



MONTHLY LABOR REVIEW

July 1970

U.S. DEPARTMENT OF LABOR  
Bureau of Labor Statistics

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PER

*In this issue*

Union membership  
and labor-management policies  
in public employment





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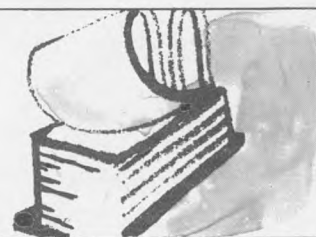
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## Labor Month in Review



**Employment in perspective.** The slowdown in economic activity has had a strong impact on employment and unemployment in the first 5 months of 1970. Employment showed hardly any growth from December to April and declined substantially in May. Unemployment, on the other hand, has risen steadily. The jobless rate (seasonally adjusted) climbed from 3.5 percent of the labor force in December to 5 percent in May.

The rise in unemployment has affected industrial sectors, labor force groups, and geographic areas somewhat unevenly.

**Industries and Regions.** A drop of nearly 700,000 jobs in manufacturing between July 1969 and May 1970 was largely confined to the durable goods segment, although employment in "soft" goods manufacturing was increasingly involved. Elsewhere in goods producing industries—mining, construction, agriculture—employment has not grown since the fall of 1969. In the service-producing sector, employment increased all through 1969 but has grown very little since February.

Among durable goods industries, job cuts were most severe in aerospace and ordnance. Aerospace lost about 110,000 jobs (seasonally adjusted) or about 13 percent of industry employment since July 1969; ordnance, about 70,000 jobs, a full 21 percent of industry employment. Cutbacks in government contracts as well as the economic slowdown were blamed.

Elsewhere in durable goods industries, automobile manufacturers cut back employment by about 30,000 jobs since mid-1969 because of weakening sales. Low housing starts and the overall construction slowdown due to tight money contributed to a reduction of jobs in contract construction and in building materials industries over the same period. Cutbacks in defense outlays and the generally weaker economy figured in job reductions in fabricated metal products, machinery, electrical equipment, and other industries.

Among regions, the Pacific Coast and the Mid-

west, home of much durable goods production, have suffered somewhat sharper rises in unemployment. Stemming principally from increased joblessness in the aerospace and defense-related industries, unemployment on the Pacific Coast, which has about 13 percent of the Nation's work force, accounted for about 20 percent of the increase in State-insured unemployment between April 1969 and May 1970. The housing slump also boosted unemployment by causing a decline in lumber production. In the Midwest, increased unemployment resulted mainly from cutbacks in durable goods production in general and automobile manufacture in particular.

**Jobless workers.** Until March, workers continued to enter the labor force at a brisk pace despite a sharp fall-off in employment opportunities. This may turn out to be the usual lag in labor force reaction to worsening job prospects. Between December 1969 and April 1970, the labor force expanded by 1.3 million while total employment rose by only 200,000, resulting in a sharp increase in joblessness. Following up more moderate growth in April, the labor force declined in May by 300,000. This decline in the labor force occurred in conjunction with a decrease in the number of employed persons amounting to about half a million (seasonally adjusted) between April and May.

Professional and technical workers' and craftsmen's unemployment rates rose faster than others but rates remained much higher for less skilled workers. The unemployment rate of white-collar workers rose from 2.1 percent in December 1969 to 2.8 percent in May 1970. Initially, much of the rise occurred among professional and technical workers (whose jobless rate doubled since early 1969 to just over 2 percent) but has now spread to other white-collar workers. Among blue-collar workers, unemployment rose from 4.3 percent in December to 6.2 percent in May. Again, the sharper rise occurred among higher skilled workers—

craftsmen and operatives—rather than the lesser skilled. These unemployment increases reflect the concentration of the higher joblessness in industries, such as aerospace and defense, that use relatively little low-skill labor.

When anti-inflation measures were instituted last year, considerable fear was expressed about employment opportunities for Negro workers in a slack economy. But the increase in Negro unemployment (from 6.5 percent in July 1969 to 8.0 percent in May 1970) has been more moderate, as a proportion of the July rate, than the increase for whites (from 3.2 percent to 4.6 percent). This has resulted in a significant narrowing of the better than 2-to-1 ratio between the white and Negro unemployment rates that has persisted for the last 15 years.

It is not clear as yet whether the relative improvement in the Negro rate will be permanent (resulting from occupational upgrading, the impact of Government manpower programs, and increased social consciousness among employers) or is another short-lived narrowing of the ratio, which has occurred in previous economic slow-downs. One factor contributing to the narrowing is that Negro employment is more heavily con-

centrated in service-producing industries, which have been least affected by the jobless rise, than in hard-goods industries—such as aerospace and ordnance—where blacks are under-represented.

Bureau of Labor Statistics Report 380, available from BLS regional offices, offers a more detailed examination of these developments.

**Women's rights.** Eleven women and two men, asked by President Nixon to appraise the effectiveness of programs to enhance women's rights, have examined the programs and found them wanting.

The Task Force on Women's Rights and Responsibilities, chaired by Miss Virginia R. Allan, a former president of the National Federation of Business and Professional Women's Clubs, told Mr. Nixon that the United States "lags behind other enlightened, and indeed some newly emerging countries in the role ascribed to women." Discriminatory practices and "ancient entrenched injustices" against women are "so widespread and pervasive" in the United States that "they have come to be regarded, more often than not, as normal."

The report warned that "American women are

### Mollie Orshansky wins first Lawrence R. Klein award

An article by Mollie Orshansky explaining "How poverty is measured" has been cited as "the best original article in labor economics or related subjects appearing in the *Monthly Labor Review* during 1969."

The selection, by the trustees of the Lawrence R. Klein Fund, is the first since the Fund was established by friends of Lawrence R. Klein, editor-in-chief of the *Review* from 1946 until his retirement in 1968. The award carries a \$100 prize and will be made annually.

Miss Orshansky is a social insurance research analyst in the Office of Research and Statistics, Social Security Administration, and a frequent contributor to the *Review* and other publications. "How poverty is measured" appeared in the February 1969 issue of the *Review*, as one of five articles under the heading, "Perspectives on poverty." Reprints

of the "Perspectives on poverty" articles are available, in limited supply, from BLS regional offices.

In addition to citing Miss Orshansky's article, the Lawrence R. Klein Fund trustees made honorable mention of two other *Review* articles: "Bargaining in major symphony orchestras," by Leon Lunden of the BLS Office of Wages and Industrial Relations, in the July 1969 *Review*, and "Fiscal policy from Hoover to Heller," by Dudley Dillard, chairman of the Department of Economics, University of Maryland, in the August 1969 *Review*.

According to the Lawrence R. Klein Fund trustees, awards are based on the following criteria: Originality of idea or method of analysis, adherence to principles of scientific inquiry, and adherence to the principles of good writing.

increasingly aware and restive over the denial of equal opportunity, equal responsibility, even equal protection of the law. An abiding concern for home and children should not, in their view, cut them off from the freedom to choose the role in society to which their interest, education, and training entitle them."

The task force pointed to the close link between the struggle for equality for women and the past "decade of rebellion during which black Americans fought for true equality." That battle still rages, the report emphasized. "Nothing could more dramatically demonstrate the explosive potential of denying fulfillment to any segment of our society."

Noting that "sex bias takes a greater economic toll than racial bias," the task force urged the Government to "be as seriously concerned with sex discrimination as race discrimination and with women in poverty as men in poverty." Failure to act, the report warned, will run the risk of "accelerating militancy or the kind of deadening apathy that stalls progress and inhibits creativity."

**Actions proposed.** The task force asked the President to act in five broad areas:

- Establish an Office of Women's Rights and Responsibilities, whose director would serve as a special assistant reporting directly to the President.

- Call a White House Conference on women's rights and responsibilities in 1970, the 50th anniversary of the ratification of the suffrage amendment and establishment of the Women's Bureau.

- Send a message to Congress citing the widespread discriminations against women and proposing specific legislation to remedy these inequities.

- Require Cabinet-level actions to implement existing policies against sex discrimination.

- Appoint more women to positions of top responsibility in all branches of the Federal Government.

Leading the list of legislative goals proposed by the task force is a controversial Constitutional amendment that says: "Equality of rights under the law shall not be denied or abridged by the United States or by any State on account of sex." The task force emphasized that adoption of the amendment "would impose upon women as many responsibilities as it would confer rights." The amendment is necessary, the report pointed out,

because the Supreme Court "has upheld or refused to review laws and practices making discriminatory distinctions based on sex," including the practice of excluding women from State universities, and a law requiring longer prison sentences for women than for men for the same offense.

The task force also recommended that civil rights laws be amended specifically to include women in their protection, that the Equal Employment Opportunity Commission be empowered to enforce the law, and that Social Security, Fair Labor Standards, and tax laws be amended to ensure full equality for women.

Finally, the report urged Government agencies to collect, tabulate, and publish economic and social data by sex as well as by race so as not to "obscure the degree of economic handicap women suffer."

**Guidelines.** As the White House released the Task Force report, the Department of Labor acted to implement one of the group's recommendations. The Department issued guidelines to assure equal opportunity for women on work paid for by Federal funds. The guidelines forbid Federal contractors to: Use newspaper ads labeled "male" and "female" unless sex is "a bona fide occupational qualification;" penalize women employees for taking time off to have children; deny employment to women with young children unless the same policy applies to men; base seniority solely on sex; restrict one sex to certain job classifications and departments; maintain different retirement ages for male and female employees; refuse a woman a job she is qualified to perform because of a State's "protective" labor law. The Department of Labor's Office of Federal Contract Compliance will enforce the new prohibitions and may withhold contracts from contractors who fail to comply.

### 'Review' wins Editors Award

The Federal Editors Association has presented one of its Blue Pencil Awards "for outstanding Government publications produced in 1969" to the *Monthly Labor Review*. The *Review* was one of 232 publications entered in 20 categories and won second prize in its field.

# Changing policies in public employee labor relations

One task force report supports "meet and confer" statutes; another, advocates collective negotiations

JOSEPH P. GOLDBERG

EXPERIENCE DURING THE PAST decade has resulted in reexamination and revision of established policies in public labor-management relations and the establishment of new policies. The Federal Government, through its innovative Executive Order in 1962, further study of the issues, and a resultant revised Executive Order in 1969, has contributed much to this new spirit, as well as providing possible guides to policy. The agreement recently negotiated following the strike in the U.S. Post Office Department adds new facets to Federal policy.

The huge growth in State and local government employment has made these equally important foci for public employee policies, as Federal labor law specifically excludes these employees. The States have become important sources of experience as well, particularly in the variety of legislative policies and proposals among them. Although most recent State enactments have authorized collective negotiations (with attendant rights and machinery) and avoided explicit sanctions in the event of strikes, these are effective in only a minority of the States. (See table 1, pp. 8-10.) A few have only "meet and confer" rather than negotiation statutes. Others have legislation only for specific occupational groups. The majority of States do not have statutes encouraging employee organization or providing machinery for regularizing public labor-management relationships.

## The setting

The growth of public employee organizations, and increased negotiations and strikes in the public sector, have been subject to continuing and widening exploration of public employee policies at Federal, State, and local levels. The spirit of

such scrutiny has generally been one of accepting the rights of public employees, of providing them with a status consistent with that of private employees, and accommodating the special circumstances of public employment. The public sector's particular requirements, such as the need to continue public services, the absence of market factors permitting tests of strength through strikes and lockouts, and the traditional view of the sovereignty of the State, have served to restrain the full applicability of labor policies taken over from the private sector—but have not restrained the basic trend. Even the long-held view of government sovereignty vis-a-vis negotiations and agreements with government employees and their organizations is being reevaluated. Strikes and strike sanctions continue to be an integral subject of debate, but generally these are viewed as symptoms of conditions requiring for their resolution avenues to regularizing the rights of public employee organizations and systematizing the arrangements for making these effective in dealing with public employees. It is the widespread view that such arrangements will work toward the elimination of the instability which has produced wide strike activity.

There has been a significant trend in the past decade in the States toward accepting employee organizations, collective negotiations, representation machinery, and provisions for meeting strike impasses but some observers view divergent and lagging developments as making for an intensification of strike activity. The different positions of the employee organizations is a recognizable factor in the diversity. However, all such organizations may be said to support the need for requiring collective negotiations and exclusive recognition, with civil service employee associations competing with labor unions for representation rights. The divergences among employee organizations are reflected in the evolution of union and some

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employee association support for national legislation establishing national machinery and national minimum standards, albeit authorizing State and local arrangements meeting or exceeding these.

### Recent studies and membership trends

Additional ingredients in this stimulating mix of policy have been provided by a number of public commissions. Continuing exploration by commissions in various States has resulted in recommendations for statutory terms for public employee labor-management relations, most recently in Colorado, Tennessee and Pennsylvania.<sup>1</sup> The National Governor's Conference has issued annual supplements to its initial Report of the Task Force on State and Local Government Labor Relations, which endorsed statutes requiring collective negotiations.<sup>2</sup> The report of the Advisory Commission on Intergovernmental Relations (ACIR) is a more recent national expression of such recommendations, along with a substantial review of State and local labor-management policies. A majority of its 27 participants—including private citizens, U.S. Senators and Congressmen, Federal Government officials, Governors, Mayors, State legislators, and elected county officials—have stated that “it tends to view the meet and confer in good faith approach as being the most appropriate in a majority of situations in the light of present and evolving conditions in State and local employment.” This view evoked a substantial and forceful dissent from a varied composition of its members, who support the requirement of collective negotiations.<sup>3</sup> Spokesmen for AFL-CIO unions in the public employee field have criticized the recommendation as a “backward” step.<sup>4</sup>

A new overview of the problem has been contributed through the privately endowed Twentieth Century Fund, a long-time contributor to policy development in the private sector, through its Task Force on Labor Disputes in Public Employment. The latter consisted of experts and practitioners in both the public and private labor-management sectors. Among other recommendations, the report endorses the statutory requirement that “the public employer has the duty to meet and negotiate with the union” and “that agreements be reduced to writing.” There was a split on the breadth of the recommended ban on public employee strikes.<sup>5</sup>

In the following summary discussion, varied

practice and recommendations are summarized along with the considerations which are deemed characteristic of the public sector.

Public employee organization has grown at a rapid rate over the past decade, as total public employment increased by 45 percent (from 8.4 million in 1960 to 12.2 million in 1969) with a rise of 22 percent in Federal employment (from 2.3 million to 2.8 million) and of about 56 percent in State and local employment (from 6.1 million to 9.5 million). The membership of government employees is divided among labor unions and employee associations. Union membership of government employees doubled between 1960 and 1968, from 1.1 to 2.2 million. Approximately 50 percent of Federal employees are members, while about 8.5 percent of State and county employees are represented by the 804,000 union members at that level.

Substantial membership of State and county employees in employee associations, together with union membership, account for about 25 percent of all State and county employees. The National Education Association with its 1.1 million members supports affiliates which resort to strikes as a last resort and has acknowledged the possibility of a future closer relationship with the American Federation of Teachers.<sup>6</sup> The Assembly of Governmental Employees, a loosely confederated organization of mainly State associations of public employees, stresses philosophical differences with the unions over the merit system and strike prohibition, but acknowledges that it engages in substantially the same techniques as unions in competing with them for exclusive representation. It reported a membership of over 500,000 in 1969.<sup>7</sup> A recent BLS study reports a membership of about 265,000 members of local associations of public employees in 438 cities, competing with national unions for representation rights.<sup>8</sup>

### Present policies

The issues involved in the growing number of public employee strikes reflect the changed state of public employee labor relations. Next to efforts to bring wages and fringe benefits into line with private sector earnings, strikes over union representation and union security issues were most prominent, reflecting both the frequent absence in the public sector compared with the private



sector of statutory machinery for representation arrangements and efforts to obtain initial agreements.<sup>9</sup>

Federal labor-management policies are currently governed by Executive Order 11491, Labor-Management Relations in the Federal Service, issued in October 1969, revoking Executive Order 10988, Employee-Management Cooperation in the Federal Service. The revisions in the new Order are based on a review of experience and proposals made by labor organizations, agency officials, and nongovernmental experts.<sup>10</sup>

Under the new order, the term "labor organization" replaces "employee organization." Employees continue to have a free and protected right to join or not join labor organizations. Organizations of supervisors and managers are excluded from the term "labor organization." Exclusive recognition is now the sole form of recognition, to be accorded to an organization receiving the majority of votes cast in a secret ballot election conducted in an appropriate unit.

Agencies and labor organizations are required to meet and confer in good faith on personnel policies and practices and working conditions, subject to applicable law and regulations, and execute written agreements or memoranda of understanding. Excluded from the requirement to meet and confer are the mission of the agency; its budget (including wages and fringe benefits), organizational setup, number of employees, and the grades and numbers of employees assigned; the technology of its work; and its internal security practices. The parties may, however, negotiate agreements on arrangements for employees adversely affected by the realignment of work forces or technological change. Management rights, in accordance with applicable laws and regulations, are specified and reserved. While no agreement may require an employee to join or remain a member of a labor organization, dues check-off is authorized on the basis of voluntary, written authorization. Grievance procedures may be negotiated which meet the requirements set by the Civil Service Commission, and may include arbitration of employee grievances and of disputes over the interpretation of existing agreements. Agreements must be approved by the agency head if they conform to applicable laws and regulations.

Consultation rights may be accorded by an agency on a national basis only to a labor organization that qualifies under criteria established by

the Federal Labor Relations Council. The labor organization must be provided an opportunity to comment on proposed personnel changes, and its views will be carefully considered. Supervisors or associations of supervisors will be provided a system for intramanagement communication and consultation within an agency. However, provision is made for continued or initial recognition of units for management officials or supervisors represented by labor organizations which traditionally or historically have represented such groups in private industry and which already hold exclusive representation for such units in any Government agency.

Standards of conduct for labor organizations and management are extended, making them comparable to those for private sector unions. Recognition may only be accorded to a labor organization free of corrupt influences and of influences opposed to basic democratic principles. They must file financial and other reports, provide for bonding of officials and employees of the organization, and meet trusteeship and election standards. Certain unfair labor practices by management and labor organizations are prohibited. Strike action or picketing in a labor dispute by a labor organization is an unfair labor practice. Strikes continue to be banned by Federal statute.

Major innovations in the new Executive Order include the centralization of basic aspects of the administration of the Federal labor-management relations policy. A Federal Labor Relations Council consisting of the Chairman of the Civil Service Commission, the Secretary of Labor, and other officials of the executive branch is to decide major policy questions, develop regulations, and handle appeals from actions of the Assistant Secretary of Labor for Labor-Management Relations. The latter will decide appropriate unit questions, supervise representation elections, prescribe regulations to effectuate the provisions on the conduct of labor organizations and management, and decide complaints of violations of these. In negotiations disputes, the Federal Mediation and Conciliation Service will provide assistance. In negotiation impasses, a Federal Service Impasses Panel is established as an agency within the Federal Labor Relations Council, with discretion to consider impasses on the request of either party, following failure of voluntary arrangements. The parties may only use arbitration

Table 1. Key provisions of selected State public employee laws, including enactments as of Spring 1970

State	Employees covered	Administrative machinery	Bargaining	Representation	Dispute provisions	Strike provisions
California	State and local employees (1968 amendments do not apply to state employees).	Governmental subdivisions.	Required "to meet and confer in good faith" (1968 amendments authorized non-binding memoranda of agreement with "determination" by governing body.)	Subdivisions may adopt procedures after consultation with employee organizations; guides suggested for recognizing employee organizations.	Authorized agreement on third party in local negotiations.	
	Teachers	School district, county board of education, etc.	Required to "meet and confer."	Negotiating councils with proportional representation.	None specified	
Connecticut	Local	State Labor Relations Board (SLRB). Board of Mediation and Arbitration (BMA).	Duty to negotiate, including written agreement.	SLRB determines representative. Exclusive representation.	BMA mediates, and factfinding.	Prohibited.
	Teachers	Local Boards of Education. State Board of Education (SBE).	Duty to negotiate, including written agreement.	Procedures set forth. Exclusive representation.	SBE mediates	Prohibited.
Delaware	State and local	State Department of Labor and Industrial Relations (SDLIR). State Mediation Service (SMS).	State and county—duty to negotiate. Municipalities—Independent decision. Includes written agreement.	SDLIR determines. Exclusive representation.	SMS mediates	Prohibited.
	Teachers	Local Boards of Education. State Board of Education (SBE).	Duty to negotiate. Authorizes agreement.	Procedural guides for exclusive representation but administered by local boards. Appeal to SBE.	Authorizes local mediation and fact-finding but bans arbitration.	Prohibited. Exclusive representative loss of representation rights for 2 years; loss of dues check-off for 1 year.
Maine	Local, including teachers.	Commissioner, Department of Labor and Industry (CDLI). Public Employees Labor Relations Appeals Board (PELRAB). Board of Arbitration and Conciliation (BAC).	Duty to negotiate, including written agreement.	Exclusive recognition. Subdivisions may accord representation. Elections, if required, conducted by CDLI. Appeal to PELRAB.	May call on BAC for factfinding. Permits binding arbitration, but advisory only on wages.	Prohibited and may be enjoined. Strikes are unfair labor practice.
Maryland	Teachers	Local Boards of Education. State Board of Education (SBE).	Required to meet and negotiate. Negotiation includes the duty to "confer in good faith" and "reduce to writing" agreed upon matters.	Procedures established; local board may designate majority organization as exclusive representative. SSBE establishes rules for elections and supervises.	SBE assistance; report and recommendations.	Prohibited; penalties: revocation of exclusive bargaining representation for 2 years and loss of dues check-off for 1 year.
Massachusetts	All local, including teachers.	State Labor Relations Commission (SLRC). State Board of Conciliation and Arbitration (SBCA).	Duty to negotiate including written agreement.	SLRC determines. Exclusive representation.	SBCA factfinding	Prohibited.
	State	State Director of Personnel (SDP).	Duty to negotiate, including written agreement.	Rules for determination by SDP. Exclusive representation.		Prohibited. Strikes are unfair labor practice.
Michigan	All local, including teachers.	State Labor Mediation Board (SLMB) (separate administration of the labor relations and mediation function).	Duty to negotiate, including written agreement.	SLMB determines. Exclusive representation.	SLMB mediates grievance.	Prohibited; sanctions against strikes subject to appeal and court review.
Minnesota	State and local	Division of Labor Conciliation (DLC).	Required to "meet and confer."	DLC determines. Formal recognition to majority organizations; informal to others.	DLC mediates. Then adjustment panel for findings.	Prohibited. Continues earlier penalties against individuals, with right to review.
	Teachers	School boards.	Required to "meet and confer."	Recognition to single organization. Where more than one, proportional representation on teachers' council.	Adjustment panel for findings.	
Missouri	State and local except teachers, police, State police.	State Board of Mediation (SBM).	Required to "meet, confer and discuss," results "reduced to writing."	SBM resolves issues. Exclusive representation.		Prohibited.
Nebraska	State and local	Local jurisdictions. State Court of Industrial Relations (SCIR).	Authorizes recognition, negotiation and written agreement by public employers.	Jurisdictions may grant exclusive recognition or conduct elections. SCIR certifies.	SCIR jurisdiction may be invoked to determine terms.	Prohibited. Continues earlier penalties against individual.

Table 1. Key provisions of selected State public employee laws, including enactments as of Spring 1970—Continued

State	Employees covered	Administrative machinery	Bargaining	Representation	Dispute provisions	Strike provisions
Nebraska—Con.	Teachers.....	School boards, State Court of Industrial Relations (SCIR).	"To meet and confer" is authorized on vote of majority of school board.	Authorizes exclusive representation.	Authorized parties to establish procedures for factfinding; decisionmaking authority of SCIR may be invoked.	Prohibited.
Nevada.....	Local including teachers.	Local jurisdictions; State Local Government Employee Management Relations Board (SLGB).	Duty to negotiate.....	No strike pledge as condition for recognition; exclusive representation accorded by local jurisdiction; appeals available to SLGB.	SLG notified, and may appoint mediator; factfinding if impasse persists.	Prohibited; public employers may seek injunction; penalties for violation of injunction set out; by court, against employee organization (maximum fine), individual officers (maximum time on imprisonment); individual employees (dismissal or suspension); by public employers against individual or dismissal, demotion or suspension; withhold salaries, cancel contracts.
New Hampshire.	State.....	State Commission established.	Obligation to negotiate for purpose of reaching agreement.	State Commission conducts election and certifies results; exclusive representation.	-----	Prohibited, every agreement to contain no strike clause; employees subject to disciplinary penalties provided by law and personnel regulations for serious misconduct.
New Jersey.....	State and local, including teachers.	Division of Public Employment Relations (PERI) autonomous tripartite unit in Department of Labor and Industry, Public Employment Relation Commission (PERC) in PERD for policy and rule making.	Required to bargain, including written agreement.	Majority organization is exclusive representative. Determined by employee designation or by election. Elections conducted by and rules determined by PERC.	PERC to aid in mediation; may recommend or invoke factfinding.	States that the Act of 1968 is not to be construed to "diminish in any way the right of private employees to strike."
New York.....	All State and local...	Public Employment Relations Board (PERB) (autonomous in State Department of Civil Service).	Required to bargain, including written agreement.	Procedures for recognition by local authorities, subject to "affirmation by such organization that it does not assert the right to strike against any government..." To PERB for resolution if no local procedures, and for State employees.	a) Parties establish own procedures, b) or recourse to mediation and factfinding through PERB. c) Recommendations not accepted, legislative body or committee conducts hearing and takes action.	Prohibited; organizations may be fined and chief executive of government involved required to notify PERB. For violation, PERB to order forfeiture of representation rights and dues checkoff for such period as PERB determines. Chief executive required to deduct 2 days pay for each day employee on strike. On probation without tenure for a year. Right to review.
North Dakota...	Teachers.....	Education Fact Finding Commission (EFFC).	Required to negotiate, and written agreement.	Local board accepts majority organization, or conducts election. If disagreement, EFFC rules govern election.	Determined by parties; or call on EFFC for factfinding.	Prohibited; individual teacher may be denied full salary during period of violation.
Oregon.....	State and local.....	Public Employee Relations Board (PERB). State Conciliation Service (SCS). (PERB may assign duties to SCS).	Required to negotiate and enter agreement.	Exclusive representation; local jurisdictions may determine or call on PERB.	Local jurisdictions may determine or call on PERB for mediation and factfinding.	Prohibited.
	Teachers.....	School boards.....	Required to "confer, consult and discuss in good faith."	Local election to determine whether an employee organization or a committee representing teachers is to be exclusive representative.	Mediation.....	-----
Rhode Island....	Local.....	State Labor Relations Board (SLRB).	Required to bargain.....	SLRB determines. Exclusive representation.	Mediation by SDL with arbitration on request of either party (but decisions involving expenditures are advisory).	Prohibited.

Table 1. Key provisions of selected State public employee laws, including enactments as of Spring 1970—Continued

State	Employees covered	Administrative machinery	Bargaining	Representation	Dispute provisions	Strike provisions
Rhode Island— Continued	State.....	State agencies.	Required to bargain.....	Represents members.....	-----	Prohibited.
	Teachers.....	School boards. State Labor Relations Board (SLRB). State Department of Education (SDE).	Required to bargain.....	SLRB determines. Exclusive representation.	SDE mediation; either party may request arbitration but decisions involving expenditures are advisory.	Prohibited.
South Dakota...	State, local, including teachers.	Individual jurisdictions. State Labor Commission (S.C.).	Required to meet and negotiate with majority representative. Settlements to be implemented by ordinance, resolution, or memorandum of understanding as may be appropriate.	Formal recognition to majority organization only for members; informal recognition to any organization.	Parties may call on SLC in case of impasse.	Prohibited. State and local governments required to apply to courts for immediate relief. Penalties against organization by courts set at maximum of \$50,000 and/or imprisonment of officials for 1 year. Employees, right to appeal and court review, subject to a fine of \$1,000 and 1 year imprisonment.
Vermont.....	Local employees, excludes "professional employees".	State Labor Relations Board (SLRB). Department of Industrial Relations (DIR).	Authorized to bargain....	SLRB determines. Exclusive representation.	Mediation by DIR and governor, effort to have parties agree to arbitration, otherwise, factfinding by labor emergency board.	Prohibited; right of public employer to petition for injunction.
	State.....	State Employee Labor Relations Board (SELRB).	Required to bargain; written agreement.	SELRB certifies; exclusive representation.	SELRB may authorize factfinding.	Prohibited. Strikes are unfair labor practice.
	Teachers.....	Local boards of education.	Required to negotiate, and written agreement.	School board may waive elections for exclusive representation; or follow procedures in statute.	Parties may use mediation or factfinding.	Injunctions by court only after due hearing that action "poses clear and present danger to sound program of school education . . . is in best public interest to prevent."
Washington.....	Local.....	Department of Labor and Industries (DLI).	Required to bargain and written agreement.	Exclusive representation. Parties may decide; or invite D.L.I. to decide and conduct election if necessary.	Mediation.....	Prohibited.
	Teachers.....	School Districts. State Superintendent of Public Instruction (SSPI).	Required to meet and negotiate.	Procedures adopted locally; exclusive representation.	Assistance of committees of educators and school directors appointed by SSPI.	-----
Wisconsin.....	Local.....	Wisconsin Employment Relations Board (WERB).	Required to bargain.....	WERB determines, exclusive representation.	WERB factfinding; unless local authorities have established comparable procedures.	Prohibited.
	State.....	WERB.....	Required to bargain.....	WERB determines, exclusive representation.	WERB factfinding.....	Prohibited.

or third party factfinding with recommendations to resolve an impasse on the authorization or direction of the Panel.

**POSTAL AGREEMENT.** New facets to Federal employee policies have been provided by the recent agreement negotiated with the AFL-CIO, which includes joint sponsorship of a bill establishing the United States Postal Service as an independent government establishment, proposed pay raises, and collective bargaining over wages, hours, and working conditions generally subject to private sector collective bargaining. The coverage of wages and working conditions in bargaining in the Postal Service is a major change.

In addition, jurisdiction over unit determinations, union recognition, and adjudication of

unfair labor practice charges is assigned to the National Labor Relations Board under procedures comparable to those in the private sector. The strike impasse question, in recognition of the Federal ban on government worker strikes, is met by the provision of mediation, a 90-day cooling off period with factfinding, with final and binding third party arbitration, if the impasse persists.

### State and local developments

The ACIR report analyzed existing State statutes relating to public employees, and found 21 had comprehensive statutes, that is, statutes conferring organizational and representation rights on broad groups of State or local employees or both. Of

these, 19 required public employers to deal with employee organizations but only 14 required mandatory collective bargaining. All required the execution of binding written agreements (one on the request of either party). "Meet and confer" provisions were effective in five States, with only one requiring written agreement. Exclusive recognition was accorded the majority representative in all of the 14 States requiring mandatory bargaining, but was required in only two of the "meet and confer" States. Detailed unfair labor practice provisions for both employer and employee organizations were set forth in the statutes of eight States providing mandatory bargaining. These States generally had provisions for mediation of unresolved negotiations, with 11 also providing factfinding procedures. Two "meet and confer" States had specific provisions for mediation only of representation and recognition disputes, and none provided for factfinding.

A number of the States dealt with above had special statutes covering such occupational groups as teachers, fire fighters, employees of publicly owned utilities, and nurses. Several of the 29 States lacking legislation covering State or local employees on a broad basis do have statutes relating to organization, representation rights, or impasse settlement for special occupational groups. Some authorized organization of employees either by statute, attorney-general opinions, or court decision. (See table 1.)

This diversity, including complete or partial statutory voids in some States, and some persistent tendencies—substantially overshadowed nowadays—to stress strike prevention and sanctions, have produced a new orientation on the part of some employee organizations. Whether this orientation toward the enactment of national legislation establishing national minimum standards for representation and bargaining rights for public employees will be actively pressed remains to be seen. It is significant, however, that this is now one of the elements in the total evolutionary pattern of the law of public employment. As one union group expressed it recently:

At the State and local level the cause of collective bargaining has met with despair and prejudice. It is this sense of hopelessness, coupled with the urgent need of a program to give every public employee the dignity and decency which derive from the justice and equity embodied in collective bargaining which leads to the call for a Federal minimum standard bargaining law—a Federal labor law for public employees.<sup>11</sup>

### Legal proposal

The State, County and Municipal Workers union has been in the process of developing a model Federal statute proposal. Still in a developmental stage, provisions may include guarantees for State and public employee organization, representation and collective bargaining like those for private industry employees under the Labor Management Relations Act. It would provide for a 5-member Public Employees Relation Commission. Election rules would be like those in the private sector. All State and local employees would be covered, except elected officials, with supervisors placed in separate units. Unfair labor practices would be specified, with procedures for complaints and hearings. Written agreements would be required, with the settlement going into effect automatically if the legislature takes no adverse action within 30 days. Dues check-off would be required on voluntary written authorization, limited to the exclusive representative where one has been certified. The Federal Mediation and Conciliation Service would mediate contract negotiations at the request of either party, or on its own. If factfinding is necessary, the Service would provide the parties with a slate of factfinders, who would make recommendations for settlement, with public disclosure mandatory 15 days after the recommendations are submitted. The parties could agree to use other procedures and other agencies, or to agree to final and binding arbitration. As in the private sector, strikes would not be banned. Any State or political subdivision which enacts a law which substantially meets the provisions of the National Act could apply to the Commission for exemption from the National Act.<sup>12</sup>

A bill drafted by the National Education Association and introduced in the current Congress is entitled the "Professional Negotiations Act for Public Education 1969." It would cover the "professional employees of boards of education," excluding superintendents of schools. Professional negotiation, or "meeting, conferring, consulting, or discussing in good faith" terms and conditions of professional service would be required with execution of a written agreement if either party so requests. A Professional Education Employee Commission would be established in the Department of Health, Education, and Welfare to administer the Act. Organization rights, recognition rights, exclusive representation to majority

representatives, and voluntary dues check-off are provided for. The National Commission would conduct hearings in contested recognition situations and order elections if necessary. Either party could call on the Commission for mediation in impasse situations, or the Commission could itself declare an impasse. If mediation were unsuccessful, either party could request submission of the issues to advisory arbitration, with the arbitrators's recommendations binding only if the parties had so agreed. Strikes would be specifically permitted, with temporary or permanent injunctions being issued only where findings of fact determine that the start or continuance of a strike would pose a clear and present danger to the public health and safety, or where the employee representative has failed to make a reasonable effort to utilize the mediation, factfinding, and voluntary arbitration machinery of the act. Unfair labor practices are set out, and the Commission is authorized to issue complaints, hold hearings, and issue orders. Here again, States which establish systems equivalent to the national system could apply for exemption.<sup>13</sup>

### Other views

The reports of the Advisory Committee on Intergovernmental Relations (ACIR) and the Twentieth Century Task Force (TCTF) provide additional insights into the nature of policy views which are percolating in the development of law and practice in the public employee field. The ACIR may be said to reflect views by public managers and elected officials; the TCTF, the views of prominent impartial practitioners and legal experts. They do not necessarily encompass all of the views held by knowledgeable people.

The two reports diverge in one important respect. The TCTF report endorses collective negotiations, with one recommended principle stating that "the public employer has the duty to meet and negotiate with the union" in good faith, as is the statutory requirement in the private sector. To justify this stand, the report states: "In this matter, as in representative rights and in recognition, differences in the public and the private sectors are not such as to make inapplicable the rules of conduct legislated for private employment. As strike issues, these matters have been largely eliminated in industry. The extension of

these rules to government labor relations can be a major contribution to stability."

The ACIR also recommended the enactment of State statutes "establishing the basic relationship between public employers and their organizations in arriving at the terms and conditions of employment; absence of such legislation tends to encourage chaotic labor-management relations, especially in local governments where the evolution of these relationships is left to chance and to the ebb and flow of political power and influence of employees and their organization and to widely varying administrative and judicial interpretations." The report stated that two routes were available for implementation, either collective negotiation or meet and confer provisions. The following are partial characterizations of these presented in this report: "While both systems involve continuing communication between the employer and employee representatives, under collective negotiations both parties meet more as equals. . . . Under a meet and confer system, the outcome of public employer-employee discussions depends more on management's determination than on bilateral decisions as 'equals.'"

"Given contemporary and evolving conditions in State and local employment," the majority ACIR view was to endorse the meet and confer in good faith approach. Stating that its recommendation was directed to those government seats which lack laws or formal policies on the subject—29 States, two-thirds of the municipalities with populations over 100,000, and half of the urban counties surveyed—the report stated: "these jurisdictions not only have failed to come to grips with a pressing intergovernmental issue, they have forfeited their basic responsibilities over to the courts, to the bureaucracy, and to the unpredictable play of political forces and the influence of employee groups." In the view of the majority, the obligation to "meet and confer *in good faith*" converts "the system into something broader and more balanced than the 'meet and confer' setup, but still something less than the glittering and often unfulfilled promises of a collective bargaining statute."

Express support for collective negotiations came from 7 of the 26 ACIR members.<sup>14</sup> Several of their views pointed to the prevailing trend in the State legislation enacted during the past decade toward requiring collective negotiations. All preferred collective negotiations, but some would have left "meet and confer" as at most a transi-

tional alternative leading soon to negotiations.

The question of the right of public employees to strike continues to be a major issue in the consideration of appropriate legislation. Equally prominent in the deliberations are considerations of machinery to avoid strikes. The predominant view has been that statutory provisions assuring the right to organize, bargain collectively, together with the provision of machinery to deal with grievances, representation rights, and unfair labor practice charges would have as stabilizing an effect on public employee relations as they have had in the private sector. That this has not been so in some instances has resulted in emphasis also being placed on machinery to deal with bargaining impasses to avoid strike situations.

The ACIR report and a majority of the TCTF supported continuance of the prevailing ban on public employee strikes, under all circumstances. Within the task force, however, a minority went along with a universal strike ban only for firemen and policemen; for other public employees, only if the terms and machinery established by agreement had not been exhausted or when the public health and safety were truly imperiled as established by court findings. It may also be noted that two State commissions, those of Colorado and Pennsylvania, recommended a limited right to strike for public employees, where these did not contravene contract terms and procedures, and where the public health and safety were not affected. These recommendations have not been incorporated in statutes, however. (See Vermont statute relating to teachers in table 1.)

Views on banning strikes give great emphasis to the provision of alternatives to strikes. The TCTF states that: "Threatening disputes should be subject to intense and continuing negotiations between the parties until all hope of agreement in that forum is exhausted. Then the techniques of mediation should be applied, and if that fails it should be followed by factfinding that will recommend the terms on which the disagreeing parties should end their disputes." The ACIR also stresses the need for avenues for eliminating impasses in two recommendations. States should "mandate the use of specific procedures (for example, fact-finding, mediation, and advisory arbitration)" to resolve impasses under one recommendation. Under another recommendation, only mediation would be mandated, with the suggestion of State legislative authorization of additional steps.

Both the ACIR and the task force stress the need for the States to enact legislation to regularize labor-management relationships, including the establishment of independent agencies to administer the statutes. The ACIR recommendations are, of course, geared to the "meet and confer in good faith approach" and the task force to the more evident trend to collective negotiations.

Additional matters are covered in the reports, indicative of the efforts to meet significant issues which arise in employee relationships. The ACIR would require that State laws treat both State and local employees uniformly; the task force lays down general principles which are intended for uniform application. The ACIR would accord full "meet and confer" rights to the majority representative, but would not preclude informal recognition of minority group representatives. The TCTF stressed exclusive representation of the majority unions selected by employees as providing "the basis for a genuine bilateral union-management relationship." The ACIR does not deal directly with appropriate bargaining units in its recommendation, but would exclude supervisors from the grant of employee rights and privileges, while permitting them to join and be represented by organizations restricted to supervisors through which they could consult with employers on an informal basis. The TCTF stressed the practical need in public service for the largest possible unit for recognition, to avoid distortion resulting from fractionalized negotiations on cost items among agencies. The task force noted the provisions for separate units for employees and their supervisors in the Federal law for private employees and recommended that the independent labor relations agency adjudicate representation questions among its functions.

In line with its "meet and confer in good faith" recommendations, the ACIR proposed "joint effort in drafting a nonbinding memorandum of understanding setting forth all the agreed upon recommendations for submission to the jurisdiction's governing officials." The TCTF stressed that: "when an agreement between the public employer and a union has been reached, it should be reduced to writing with both affixing their signatures to it," as involving more than a symbolic gesture, in providing a documentary reference if future questions arise over the agreement. On subjects which may be covered by memorandums of understanding, the ACIR would include

"wages, hours, and other conditions of employment as fall within the statutorily defined scope of the discussions," with State statutes explicitly setting forth detailed management rights. The TCTF also recognized that some matters are covered by legislation and constitutional provisions in some States, thus limiting the authority of an administrator in an organized agency.

The TCTF further noted that labor agreements in the private sector and in State and local contracts contain management rights provisions, as well as in Federal Executive Order 11491. To cover the variety of discretionary authority possessed by public authorities, it stressed the need for "viable negotiations," which would not extend beyond the employer-agency's authority to make binding commitments. It emphasizes, however, that "no subject should be barred from consultations and discussion—in contrast to negotiations—however restricted the autonomous powers of the employer agency." Such limitations "may appear unduly restrictive to a healthy labor-management relationship," in the light of private experience. The task force goes on to state, "However, the government employee organization has a recourse not available to the union

in private industry: it may take what it can get in limited negotiations, then lobby the legislature for nonnegotiable items."

HIGHLIGHTS of the mix of thinking now evident in the field of State and local employee-management relations indicate the complexities of the subject. To date, the recent trend in State legislation has been to comprehensive statutes providing for collective negotiations, with machinery comparable to that in the private sector. The absence of such action in the majority of States has produced the cross-currents already described: Employee organization proposals for national legislation establishing minimum standards; the ACIR majority recommendations for "meet and confer in good faith" State statutes as an acceptable approach for States which have otherwise failed to act; and the TCTF proposals for further extension by States of the collective negotiations legislation that has emerged as the prevailing approach in States which have acted. In the meantime, the pressures of employee unions and associations for representation rights and improved conditions are having their own impact on the developing trends. □

—FOOTNOTES—

<sup>1</sup> For analysis of earlier reports of State commissions, see J. P. Goldberg, "Labor-Management Relations Laws in Public Service," *Monthly Labor Review*, June 1968, pp. 48-55; Russell A. Smith, "State and Local Advisory Reports on Public Employment Labor Legislation," *Michigan Law Review*, March 1969, pp. 891-918.

<sup>2</sup> Supplement to *Report of Task Force on State and Local Government Labor Relations*, Committee on Executive Management and Fiscal Offices, National Governor's Conference (Chicago, Public Personnel Association, 1969).

<sup>3</sup> Advisory Commission on Intergovernmental Relations, *Labor-Management Policies for State and Local Government, 1969*, p. 99. The ACIR was established by Public Law 380, 86th Cong., 1st Session, 1959. The Commission includes 3 private citizens, 3 members of the U.S. Senate, 3 members of the U.S. House of Representatives, 3 officers of the Executive Branch, U.S. Government, 4 Governors, 4 Mayors, 3 State legislators, and 3 elected county officials.

<sup>4</sup> *AFL-CIO News*, April 4, 1970, p. 6.

<sup>5</sup> *Report and Recommendations of the Twentieth Century Fund Task Force on Labor Disputes in Public Employment, 1970*. Members participating as individuals were: Archibald Cox, Harvard University; Charles C. Killingsworth, Michigan State University; Joseph H. Loftus, U.S. Department of Labor; John W. Macy, Jr., Former Chairman, U.S. Civil Service Commission; Walter E. Oberer, Cornell University; William Simkin, Former Director, Federal

Mediation and Conciliation Service; George W. Taylor, University of Pennsylvania; Saul Wallen (deceased); and Edwin E. Young, University of Wisconsin.

<sup>6</sup> National Education Association, press release, January 25, 1970.

<sup>7</sup> ACIR report cited, pp. 123-124.

<sup>8</sup> BLS Summary Report, Municipal Public Employee Associations, January 1970.

<sup>9</sup> Sheila C. White, "Work Stoppages of Government Employees," *Monthly Labor Review*, December 1969, pp. 29-34.

<sup>10</sup> Presidential Review Committee on Employee Management Relations in the Federal Service, 1968; Study Committee on Labor Management Relations in the Public Service, Report and Recommendations, 1969.

<sup>11</sup> AFL-CIO Maritime Trades Department, *Final Report: Collective Bargaining in the Public Sector, 1969*, pp. 35-36.

<sup>12</sup> *The Public Employee*, January 1970, p. 12.

<sup>13</sup> 91st Congress, 1st Session, S. 1951.

<sup>14</sup> Dissenting or excepting views were submitted by Robert P. Knowles, State Senator, Wisconsin; Edwin G. Michaelian, elected County official, Westchester County, New York; Raymond P. Shafer, Governor, Pennsylvania; Edmund S. Muskie, U.S. Senator, Maine; Robert P. Mayo, Director of the U.S. Bureau of the Budget; and Nelson A. Rockefeller, Governor, New York.



Personnel, budget  
and other policies  
of all levels of government  
will be affected  
by union advances

HARRY P. COHANY AND LUCRETIA M. DEWEY

# Union membership among government employees

THE UPSURGE in the past decade in union membership at all levels of government, Federal, State and local, surprised not only public officials, but also those considered knowledgeable in labor matters. Membership growth—after dramatic gains before and during the World War II period—had reached a plateau during most of the 1950's and the outlook for further advances appeared dim. Blue-collar workers, the traditional mainstay of the labor movement, were already organized in most manufacturing and nonmanufacturing industries, while white-collar workers had repeatedly spurned offers to sign up.

White-collar workers were the fastest growing sector of the labor force and the proportion of manual workers was expected to decline because of automation, leading to widespread speculation about the "stagnation" and even the "crisis" of the labor movement.

A number of obstacles to union growth were held to exist in the public sector. It was asserted frequently that government as an employer could not legally engage in collective bargaining, since this would violate the concept of sovereignty and lead to an illegal delegation of powers. Furthermore, it was held that government operations and conditions of employment differed so markedly from those in private industry that practices and approaches developed in the latter were wholly inapplicable to the public sector. Wages and terms of employment generally were set by legislation and subsequently implemented by Civil Service Commission directives, agency regulations, and so on, thereby removing these issues from bargaining or any other form of joint decisionmaking between managers and employees. These views, it should

be noted, were held not only by agency heads and large sections of the public but by government employees as well. Perhaps, because of the largely unquestioned acceptance of the "conventional wisdom" in this area, union growth in the public sector was insignificant until the start of the 1960's, although unions made up in whole or in part of government employees go back to World War I and earlier.

For reasons not fully understood even now, things changed unexpectedly and rapidly during the 1960's. A number of explanations for this development have been put forth and these will be discussed later in the article. For the sake of perspective, however, it is necessary to look first at union gains in absolute and relative terms.

## Dimensions of growth

In 1956, the year the Bureau of Labor Statistics started collecting data on union membership by industry, 915,000, or 5.1 percent of a total membership of 18.1 million were in government (table 1). In 1962, the number had grown to 1.2 million, or 7 percent of total membership, and by 1968, union membership among government employees had climbed to 2.2 million, 10.7 percent of total membership. During the period 1956-68, membership in all unions increased by 2.1 million of whom more than 1.2 million were in government. At the same time, gains in manufacturing and nonmanufacturing industries were only 379,000 and 487,000, respectively. While government unions scored gains of 135.5 percent, those in private industry were held to about 5 percent. All indications point to further advances in the public sector in 1969 and 1970 so that union membership as of mid-1970 is likely to exceed 2.6 million.

Not all elements of the labor movement shared in these gains. The major beneficiaries were unions

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affiliated with the AFL-CIO, which enrolled more than 1 million public servants during 1956-68, compared with 226,000 for those outside the Federation. In 1968, the last year for which data are presently available, 78 percent of the 2.2 million members in government were in AFL-CIO unions:

Membership (in thousands):	Total	AFL-CIO	Independent
1956.....	915	669	247
1960.....	1,070	824	247
1964.....	1,453	1,116	337
1968.....	2,155	1,682	473
Percent change:			
1956-60.....	16.9	23.2	-----
1960-64.....	35.8	35.4	36.4
1964-68.....	48.3	50.7	40.4

These changes also are reflected in the growth figures for particular unions. Prior to 1960, only three government unions had 100,000 members or more; by 1968, there were six well above this size (table 2). Between 1956-68, unions in government did better than the average growth in membership. The American Federation of Government Employees (AFL-CIO) grew by 360 percent; the American Federation of Teachers (AFL-CIO) by 230 percent; and the American Federation of State, County and Municipal Employees (AFL-CIO) by 143 percent. Since 1968, the AFGGE has reported a further increase of 30,000 members, reaching a total of 325,000, the AFT now claims 190,000, a gain of 25,000, and AFSCME rolls are up by 76,000 to a total of 440,000. In addition to those unions whose jurisdiction was confined to the public sector, significant breakthroughs among govern-

ment employees were also scored by unions primarily active in private industry, such as the Service Employees (AFL-CIO), Machinists (AFL-CIO), Laborers (AFL-CIO), and a number of craft unions.

Comparison of membership at the various levels of government for 1968 show almost 1.4 million in Federal service (63 percent of the total), and 800,000 in State and local jurisdictions. During 1966-68, the rate of expansion in both major levels was about 25 percent.

In terms of union penetration, unions in the Federal service have fared far better than those in other jurisdictions. In 1968, one-half of all Federal employees were union members (table 3)—a surprising statistic when compared with the situation in 1960. Although a large proportion of the membership was in a single department (the Post Office, which was better than 80 percent organized), major clusters were also found in a host of other agencies and installations covering professional, clerical, and blue-collar workers. Less than 10 percent of State and local employees was organized, although the number of those represented by associations or "near-unions" should be added to this figure to arrive at an overall assessment. For all of government, about one out of every five employees was a union member in 1968, a rate that has moved upward steadily throughout the last decade.

By State, government union membership varied greatly in 1968 from a low of 2,000 in Wyoming to a high of 309,000 in New York (table 4). However, union membership was concentrated in a few States. Of the total of 2.2 million, three States—California, New York, and Illinois—together accounted for about 1 out of 3 members. These three States, and Pennsylvania, Michigan, Ohio, Massachusetts, and the Maryland-D.C. area had over one-half of the total.

The States with the largest number of government union members are not always those in which unions have scored their greatest organizing successes. New York, California, and Illinois, which have the largest number of members, ranked 3rd, 34th, and 8th in terms of the proportion of government employees organized. Similarly, no strong relationship exists between the extent of organization among government employees and that among employees in nonagricultural establishments generally. West Virginia,

**Table 1. Union membership by sector, 1956-68**

[Numbers in thousands]

Year	Total <sup>1</sup>	Manufacturing		Nonmanufacturing		Government	
		Number	Percent	Number	Percent	Number	Percent
1956.....	18,104	8,839	48.8	8,350	46.1	915	5.1
1958.....	17,968	8,359	46.5	8,574	47.7	1,035	5.8
1960.....	18,036	8,591	47.6	8,375	46.4	1,070	5.9
1962.....	17,564	8,050	45.8	8,289	47.2	1,225	7.0
1964.....	17,920	8,342	46.6	8,125	45.3	1,453	8.1
1966.....	19,126	8,769	45.8	8,640	45.2	1,717	9.0
1968.....	20,210	9,218	45.6	8,837	43.7	2,155	10.7
<b>ABSOLUTE CHANGE</b>							
1956-60.....	-68	-248		-25		155	
1960-68.....	2,174	627		462		1,085	
1956-68.....	2,106	379		487		1,240	
<b>PERCENTAGE CHANGE</b>							
1956-60.....	-.4	-2.8		-.4		16.9	
1960-68.....	12.1	7.4		5.5		101.4	
1956-68.....	11.6	4.3		5.8		135.5	

<sup>1</sup> Includes membership outside the United States.

for example, ranked first in terms of union membership in nonagricultural establishments, but only 45th in the extent of union membership among government workers. Ranked first among government employees, Rhode Island is only 22d in rank in terms of total membership of nonfarm workers. One-fifth of the States rank in roughly the same positions in both categories. Thus, a relatively high degree of organization in private industry is not necessarily associated with similar gains in the public sector.

Of more than ordinary interest in looking at these figures are union successes in organizing white-collar workers, an area where only meager gains have been recorded in the past. The last BLS survey estimated 900,000 white-collar members in government unions, or 42 percent of total government enrollment. This figure has more than doubled since 1960 when it was estimated at 409,000. Between 1964 and 1968, white-collar membership in all unions increased by 590,000, of which 262,000 was accounted for by those in government. Massive additions to union ranks of

professional and clerical employees in the public sector may well presage similar breakthroughs in private industry. At present, however, white-collar members constitute a greater proportion of all union members in government than they do in the private sector—nearly 42 percent in the former compared with 4 percent in manufacturing and 21 percent in nonmanufacturing.

	1960	1964	1968
Total white-collar membership (in thousands).....	2,192	2,585	3,176
Estimated number in government unions (in thousands) ..	409	636	898
Percent in government unions.....	18.7	24.6	28.3
White-collar membership as a proportion of all members in government.....	38.2	43.8	41.7

It should be emphasized that all of the figures discussed refer to union members only. Not infrequently, the number of workers represented by unions far exceeds those on their books. Thus, union bargaining strength is in many jurisdictions far greater than is apparent from membership figures alone.

As noted, a complete evaluation of union gains would also have to take account of those organ-

**Table 2. Total membership of selected unions with the major proportion of their membership in the public service, 1952-68<sup>1</sup>**

Union	1952	1954	1956	1958	1960	1962	1964	1966	1968	Percent change, 1956-68 <sup>2</sup>
<b>UNIONS OF FEDERAL EMPLOYEES</b>										
Total.....	452,242	526,033	533,433	545,709	535,277	667,021	793,458	933,035	1,100,087	106.2
ASCS County Office Employees, National Association of (Ind.).....						12,888	14,098	14,300	14,130	8.6
Federal Employees Association (Ind.).....	90,000	99,000	98,000	90,000	53,000	49,500	40,000	80,000	95,000	-3.1
Government Employees, American Federation of.....	48,000	62,000	64,000	60,000	70,322	106,042	138,642	199,823	294,725	360.5
Government Employees, National Association of (Ind.).....							15,000			
Internal Revenue Association (Ind.).....						27,125	27,000	24,130	26,360	-2.8
Letter Carriers, National Association of.....	95,000	103,000	108,000	110,000	138,000	150,114	167,913	189,628	210,000	94.4
Letter Carriers, National Rural Association of (Ind.).....	34,570	36,355	35,900	36,723	38,321	35,852	42,300	40,340	41,192	14.7
Messengers, National Association of Special Delivery.....	2,000	2,000	2,000	1,987	2,000	1,500	1,500	2,073	2,605	30.3
Post Office Clerks <sup>3</sup> .....	95,000	101,576	97,052	100,000	135,000	145,000	139,000	143,146	166,000	71.0
Post Office Craftsmen <sup>3</sup> .....		40,000	40,100	38,500						
Post Office and General Services Maintenance Employees (Ind.).....	10,000	7,549	7,700	7,700	7,400	8,000	8,424	9,237	13,175	71.1
Post Office Mail Handlers, Watchmen, Messengers, and Leaders; National Association of <sup>4</sup> .....	2,000	6,000	9,000	5,500	4,000	14,000	29,000	32,000	24,000	166.7
Post Office Motor Vehicle Employees, National Federation of.....	6,172	6,274	6,958	5,000	5,000	5,000	6,200	8,141	8,000	15.0
Postal and Federal Employees, National Alliance of (Ind.).....		19,000	18,000	18,000	18,000	25,000	26,000	37,000	45,000	250.0
Postal Supervisors, National Association of (Ind.).....	16,500	19,479	19,923	21,808	19,250	26,000	28,000	31,700	33,000	65.6
Postal Transport Association <sup>5</sup> .....	27,000	23,800	26,800	25,491	32,000	43,000	62,000	70,000	80,000	220.0
Postal Union, National (Ind.).....				25,000						
Postmasters, National Association of (Ind.).....							33,881	32,717	28,900	-14.7
Postmasters, National League of (Ind.).....	26,000				12,984	14,400	14,500	18,000	18,000	38.6
<b>UNIONS OF STATE AND LOCAL GOVERNMENT EMPLOYEES</b>										
Total.....	211,000	226,468	285,000	343,772	361,156	399,856	450,197	521,277	662,120	132.3
Firefighters, International Association of.....	76,000	85,000	85,000	93,000	95,000	109,035	115,358	115,000	132,634	56.0
State, County, and Municipal Employees; American Federation of.....	85,000	96,328	150,000	200,000	210,000	220,000	234,839	281,277	364,486	143.0
Teachers, American Federation of.....	50,000	45,140	50,000	50,772	56,156	70,821	100,000	125,000	165,000	230.0

<sup>1</sup> Unions listed below have at least 50 percent of their membership in Government service.  
<sup>2</sup> Where 1956 figures are not shown, the base period is the first subsequent year for which figures are shown.  
<sup>3</sup> Post Office Clerks and Post Office Craftsmen merged to form United Federation of Postal Clerks (AFL-CIO) on July 1, 1961.

<sup>4</sup> Post Office Mail Handlers merged with Laborers' International Union of North America (AFL-CIO) on April 20, 1968.  
<sup>5</sup> Postal Transport Association merged with United Federation of Postal Clerks (AFL-CIO) on July 1, 1961.

izations which are commonly referred to as "associations" or "near-unions." At the present time, however, no comprehensive figures for these groups exist. Various estimates place the total at between 2 and 2.5 million. The National Education Association, with more than 1 million classroom teachers, and the American Nurses Association, with 204,000 members, have been actively seeking recognition and engaging in collective bargaining, as have organizations of policemen, social workers, playground supervisors, university teaching assistants, and many other categories of State and local employees. A recent BLS survey of municipal public employee associations yielded 662 associations with about 265,000 members in 438 cities.<sup>1</sup> The Assembly of Government Employees, an association of State employee groups, claims that its affiliates represent more than 500,000 employees.<sup>2</sup> Recent contests between unions and associations leave no doubt that the latter groups are determined to stay. In a number of encounters in New York, California, and Oregon, among others, they decisively turned back union attempts to replace them.

### Factors underlying growth

What lies behind this unexpected thrust for public sector bargaining? It is a matter of profound interest to bewildered administrators and to the public at large. Unlike the depression in the 1930's and the subsequent breakthrough in union membership in mass production industries, no single factor can be offered to explain the recent growth.

Clearly, unions of government employees are not of recent origin, although organizing efforts by these unions have been markedly stepped up since 1960, perhaps because of sheer persistence or

a feeling that a turning point was near. Wage and fringe benefit gains by unions in private industry, widely reported in the press, found a receptive audience among government workers; at the same time, the traditional "security" of government employment looked less and less appealing in a progressively inflationary economy characterized by tight labor markets. This was particularly the case with the steadily growing number who entered government service in recent years. Long-standing local wage relationships between private and public employees were upset to the all too apparent disadvantage of the latter. The usual methods by which public servants received wage increases were too cumbersome and uncertain, pointing up that new approaches were called for. It should be added that sophisticated techniques ("human relations", and so forth) used by private employers to thwart union organization had made little headway among public managers.

The rise in militancy among public employees can also be traced in some measure to the growing acquiescence in such actions by our society generally. The example of the civil rights movement, students, war protesters, and so on left its mark on teachers, hospital attendants, firemen, and others. Conduct of perhaps questionable legality had become accepted and, above all, had achieved results where more conventional means had failed. In addition to material benefits, public employees, particularly professionals, were seeking a vehicle to participate in decisionmaking, from which they had previously been excluded.

A key turning point occurred in early 1962 with the issuance of President Kennedy's Executive Order 10988, which sanctioned union organization and had wide repercussions at non-Federal levels as well. After a string of union victories in several major cities, the momentum generated proved irresistible in jurisdictions in most parts of the country. Dramatic stoppages, such as the sanitation workers' walkout in Memphis, added impetus to union efforts. Legislative reapportionment, which entailed a shift from rural to urban representatives, may also have helped matters along in some situations.

In any case, the upsurge in union activity has brought in its wake a host of problems, some relating to interunion relationships. But its greatest impact has been on the public service and consequently on public policy.

**Table 3. Proportion of government employees organized**  
[Numbers in thousands]

Year	Government		Federal Government		State and local government	
	Total employment	Percent organized	Total employment	Percent organized	Total employment	Percent organized
1956	7,277	12.6	2,209	-----	5,069	-----
1960	8,353	12.8	2,270	-----	6,083	-----
1964	9,596	15.1	2,348	38.2	7,248	7.7
1966	10,792	15.9	2,564	41.8	8,227	7.8
1968	11,846	18.2	2,737	49.4	9,109	8.8

NOTE: Dashes indicate data not available.

## Effects on policy

As unions in the public sector have grown, they have increasingly come into competition with those in the private sector which in the past have been unopposed in their role of union spokesman in the community. Those who seek labor's endorsement must now turn to several power centers, while those in these centers are carefully delineating their roles. This new state of affairs was recognized at the AFL-CIO's 1969 convention, when the federation added two presidents of government unions to its Executive Council.<sup>3</sup>

The prospect of further gains has also intensified rivalries among unions and between unions and associations in organizing campaigns. This competition for new members is likely to lead to jurisdictional conflicts between unions whose membership encompasses white-collar and blue-collar workers and those made up of a particular craft. Such conflicts often underlie the question of "unit determination" since depending on the expected election outcome, one group may opt for a smaller (craft) as against a broader (installationwide) unit in one situation while taking the opposite position in another. Even within national unions, sudden membership successes have exacerbated long-smouldering conflicts, frequently resulting in changes in top officers. Such unsettled internal affairs are likely to have repercussions in dealings with departments and agencies, at times in displays of militancy and escalation of bargaining demands.

Work stoppages and the attendant issue of dispute settlement are probably the most widely discussed issues in assessing union impact on the public service.<sup>4</sup> Since this issue has been the subject of a number of extensive investigations, attention should now shift to how to develop a workable labor relations system to insure industrial peace.

Civil service commissions and the merit system are bound to come in for a drastic overhaul as the influence of unions expands. The functions of such commissions are likely to be confined to setting hiring standards, administering entrance and promotion examinations where stipulated, and protecting the merit system generally. Its customary role as the personnel arm of the government may be circumscribed if labor relations duties are assumed by new agencies specifically established for this purpose.

**Table 4. Estimated union membership of government employees by State and as a proportion of total government employment, 1968<sup>1</sup>**

[Numbers in thousands]

State	Estimated membership in government <sup>2</sup>	Government employment		Ranking by extent of organization	
		Total <sup>3</sup>	Percent organized	Government unions	All unions
Total.....	2,155	11,846	18.2		
Alabama.....	29	194	14.9	23	28
Alaska.....	5	32	15.6	19	10
Arizona.....	14	109	12.8	33	33
Arkansas.....	11	96	11.5	40	32
California.....	170	1,334	12.7	34	12
Colorado.....	21	166	12.7	35	24
Connecticut.....	36	140	25.7	5	23
Delaware.....	8	29	27.6	4	20
Florida.....	56	372	15.1	22	44
Georgia.....	42	269	15.6	20	43
Hawaii.....	6	69	8.8	48	19
Idaho.....	4	45	8.9	47	30
Illinois.....	128	599	21.4	8	8
Indiana.....	53	285	18.9	13	6
Iowa.....	19	163	11.7	39	25
Kansas.....	18	158	11.4	41	26
Kentucky.....	18	160	11.3	42	18
Louisiana.....	27	207	13.0	30	37
Maine.....	9	62	14.5	25	38
Maryland-D.C. <sup>4</sup>	91	589	15.4	21	26
Massachusetts.....	90	290	31.0	2	21
Michigan.....	117	484	24.2	7	5
Minnesota.....	54	216	25.0	6	15
Mississippi.....	12	127	9.4	46	47
Missouri.....	52	270	19.3	12	7
Montana.....	7	54	13.0	31	14
Nebraska.....	13	97	13.4	27	40
Nevada.....	5	34	14.7	14	17
New Hampshire.....	6	31	19.4	11	39
New Jersey.....	61	343	17.8	14	16
New Mexico.....	6	85	7.1	50	48
New York.....	309	1,116	27.7	3	4
North Carolina.....	24	227	10.6	43	50
North Dakota.....	6	46	13.0	32	34
Ohio.....	91	531	17.1	17	9
Oklahoma.....	30	180	16.7	18	41
Oregon.....	16	136	11.8	38	13
Pennsylvania.....	119	586	20.3	10	3
Rhode Island.....	17	52	32.9	1	22
South Carolina.....	13	134	9.7	44	49
South Dakota.....	6	50	12.0	37	45
Tennessee.....	27	217	12.4	36	29
Texas.....	85	636	13.4	28	26
Utah.....	14	99	14.1	26	35
Vermont.....	4	23	17.4	16	27
Virginia.....	38	283	13.4	29	42
Washington.....	41	230	17.8	15	2
West Virginia.....	9	95	9.5	45	1
Wisconsin.....	51	243	21.0	9	11
Wyoming.....	2	29	7.2	49	31
Membership not classifiable.....	65				

<sup>1</sup> A total of 59 unions represent employees in government, 57 unions in the Federal government, and 18 unions in State and local government.

<sup>2</sup> A total of 2,155,000 members in government included 1,351,000 in Federal and 804,000 in State and local; 65,000 members were outside the United States or not classifiable by State.

<sup>3</sup> Source, *Employment and Earnings, States and Areas, 1939-1968* (BLS Bulletin 1370-6, 1969).

<sup>4</sup> Federal employment in the Maryland and Virginia sectors of the Washington Standard Metropolitan Statistical Area is included in the data for the District of Columbia.

Personnel policies and their implementation, presently decreed unilaterally by agency heads, will increasingly become the subject matter of collective bargaining. The number of provisions included in agreements will grow in the years ahead as will the degree of detail describing specific working arrangements. In this context it is well to cite the clause in the Post Office agreement which reads: ". . . To the extent provisions of the Postal Manual which are in effect on the effective or renewal date of the agreement are in conflict with this agreement the provisions of this agreement will govern."<sup>5</sup>

The pressure of union wage demands will require a new look at present budget-making processes. It is clear that negotiated increases will have to be included in budget submittals lest agency heads find themselves unable to pay salaries which they have agreed to previously, or which will be agreed to during the budget year. This, of course, will also necessitate changes in existing ways of moving the budget through legislative bodies.

Public administration in the United States is presently in a period of transition. Basic philosophies will have to be reexamined and new ways of conducting the public's business will have to be

found. While the precise nature of the changes likely to occur cannot be predicted, it may be appropriate to keep the following statement from the 1967 National Governors' Conference report in mind: "Neither the pillars of city halls nor the foundations of the civil service crumbled when conditions of employment were negotiated instead of being fixed unilaterally."<sup>6</sup> □

—FOOTNOTES—

<sup>1</sup> Teachers were not included in the survey.

<sup>2</sup> This figure, however, may also include employees represented by city or county associations affiliated with State-wide organizations.

<sup>3</sup> It was reliably reported that a third president of a government union would have been added to the Council had the postal unions been able to agree on a single candidate.

<sup>4</sup> For the incidence of such strikes, see "Work Stoppages in Government, 1958-68" (BLS Report 348). On this subject also see Anne M. Ross, "Public Employee Unions and the Right to Strike," *Monthly Labor Review*, March 1969, pp. 14-18.

<sup>5</sup> U.S. Post Office agreement, February 9, 1968, p. 132, Article XXVI.

<sup>6</sup> See *Report of Task Force on State and Local Government Labor Relations* (Chicago, Ill., Public Personnel Association for the Executive Committee of the 1967 National Governors' Conference).

### Union effect on civil service

The major and most distinct effect of union activity [in the public sector] is a weakening of what might be called management-by-itself. The era of unilateralism, of unquestioned sovereignty, is about over. The age of bilateralism—consultation, negotiation, and bargaining—is already here. The "independent" civil service commission, responsible over the years for rule-making, for protection of career employees from arbitrary personnel changes, for adjudication of appeals from employees, still exists but is losing functions. Civil service commissions may not go out of business, but

more and more of their vital organs will be removed by the bargaining process until, whether officially in existence or not, they are husks of their former selves. This change is occurring not because employees are clearly dissatisfied with existing merit systems but because they feel that unions will get more for them—more pay, more benefits, more aggressive protection against possible arbitrary management actions.

—DAVID T. STANLEY,

"What are Unions Doing to Merit Systems?"  
*Public Personnel Review*, April 1970.

# Reflections on the future of bargaining in the public sector

Rapid growth in unionism,  
rising militancy  
head list of developments  
shaping employment  
relations in government

E. WIGHT BAKKE

THE APPROPRIATENESS of collective bargaining in the public sector of the sort and style developed in the private sector has been both asserted and denied thoughtfully, eloquently, and even passionately by knowledgeable partisans and presumably unbiased neutrals.

Today, as a result, it can be said that the basis for the right of public employees to negotiate collectively their terms of work through representatives of their own choosing has been thoroughly explored, and on the whole that right has been accepted although not by all public employers and even some public employees.

But we are a long way from being certain about how to handle the following problems in the public sector: The appropriate bargaining unit; the practicality of exclusive bargaining representation; compulsory union membership; the need for a Public Employee Relations Board to judge and enforce sanctions on either public employers or unions which refuse to bargain in good faith or commit unfair labor practices; the specification of what constitutes refusal to bargain and unfair labor practices; the determination of the scope of bargainable, in relation to mandated, issues; the integration of the use and applicability of political and economic power simultaneously; the relation of the bargaining timetable to budget submission dates; the kinds of impasse-breaking procedures that have a chance to succeed; the right of public employees to strike; the rights of the public to uninterrupted essential services; and the possibility of coupling coercive practices with professional ethics. All these have been subject to research and lively debate.

Based upon the consensus that is developing

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in some areas and the uncertainties remaining in others, it seems to me that seven trends can be identified in the evolution of collective bargaining in the public sector. In brief, here is what appears to lie ahead.

Unionization in the public sector is going to increase rapidly and extensively.

Union action in the foreseeable future is going to be militant.

The achievement of collective power is going to become the major objective of union leaders for a considerable period.

The combination of political and economic bargaining strategies and tactics will disturb for some time the pattern of collective bargaining between public management and public employee unions and associations.

The civil service concept of personnel policy and arrangements is going to suffer and be severely modified.

The public is going to pay a big price for what public employees gain.

Despite this, nothing is going to stop the introduction of and spread of collective bargaining in the public sector.

## Growth of unionism

The first prediction is probably the least controversial: Unionization in the public sector will increase rapidly and extensively.

All the conditions and circumstances that have made employees ready for collective bargaining in sectors where it has been established are present in the employment relations of a critical mass of public employees. The predisposition to organization and collective bargaining becomes manifest under the following conditions:

**COMMON STANDARDS.** When a group of individual employees work under, and must be provided with,

approximately the same pay, benefits, hours, and conditions of work, it is impossible for the individual employee, or employer for that matter, to make any substantial modification for individuals which departs from the common rule. This is not the result of a demand for equality or of bureaucratic rigidity, but of operating necessity. The implication is that standards and rules applicable to the whole group should be negotiated by the group rather than by the individual.

**ABSENCE OF INDIVIDUAL BARGAINING POWER.** Where an individual's unique or outstanding skill or individual worth to the employer is difficult for the employer to replace, that individual normally will rely on his own personal bargaining power. Where the group of employees have (or have the opportunity to demonstrate) few unique qualities, where within reasonable limits one is replaceable by others, this individual bargaining power does not exist to the same degree. The implication is that a lack of individual bargaining power can be compensated for by group bargaining power maintaining a solid and united front.

**SOCIAL PRODUCTS.** Where the goods or service produced are social products in the sense that no one employee's contribution produces the whole, it is difficult to disentangle for personal evaluation the value of any employees' contribution to the total process.

**IMPERSONALITY OF RELATIONS.** When the organization is large enough so that there are several strata of supervision between the employee and the decision-making employer, the problem is to find and get to the employer. The implication is that many persons cannot do this individually, but it can be done by collectively focusing their search and dealings in an organizational representative.

**EMPLOYERS AS AN ORGANIZED GROUP.** When the "employer" is in reality another group of organized employees (or agents) called "management," the implication is that an organized group is needed to deal with them. In the case of a school system, the school superintendent and the school board constitute an organized group of employees of the public.

**GROUP CONCERNS AND PERSONAL COMPLAINTS.** When an effort is made to present effectively the

human and professional interests shared by the whole group some person has to speak up. Lacking the support of the united front of an organized group, that person is likely to be labeled a troublemaker, an agitator, disloyal, and other terms scarcely designed to increase that person's job security. The implication is that organized group support for a group spokesman is essential to provide that spokesman with a regularized role that does not damage his personal security.

**PERFORMANCE RESULTS DEPENDENT ON MANAGEMENT.** When the product of the individuals in the group is greatly dependent on the policies, decisions, resource supplies, and so on, controlled by management, such common dependency can best be dealt with through collective representation designed to make managerial action advantageous to good performance results by the group.

**COMMUNITY OF INTEREST.** There is a basis for a community of interest among teachers and many other public employees. Identification arises through common skills and standards of performance, similarity in type and extent of training and in status in the eyes of the community, and the dependence of individual status on the status of the group as a whole. When there is this community of interest, the other bases for collective organized representation are reinforced. If that community of interest is exaggerated by the commonly experienced sense of being left behind by more privileged groups, or being as a group taken for granted, the predisposition is increased.

All of these factors apply to large numbers of public employees; not all of them, but enough to provide large numbers who are ready to listen to the appeal of the union organizer.

### **Increased militancy**

My second prediction, that unionism in the public sector in the foreseeable future is going to be militant, is based on the following observations:

1. In spite of the spread of Federal and State executive orders and laws nominally giving the right to organize and bargain and providing mechanisms for recognition, half of the States have not taken that step and three absolutely forbid it. Even where the right to bargain is recognized, many public managers have not



wholeheartedly accepted their responsibility to recognize those rights and engage in realistic collective bargaining leading to mutual consent. Even where they have done so, they are often babes in the woods when it comes to dealing with unions and sharing their decisionmaking power with union leaders supported by mass solidarity. Union leaders are also going to be inept for some time in adapting the only pattern of bargaining they are familiar with—that which has been developed in the private sector—to the peculiarities and necessities of industrial relations in the public sector. Ineptness and inexperience are certain to produce militant attitudes on both sides. Even as they gain experience, the confusion over how far public employers can go and still meet their governing obligations and their ultimate responsibilities to the public is going to produce puzzling uncertainties. Union leaders may perceive hesitation rooted in those uncertainties as stubbornness, arbitrariness, and buckpassing, that can only be met by a show of strength.

2. Added to these volatile factors is the situation of jurisdictional conflict between different unions, and between the traditional trade unions and so-called professional associations, particularly in the educational field where nearly one-half of the public employees are concentrated. The impact of this factor will be less if election procedures are quickly established. Even so, the competition for acceptance of one union or association over another is likely to cause the leaders of those organizations to demonstrate their militancy as proof to prospective members that they have most to gain by expressing their preference for the union that will really stand up to management. Associations like the National Education Association and civil service associations have already begun to adopt coercive tactics to prove themselves as they compete for members with the more traditional type of unions.

3. Direct action and coercive mass pressure, once thought to be a tactic used only by laboring people and communists, is becoming an acceptable approach to upper middle-class people who cannot realize their desires by the use of orthodox methods. Following the civil rights movement and welfare clients, taxpayers, landlords, students, teachers, and even priests are learning the utility of mass pressure as a way of getting action on demands that formerly got lost in bureaucratic buck-

passing and red tape. The social atmosphere is charged with militancy. If the revolt of women gains momentum, it will be another important factor. Over half of public servants are women.

4. The use of the strike by public servants is not going to be legitimized, but the strike or some other form of reduction or withdrawal of services having the same impact is going to be used extensively nevertheless. Declarations of union leaders equating collective bargaining with negotiations against a strike deadline make that clear. The record of successes by public employees who have resorted to strikes encourages confidence that, notwithstanding its illegality, it is a method that gets results.

I happen to believe that impasse procedures and mechanisms, once they are perfected and generally available, will reduce that development. The adoption by all states of a guarantee of the right to organize and provisions for employee participation through collective bargaining in setting the terms of public employment will reduce the chances of strikes. If we were to have public enforcement on both public employee unions and public employers of a duty to bargain in good faith on a mutually predetermined set of bargainable issues, there would be fewer occasions when public employees would have some justification for their perception that strikes are the only way to get action.

### Achieving collective power

The third prediction is that the dominant objective of union leaders for some time will be the achievement of collective power. That objective will compete successfully with their efforts to adapt the private sector pattern of union activities to the requirements of effective public administration, and to improve the professional status of their members. For example, union leaders' proposals for the determination of the appropriate unit for collective bargaining will be the one that is most strategically favorable to the immediate opportunity to organize rather than one that is geared to meeting the requirements of effective public administration. Groups of employees that appear ready for organization will be defended as an appropriate unit. The result may well be a fractionalization of bargaining units without reference to their community of interest

with other public employees or without reference to the obstacles raised to efficient administration of public services and equitable allocation of public resources.

The definition of the appropriate bargaining unit of employees with respect to whose terms of employment a government executive is expected to negotiate affects his administrative tasks in many ways: The number of employee organizations with which he must deal; the problem of giving equitable treatment to all the employees under his management; and the variety of negotiating results that must be integrated into a pattern of employment terms so that they make budgetary sense for the whole unit of government. It also affects the scope of bargainable issues, for some of the terms of employment must necessarily be the same for all employees in the political unit rather than peculiar to a particular group. It contributes to chances that negotiated terms for one group will result in a sense of injustice or inequity in another.

This is not to criticize unions for pushing for a definition of the appropriate unit that is most likely to facilitate organizing. I am only indicating that the immediate problem in accumulating power for public employee unions is to increase the number of groups they can get organized; that *this* power objective at this time, and for some time in the future, is going to be most immediately satisfied by the defining as an appropriate unit any group apparently amenable to organization, regardless of whether the resulting pattern of bargaining units makes sense in the effective administration of public industrial relations.

One strategy for the accumulation of union power is the development of group solidarity by means of substituting the common rule for the merit system of rewards. The merit system is intended to result in the professional advancement and transfer and the maintenance of professional standards among those public employees to which the term professional accurately applies. This expected result may be more fancy than fact, and the system may not be perceived by employees as worthy of preservation or even improvement so as to achieve the result. Public employment unions to date have shown very little inclination to modify their approach to solidarity via the common rule approach so that an improved merit system would have a chance of success.

Another example is rooted in the previous prediction that militant direct action including the strike will be a continuing instrument of power for public employee unions. Those who participate in such direct action are not going to improve their public image as dedicated professionals. Their experience and perception of the degree to which their public employers accord them that status now may be such that this result may appear to be no loss. Unions' efforts to improve professional status will have to be great to overcome the loss of status in the public mind by those who gain personally by withholding essential services from the public.

### Combined strategies

The fourth prediction was that the combination of political and economic bargaining strategies by unions in the public sector will produce a confusing pattern of collective bargaining interactions. It will be similar to a situation in private industry in which the union could go around management and make deals with the board of directors representing the stockholders, and union members had an important voice in electing the board of directors.

There will be an uneasy relationship between the administrative managers of public agencies and the elected legislative and executive officials to whom they are responsible and upon whom they depend for support in the pursuit of their professional interests. The labor movement, particularly in local and State situations, can and often does play a very important part in the electoral process. The working class vote can make the difference in elections. When the union, which is ostensibly bargaining with the management administrators, bypasses them in the hope of getting a better deal directly with city hall or the state house, a serious modification of collective bargaining as developed in the private sector occurs. The management administrators can find their efforts at reaching a settlement shortcircuited.

Collective bargaining as it is defined by practice in the private sector does not involve back-door deals with the board of directors, and directors are not elected either by the union members and their allies in the labor movement or by the ultimate consumers of their services or goods. Collective bargaining in the private sector assumes the existence of two relatively independent parties,

the management and workers represented by their union, trying to accommodate their differences and satisfy their respective interests through negotiation and administration of a contract.

### Civil service changes

The fifth prediction dealt with modification of the civil service concept. It may be adjustable to collective bargaining, but it could also be destroyed. The question of what will happen to the civil service system is a serious one. The divergence between ordering industrial relations by a civil service commission administering legislative mandates and by collective bargaining is clear. We are already seeing signs of incompatibility. The civil service approach assumes a uniform set of terms of employment for a large number of functional groups of classified employees. Selection, performance standards, salary grades, tenure, promotion and transfer arrangements, grievance procedures, and so on, now apply across the board to employees of numerous agencies. Under collective bargaining, each organized group bargains for and in the interest of its own members. It cannot be expected that any uniformity in terms will be achieved. Leap-frogging would become a serious possibility.

The civil service approach, however, has been unilaterally determined ultimately by legislative mandates and detailed commission regulations. It conflicts, therefore, with the principle represented by collective bargaining, involving authoritative participation by employees in determining the conditions of and payment for their work. There will be an uneasy effort to maintain both approaches for a time by eliminating mandated items from bargaining, and by making the bargaining units as comprehensive as possible.

### The price to pay

The sixth prediction is that the public will pay a big price for what the public employees gain through collective bargaining. This is not to say that the price is unjust or that the results are not worth it. But the public interest is going to play second fiddle for a time to serving partisan and sectoral interests.

The most obvious price is that tax burdens will increase. No one is going to be able to argue, as some economists have concerning unionism in

the private sector, that the unions only negotiate costly improvements in the economic welfare of their members, which workers would have received anyway due to increasing productivity and competition for workers in a free market. And the price for administering a system of industrial relations that includes collective bargaining is not likely to decrease government costs per unit of service unless unions promote some form of union-management cooperation which does not yet appear on the horizon.

Another cost is rooted in the predisposition to militancy. The interruption in the flow of public services and goods is going to be costly not only in public inconvenience, but in the cost of substitute services and goods. When the latter cannot be had, as will usually be the case, the disturbance to the normal operations of income-producing enterprise for individuals and organizations will add costs that are far from hidden.

Collective bargaining is coming into the public sector before it has developed an adequate concern for the public interest in the private sector, save as that interest is served by improvement in the conditions of life and work of union members directly and all workers indirectly.

My seventh prediction is an outgrowth of the others. Nothing is likely to be able to stop the spread of collective bargaining in the public sector. There can be no doubt that, should the foregoing predictions materialize, the task of devising a bargaining system which both protects and advances the interests of public employees and makes possible the effective administration of public services will be difficult. It will challenge the best efforts of the leaders of employee organizations, of public employers, of legislators, of judges, and of those who from time to time are called on to serve as mediators, factfinders, and arbitrators. But individually or collectively, the developments named cannot prevent the extension of employee organization in the public sector to the point where collective bargaining replaces unilateralism as the pattern of industrial relations.

It is always possible that in the light of the obvious and inescapable impact of industrial relations in public employment on the whole public that a pattern of collective bargaining in the public sector will be developed by public employers, public union leaders, and public employees which reveals a higher standard of public responsibility than that previously attained by any section of the labor movement. □

# Trends in homeownership and rental costs

Rapid advance  
in costs of shelter  
accounts for almost a third  
of the 1969 rise  
in the Consumer Price Index

ROBERT C. JOINER

THE COST of shelter has increased rapidly in recent years in sharp contrast to its slow rise in the 10 years between 1955 and 1965. The rate of advance in the shelter component of the Consumer Price Index reached a high of 8.5 percent in 1969.<sup>1</sup> This increase accounted for almost 30 percent of the 6.1-percent rise in the CPI for all items between December 1968 and December 1969.<sup>2</sup> (See table 1.)

The more rapid increase in shelter costs was primarily in homeownership, which includes the following subcomponents: Home purchase price, mortgage interest, property taxes, home insurance, and maintenance and repairs. Rental prices also increased more rapidly after 1965; however, the rate of increase was considerably below the rate for homeownership. (See chart 1.) A significant factor in the rise in the homeownership index in 1968 and 1969 was the influence of monetary policy on home purchase prices and mortgage interest costs.

This article discusses the behavior of factors affecting homeownership and rental costs during the 1955-69 period, with particular emphasis on the impact of construction costs, site values, and mortgage interest rates. Developments in the rental market and the housing outlook are also discussed.

## Homeownership

**HOME PURCHASE.** The two most important parts of the homeownership component of the CPI are home purchase and mortgage interest costs. Together they account for almost 9 percent of the CPI and over 60 percent of the homeownership index.<sup>3</sup> Although the home purchase and mortgage interest cost components of the CPI are not pub-

lished, it is possible to discuss some of the factors influencing their behavior.

The home purchase component of the CPI is based on transaction prices of privately owned single-family nonfarm homes sold under mortgages insured by FHA. (FHA data are used for the home purchase component because data on the prices of conventionally financed and VA-guaranteed homes are not available.) Prices of new and existing homes are weighted together to obtain an overall change. Transaction prices are converted to price per square foot and are reflected in the index by 3-month moving averages.

In 1955, the FHA estimate of the average value of homes was about the same—\$12,118 for new homes and \$12,047 for existing homes. Since then, the rates of increase in prices of new and existing homes have diverged: the average annual rate of increase for new homes was 5 percent and for existing homes 3 percent.<sup>4</sup>

Part of the increase in FHA values reflects changes in quality. New homes are larger, with more bathrooms and more bedrooms. (See table 2.) In addition, for many more homes the purchase price includes equipment such as ranges, refrigerators, dishwashers, and air conditioning. Changes in the characteristics of a house inhibit price comparisons from one period to the next because that part of the change in price due to changes in characteristics cannot be identified and separated from the price increase of a house.<sup>5</sup>

**CONSTRUCTION COSTS OF SINGLE-FAMILY HOMES.** Many variables must be considered in evaluating prices of houses, though their influence may not readily be known. Prices of construction materials, wages, and value of building sites are all important cost components. Construction costs, based on the Boeckh index of residential construction costs, increased at an average annual rate of 2.2 percent

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**Table 1. Annual rates of change in housing costs, 1955-69**

Item	Period (December to December)				
	1955-65	1965-66	1966-67	1967-68	1968-69
CPI, all items.....	1.9	3.3	3.1	4.7	6.1
Shelter.....	1.7	4.1	3.0	6.4	8.5
Rent.....	1.4	1.6	2.0	2.8	3.7
Homeownership.....	1.9	5.0	3.4	7.7	10.2

between 1955 and 1965 and 6.5 percent between 1965 and 1969.<sup>6</sup>

The distribution of construction cost has also changed during the past 20 years. In November 1969, the National Association of Home Builders published the following breakdown, contrasting construction costs of a "typical" single-family house in 1949 and 1969:<sup>7</sup>

Item	Percent of cost	
	1949	1969
Onsite labor.....	33	18
Materials.....	36	38
Land.....	11	21
Overhead and profit.....	15	13
Financing.....	5	10
Average price.....	\$9,780	\$20,534

A similar but not completely comparable study was published by the Labor Department in 1964.<sup>8</sup> This study reported that in 1962 onsite wages constituted 22 percent of the total construction cost of an average single-family house. Materials accounted for 48 percent, while overhead costs, sales expense, insurance, taxes, profit and other expenses made up the remaining 30 percent. Based on this information, it appears that the decline in ratio of structure to total cost occurred after 1962.

A salient feature of the changing cost pattern cited by the NAHB study was a reduction in the share of labor cost in total construction cost. Although wage rates have increased significantly, the relative cost share attributed to onsite labor has declined. The Labor Department index of union average hourly wage rates for building trades workers increased at an average annual rate of 4.3 percent between 1955 and 1965 and 6.2 percent between 1965 and 1969. Increased productivity as well as the shift from onsite to offsite labor must, of course, be considered in a balanced observation of wage increases and could account, at least in part, for the decline in the share of labor cost in the total cost of construction.

The availability of a sufficiently large force of

trained workers to meet anticipated needs is a serious concern among housing specialists. Although the jobless rate for workers in the construction industry as a whole reached a 16-year low of 5.1 percent in June 1969, the relative instability of the homebuilding industry in recent years has led many workers to seek jobs elsewhere. As building slowed in 1969, the jobless rate in the construction industry advanced to 6.0 percent in December.

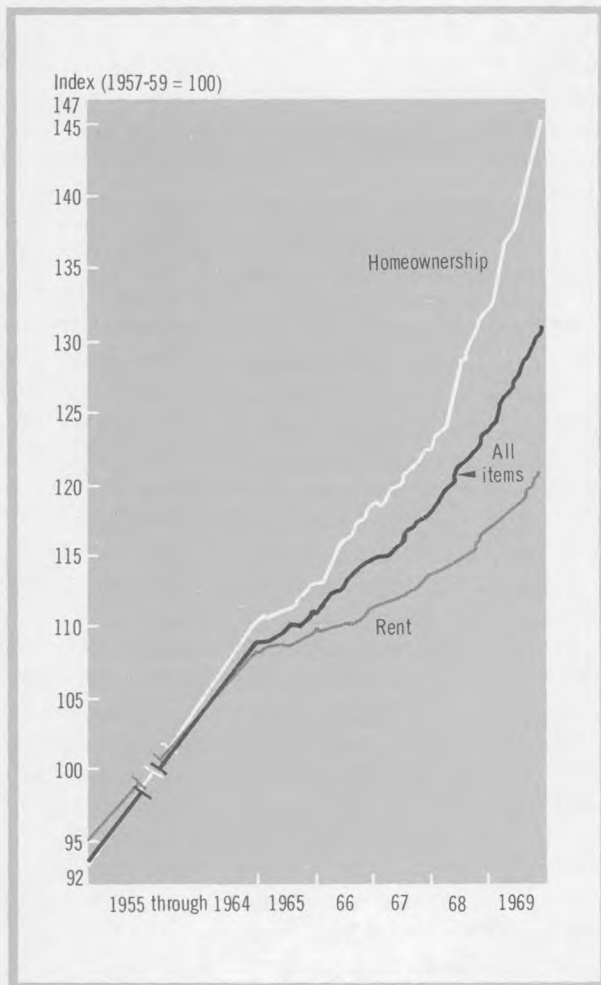
Fluctuating within a relatively narrow range, the Wholesale Price Index of all construction materials increased only 4.2 percent between December 1955 and December 1965. From December 1965 to December 1969, the index advanced over 15 percent, most of the rise occurring in 1968. The WPI construction materials index includes items used in commercial, industrial, and residential construction. This index is influenced greatly by changes in lumber prices: lumber and millwork together have a weight of about 25 percent in the WPI.

Prices of two principal materials used in residential construction—Douglas fir and softwood plywood—declined through most of the period from 1955 to 1965, except for a sharp rise in 1959. These prices turned upward in 1965 and rose markedly in 1968—29 percent for Douglas fir and 77 percent for softwood plywood. The increases resulted from a combination of factors such as expanded exports, severe snowstorms which retarded logging operations, and especially a rise in housing construction.

In 1969, as supplies improved and demand decreased—as evidenced by the downturn in housing starts, Douglas fir prices declined 14 percent and softwood plywood prices 39 percent. Prices of building paper and board also declined in 1969. Prices of concrete products continued their long-term steady rise. Metal products prices, such as plumbing fixtures and heating equipment, increased significantly in 1969. These prices reflect price trends of primary metals.

**SITE VALUE.** Increased land values in metropolitan areas contributed much to the rising cost of both private homes and apartments in recent years, as available land was virtually exhausted in some cities and suburbs. The steady suburbanization of American society was demonstrated by an estimated 28.2-percent increase in the population of suburban areas between 1960 and 1969, com-

**Chart 1. Consumer Price Index, all items, rent, and home ownership, December 1955 to December 1964 and monthly January 1965–December 1969**



pared with an 8.5-percent increase in the nonmetropolitan population and a 1.3-percent increase in the central cities.

The growing importance of land in metropolitan areas is amply demonstrated by FHA data showing that the estimated market value of new home sites, which averaged \$1,626 in 1955, increased to \$3,427 in 1965 and to \$4,277 in 1969. Site value of existing homes increased from \$1,707 in 1955 to \$3,219 in 1965 and to \$3,717 in 1969.

The ratio of site value to FHA-estimated total value affords perspective on the relative importance of land through the years. The ratio of site to total value of new homes advanced from an average of 13.4 percent in 1955 to 19.9 percent in 1965 and to 20.3 percent in 1969. The ratio for existing homes advanced from 14.2 percent in 1955 to 20.9 percent in 1965 and 21.7 percent in 1969.

The lot size of new FHA-insured homes decreased from an average of 10,709 square feet in 1965 to 9,299 in 1969. Such differences in size of lot limit FHA comparisons over time in the same manner as changes in structural characteristics mentioned above.

**MORTGAGE INTEREST.** The mortgage interest concept in the CPI represents the average amount of interest incurred in new mortgage contracts by wage earner and clerical consumer units during the 1960–61 survey year. It refers only to interest on mortgages currently contracted for and does not represent interest for commitments entered into during past periods. Changes in mortgage interest are based upon conventional, FHA, and VA mortgage interest rates. Rates on conventional loans are obtained from data collected by the Federal Home Loan Bank Board and represent all types of lending institutions, including savings and loan associations, life insurance companies, mutual savings banks, and commercial banks. The rates for conventional loans for mortgages on new and existing houses are then combined with FHA and VA rates, using weights which reflect the relative importance of each type of loan. Mortgage interest rates and home purchase prices<sup>9</sup> have a direct impact on the mortgage interest component of the CPI and have played a significant role in the CPI rise during the past few years.

Availability and cost of mortgage credit has been the most serious concern of builders, as well as home purchasers, in recent years. During 1969, average contract interest rates for conventional loans published by FHLBB were exceptionally high (almost 7½ percent for both new and existing homes). In 1965 these rates were 5.74 percent for new homes and 5.87 percent for existing homes. As a result, the Congress suspended the 6-percent ceiling on the contractual rate for FHA-insured and VA-guaranteed loans to make them more attractive to lenders. The FHA and VA rates were increased to 6¼ percent in May of 1968 and to 7.5 percent in January of 1969. An additional rise in FHA and VA rates to 8.5 percent effective January 5, 1970, was announced on December 30, 1969 (the FHA rates quoted exclude the 0.5 percent for insurance). Despite these increases, FHA-insured mortgages remained in a relatively poor competitive position, as lenders sought the much higher rate of return obtainable from conventional loans.

The money market is one of the factors affecting

the housing market. Interest rates are, of course, dependent on the level of funds available for lending, and this level depends in large part on the flow of funds into savings institutions. Activity in the housing field is particularly responsive to periods of decline and recovery at savings institutions. While most permanent financing comes from savings and loan associations and most construction financing comes from commercial banks, additional funds come from mutual savings banks, life insurance companies, pension funds and other sources.

A substantial decline in the net inflow of money to savings institutions in 1966 was accompanied by a 12.4-percent increase in the index of mortgage interest rates in the CPI. A strong recovery in savings in 1967, at least up to the fourth quarter, corresponded to only a slight decrease in the index of mortgage interest rates (0.9 percent). As savings dropped again in 1968 and 1969, mortgage interest rates again advanced, with a rise of 11.7 percent in 1968 and an additional 11.4 percent in 1969.

Changes in interest rates and the supply of mortgage money have influenced the volume of residential construction. Following a peak year in 1963, residential construction began a decline which lasted through 1966, when the volume reached its lowest level in 20 years. The recovery that ensued in 1967 and expanded in 1968 was foreshortened in 1969, principally by a tight money market. However, Government-aided housing,

unlike the rest of the industry, did not register a decline in starts in 1969, partly because of the number of low-income units begun.

### The rental market

The rent index is a measure of rents actually paid by consumers and is based on changes in the contract rent charged for samples of rental dwellings in the CPI.<sup>10</sup> The rent sample is designed to provide a measure of price change and not a measure of rent level. It is intended to measure rent changes over time for the same dwelling units. Where values are available for making the adjustments, price differences resulting from changes in the facilities and services included in contract rent between two consecutive pricings are excluded.

Although during the entire period analyzed, rent increased at a slower rate than home ownership costs, an acceleration developed in 1966. When questioned by BLS pricing agents about the reasons for rent changes in recent years, tenants and landlords most often cited increased operating costs, including property taxes, labor, maintenance, repairs, and the addition of new equipment such as air conditioning. Rents are often raised to cover anticipated as well as past increases in operating costs.

Another important factor in the faster rise in prices of rental units has been the increase in demand for apartments. The growing cost differential after 1966 between owning and renting forced many prospective buyers to defer purchase and led builders to concentrate increasingly on satisfying new demand for apartments. Although a steady trend toward home ownership and single-family homes has long characterized American life, the new emphasis on the rental market after 1966 so altered the residential construction pattern that growth in the number of apartments exceeded the growth of single-family home construction. Single-family homes constituted over 81 percent of total private, nonfarm housing starts in 1959 but dropped to 65 percent in 1965 and to 55 percent in 1969. More apartment units were started in 1969 than in any previous year. Plummeting consumer hopes for buying a home were illustrated by a decline in the Commerce Department's index of expected house purchases from 105.7 in January 1968 to 94.1 in October 1969.

Cost factors such as labor, materials, interest

**Table 2. Characteristics of FHA-insured homes, selected years**

Characteristic	1955	1965	1969
Average calculated-area (square feet).....	1,049	1,228	.....
Average number of rooms.....	5.1	5.7	5.9
Average number of bedrooms.....	2.9	3.2	3.2
	Percent		
Number of stories:			
One.....		84.2	85.6
Two or more.....		10.7	9.4
Split level.....		5.1	5.0
Full basement.....		20.8	15.2
Building type:			
Frame.....		89.2	75.3
Masonry.....		10.5	24.3
Combination.....		0.3	0.4
Bathrooms:			
1.....		34.2	28.1
1½ or 2.....		60.3	65.5
More than 2.....		5.5	6.4
Garage facility:			
Garage.....	69.8	55.8	56.7
Carport.....		26.5	28.7
No garage.....		17.7	14.6

NOTE: Dashes indicate data not available.

SOURCE: FHA Trends of Home Mortgage Characteristics (Department of Housing and Urban Development).

rates, and building sites increased the construction cost of new rental units much as they affected construction of single-family homes, though per unit costs for apartments are, of course, lower. Further, big lenders frequently consider apartments better investments because of the potentially greater return.

The physical design of apartments, like that of homes, changed to meet new market requirements. In response to renters' demands for more space, some builders shifted from construction of efficiencies and one-bedroom apartments to two-bedroom units. In addition, builders concentrated more on construction of units in smaller apartment buildings containing 5 to 9 units or large buildings containing 50 units or more, as opposed to the medium-sized structures favored in past years.

In addition to increases in the volume of apartment construction, the new demand for apartments was illustrated by a steady decline in the number of units available for rent in relation to the total supply. The average rental vacancy rate declined from 7.7 in the fourth quarter of 1965 to 4.7 in the fourth quarter of 1969. Concessions such as a free-rent period and allowances for moving costs, once employed to attract new tenants, were no longer needed. A Census-HUD survey released in January 1970 reported that new apartments are nearly all rented within 9 months of completion.

Although the new demand for apartments by no means signaled the end of the long-term trend toward homeownership, it did reflect several changes in the makeup of the American population. Perhaps the principal demographic change favoring the rental market was the shift in the age distribution.

The Census Bureau has estimated that the age groups in metropolitan areas that increased most in number between 1960 and 1969 were young adults and the elderly. There was a 49.7-percent increase in the number of Americans aged 20 to 24, and a 22.5-percent increase in those age 65 and over. Because of financial considerations and reasons of convenience, rental holds special appeal for these age groups.

### The housing outlook

Over 14 million nonfarm housing units were started in the 1960's; however, this constituted 6 percent less than the number started in the

previous decade. Secretary of Housing and Urban Development George Romney stated on March 11, 1970, that "Meeting the housing goals and needs will require an increased annual investment of at least \$30 billion in housing, and ways must be found to secure this from private sources."

Availability of mortgage money is considered by many experts to be the greatest problem in the development of a housing boom. Means of stimulating the growth of savings and loans institutions are of particular interest. For example, an expanded, flexible role for the Federal Home Loan Bank System may make it more responsive to credit demand. A new data collection system introduced in 1969 will provide much needed information on the flow of mortgage money. A goal of the 1968 Housing Act and the creation of the Government National Mortgage Association was the channeling of new sources of mortgage money, such as pension and trust funds, to the housing industry. Better flow of mortgage money across regional areas could be beneficial, since interest rates vary a great deal according to geographic location.

The need for low-income housing, particularly in the inner cities, dominated the housing picture at the end of the 1960's. The Housing and Urban Development Act of 1968 reaffirmed the national goal of the 1949 Housing Act—"A decent home and suitable living environment for every American family"—and called for the construction or rehabilitation of 26 million housing units within the next decade, including 6 million for low and moderate income families. Various forms of government incentives were suggested to stimulate builders' interest in such construction. The 1969 Housing Act extended all major housing programs for a year and added several new provisions, including a new subsidy to limit the rent paid by a public housing tenant to 25 percent of his or her income. Also included were liberalized provisions for acceptance of poor families in low-rent housing.

In addition, demand for less costly housing is ideally illustrated by the increase in manufacturers' shipments of mobile homes—at an annual rate of 6½ percent between 1956 and 1965 and 16 percent between 1965 and 1969.<sup>11</sup> Its growing importance was recognized by a new FHA program for mobile home mortgage insurance.

Finally, there is growing demand for develop-



ment of new methods of production. Toward this end, HUD's Operation Breakthrough was created, and by the end of 1969 plans were underway to build prototype housing models in 10 States. The objectives of this program include improved methods of management, financing, land planning and development, and housing systems technology.

Despite the upward pressure on rents at the

end of 1969, there was no sign of change in the trend toward rental unit demand and construction as opposed to home purchase. The demographic factors favoring rental can be expected to continue, but, most important, the more rapidly ascending costs of purchase will simply preclude homeownership for many in the immediate future. □

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—FOOTNOTES—

<sup>1</sup> The empirical results in this study are based primarily on the "shelter," "rent," and "homeownership" components of the Consumer Price Index. Implications from these results are, therefore, to be made subject to any definitional constraints imposed by these concepts.

<sup>2</sup> An historical summary of the scope and methods used to compile the Consumer Price Index since its inception and an explanation of present techniques applied can be found in *The Consumer Price Index: History and Techniques* (BLS Bulletin 1517, 1966).

<sup>3</sup> Relative importance as of December 1969.

<sup>4</sup> Nationwide FHA characteristics are published quarterly by the Department of Housing and Urban Development in *FHA Trends of Home Mortgage Characteristics*.

<sup>5</sup> Use of a regression technique for making adjustments for changes in the characteristics of houses sold would require both a broader sample of houses sold and more detail on characteristics than is currently available.

<sup>6</sup> The Boeckh Index is published monthly by the Busi-

ness and Defense Services Administration, U.S. Department of Commerce, in *Construction Review*.

<sup>7</sup> See the National Association of Home Builders' *Economic News Notes*, November 1969, p. 3. For a discussion of the implications of the NAHB analysis, see Nat Goldfinger, "Labor costs and the rise in housing prices," *Monthly Labor Review*, May 1970, pp. 60-61.

<sup>8</sup> See *Labor and Material Requirements for Private One-Family House Construction* (BLS Bulletin 1404, 1964).

<sup>9</sup> Increased house prices imply larger mortgage and interest payments.

<sup>10</sup> Rent quotations are obtained by BLS agents, who contact the landlord or tenant of each unit semiannually. Units in 1 of 3 subsamples in each of the 5 largest cities are priced bimonthly. Similarly, units in 1 of 2 subsamples in each of the other cities are priced quarterly.

<sup>11</sup> Based on data compiled by the Mobile Home Manufacturers Association.

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### Union membership among construction workers

Total union membership as a percentage of all construction workers on payrolls in contract construction increased from 68.3 percent in 1956 to 75.0 percent in 1966. This is in contrast to the general trend of unionism in the rest of the economy, where union strength has actually declined in relative terms. . . .

In general, it would seem that, judging by wage rates and fringe benefits, the degree of unionization is highly correlated to the size of construction projects. In other words, union

strength declines as the type of construction becomes lighter, from heavy construction (highest degree of unionization) to industrial and commercial work (high degree) to public and private building (relatively high) to housing developments (moderate) to home building (relatively low).

—PETER J. CASSIMATIS,  
*Economics of the Construction Industry*,  
(New York, National Industrial  
Conference Board, 1969).

# Trends in output per man-hour in the sugar industry

Average gain of 4.4 percent a year in output per man-hour marks above-average increase in productivity since World War II

JOHN W. FERRIS, JR., AND HAZEN GALE

OVER THE last two decades, output per man-hour in the sugar industry<sup>1</sup> went up at an average rate of about 4½ percent a year.<sup>2</sup> Output per man-hour more than doubled between 1947 and 1968, rising more than in manufacturing, where the rate of increase over the corresponding period was little more than 3 percent a year.<sup>3</sup> The above-average increase in sugar productivity reflects an average increase in output of 3 percent a year and an average decrease in man-hours of nearly 1½ percent a year.

The average gain of 4.4 percent a year was produced by an increase in almost every year. The only noteworthy decline occurred in 1951, when industry output fell as an after effect of the unusually large increase in output in 1950. That increase was caused by consumer stockpiling during the early stages of the Korean conflict in anticipation of a sugar rationing that never materialized.

Sugar productivity grew slightly faster in the second part of the 22-year period than in the first. The average rate of gain rose from 4.1 percent between 1947 and 1957 to 4.6 percent between 1957 and 1968. The entrance of Hawaii as a State was one factor in the increase. Hawaiian production and man-hours were included in the sugar index starting in 1958.<sup>4</sup> At that time, Hawaii accounted for about 13.1 percent of U.S. sugar employment. Even more important was the elimination of Cuba as the major supplier of sugar to the United States.

The United States has never produced enough sugar to meet its needs, and consequently imports

a large proportion of its total sugar supply. Congress regulates sugar imports by establishing quotas for each supplier country. These quotas protect U.S. growers, since the prices established to encourage domestic production exceed the world market price. Before 1961, Cuba supplied over one-third of the sugar consumed in the United States. When the Cuban quota was eliminated in 1961, it was reallocated to Hawaii, to other domestic cane and beet sugar production areas, and to other foreign countries—mainly to the Philippines, the Dominican Republic, Brazil, and Mexico. The reallocation spurred domestic production of beet and cane sugar. By 1968, domestic sugar accounted for about 53 percent of the sugar consumed in the United States, whereas up to 1961 the domestic share was about 45 percent.

## Output

Output growth contributed to the above-average rate of productivity increase. The value of the industry's shipments, adjusted for price changes, went up 50 percent over the period. During the first half of the period, output increased at about the same rate as population. (Population growth accounts for most of the increase in demand for sugar, as per capita consumption has not changed significantly since 1947.) After 1957, output increased much faster than consumption, because of a sharp increase in Hawaiian production and the shift from foreign to domestic suppliers.

During the postwar period there was also a shift in the composition of the industry's output. Sugar packaged for home consumption became relatively less important; bulk and liquid sugar became relatively more so. The major reason behind the shift to bulk sugar was the rise in commercially prepared foods. In addition, a

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steady increase in soft drink consumption added to the demand for liquid sugar, despite dramatic growth in the use of noncaloric sweeteners.

**Employment**

Employment and man-hours in the sugar industry each declined about 25 percent between 1947 and 1968, reflecting a greater rate of increase in productivity than in output. Industry employment dropped from 35,000 in 1947 to 28,500 in 1958. Adding Hawaiian employment revised the 1958 total to 32,800. Since then employment has remained relatively stable.

Employment in this industry is concentrated in States and cities where raw materials are available. Since most domestic cane is grown in Florida, Louisiana, and Hawaii, all the raw cane sugar mills are located in these states. Cane sugar refineries are located in ports that can accommodate ocean-going ships, since imports are the main raw material. As a result, New York, Philadelphia, New Orleans, and San Francisco have long been the most important areas for the refining industry. Beet sugar factories are located in areas where sugar beets are grown. California and Colorado

**Chart 1. Output, all employee man-hours, and output per all employee man-hour in the sugar industry, 1947-68**



**Table 1. Sugar industry: output per man-hour, unit labor requirements, and related data, all employees, 1947-68**

[Indexes (1957-59=100)]

Year	Output		Unit labor requirements in terms of—		Related data		
	Per employee	Per employee man-hour	Em- ployees	Em- ployee man-hour	Output	Em- ployees	Em- ployee man-hours
1947	67.9	65.7	147.3	152.3	84.0	123.7	127.9
1948	(1)	(1)	(1)	(1)	76.5	(1)	(1)
1949	72.5	72.4	138.0	138.1	81.9	113.0	113.1
1950	76.3	77.7	131.1	128.8	92.1	120.7	118.6
1951	69.2	72.5	144.4	137.9	79.9	115.4	110.2
1952	77.3	78.2	129.3	127.9	85.0	109.9	108.7
1953	80.7	81.0	124.0	123.4	90.6	112.3	111.8
1954	87.0	89.1	115.0	112.2	91.6	105.3	102.8
1955	89.6	92.3	111.6	108.4	90.8	101.3	98.4
1956	97.8	97.1	102.2	102.9	95.2	97.3	98.0
1957	95.4	95.9	104.8	104.2	94.3	98.8	98.3
1958	100.4	99.0	99.6	101.0	100.1	99.7	101.1
1959	103.9	104.8	96.2	95.5	105.5	101.5	100.7
1960	110.9	110.6	90.1	90.4	108.6	97.9	98.2
1961	118.1	118.6	84.6	84.3	115.3	97.6	97.2
1962	129.7	130.3	77.1	76.8	120.5	92.9	92.5
1963	131.0	132.0	76.3	75.8	127.2	97.1	96.4
1964	139.9	139.9	71.5	71.5	138.5	99.0	99.0
1965	139.7	144.8	71.6	69.0	133.4	95.5	92.1
1966	143.7	149.8	69.6	66.8	134.2	93.4	89.6
1967	151.2	152.7	66.2	65.5	136.5	90.3	89.4
1968 <sup>2</sup>	147.3	147.3	67.9	67.9	141.1	95.8	95.8
Average annual rates of change							
1947-68	4.3	4.4	-4.1	-4.2	3.0	-1.3	-1.3
1957-68	4.4	4.6	-4.2	-4.4	3.8	-0.6	-0.8

<sup>1</sup> Not available.  
<sup>2</sup> Preliminary.

SOURCE: Output based on data from the U.S. Department of Agriculture and the Bureau of the Census, U.S. Department of Commerce. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

accounted for more than two-fifths of total employment in that industry.

**Technological change**

An accumulation of minor technological improvements—primarily in materials handling—contributed to the decline in man-hours. One of these innovations was an improvement in the handling of raw sugar. Whereas sugar had formerly been shipped in 50- and 100-pound bags, which had to be opened and dumped into the receiving warehouse by hand, raw sugar is now shipped in bulk and is taken from dock to warehouse by means of power shovels, scoops, and conveyers. Because of the introduction of this mass handling equipment, the man-hours required have been drastically reduced in both the unloading<sup>5</sup> and warehousing operations.

A related change has occurred in handling refined sugar. Machines now place the packaged sugar on pallets which go by conveyers to elevators. Forklift trucks then transfer the pallets to shipping or storage areas. Refined sugar also is being shipped in bulk to a growing extent, either in granule or liquid form. Improvements in bulk sugar handling, where trucks and railroad cars are filled directly from the refining process using gravity flow and metered pumps, have also resulted in large reductions in labor requirements.

There have been technological improvements in the beet sugar component of the industry too. A continuous diffuser, which separates raw sugar juice from beet pulp, eliminates as many as 15 men per shift. In addition, automatic control equipment has been introduced for many operations. A further innovation permits a longer season—storing a portion of the “thick juice,” the sugar juice from which most of the moisture has been evaporated, and processing it into sugar long after the slicing season is over.

### Capital expenditures

The above-average rate of productivity increase in the sugar industry was associated with large increases in capital expenditures. Between 1947 and 1967, capital expenditures per employee rose at an average annual rate of 8.9 percent, nearly double the rate for all manufacturing. According to the *Census of Manufactures*, the 1967 investment per employee in new plant and equipment was \$2,600, about 2½ times that of manufacturing as a whole. Although large capital expenditures are a characteristic of the sugar industry, the faster rate of growth indicates that plant expansion and modernization have been relatively important. The capacity increases have been accomplished largely through expansion of

existing facilities, since the number of establishments declined.

There was a wide disparity in the pattern of expenditures for the two subperiods covered by this study. The sluggish rate of output growth between 1947 and 1957 was associated with a similarly slow rate of increase in capital expenditures per employee (2.0 percent annually).

The 1957 to 1967 period told a completely different story as the rate of advance in expenditures rose to 9.7 percent. Increases were most pronounced between 1957 and 1964, when expenditures went up 14.7 percent a year. Capital expenditures in the beet sugar component of the industry accounted for much of this growth. At least part of it was related to expansion of capacity to handle the increased production after quotas were reallocated. □

### —FOOTNOTES—

<sup>1</sup> The sugar industry includes raw cane sugar, cane sugar refining (including imported raw sugar), and beet sugar, which is manufactured from sugar beets in one continuous process. In 1967, the industry's 160 establishments employed 30,000 workers.

<sup>2</sup> Average annual rates in this report are based on the linear least squares trend line fitted to the logarithms of the index numbers.

<sup>3</sup> This index supersedes the index previously published for the beet sugar segment of the industry. An explanation of the methods used to derive the index can be obtained by writing the Division of Industry Productivity Studies. Extensions of the index will appear hereafter in the annual BLS Bulletin, *Indexes of Output Per Man-Hour, Selected Industries*.

<sup>4</sup> Hawaiian production and man-hours were linked to continental production and man-hours in 1958; consequently, there is no discontinuity in the total index.

<sup>5</sup> Not all unloading operations are performed by sugar industry personnel. Certain companies buy this service on contract.

More than 5 million  
production workers won wage raises;  
an additional 6 million  
received deferred or  
cost-of-living increases

JOHN KINYON

# Wage developments in manufacturing, 1969

IN 1969, WORKERS IN MANUFACTURING industries received wage increases higher than ever before recorded. The 6.1-percent rise in the Consumer Price Index and a tight labor market (reflected in the 3.5-percent unemployment rate for the year) caused high wage demands. The median adjustment for wage decisions during 1969 was 6.0 percent, up from 5.7 percent a year earlier. The median adjustment actually going into effect, including deferred and cost-of-living escalator increases plus current wage decisions, was 5.0 percent, the same as in 1968. (See tables 1 and 2.)

Nearly 9 out of 10 workers in establishments which usually make general wage rate changes received these adjustments in 1969. About 5.4 million workers were affected by decisions to raise pay; the balance of the 11.6 million employed where wages were raised received deferred and/or escalator increases.

## Wage decisions

As noted, the median adjustment in 1969 wage decisions was 6.0 percent, or 15 cents an hour, as shown in table 3. The median increase, which excludes decisions not to change wages, was 6.2 percent, or 16.9 cents.

Considering only union establishments, the median adjustment and median increase were the same—6.9 percent—since nearly all workers covered by collective bargaining negotiations received wage raises. This compares with a 6.5-percent median increase and a 6.4-percent adjustment in 1968. In a year of relatively light collective bargaining activity, key settlements were reached in the oil refining, shipbuilding, women's and children's apparel (under wage reopeners), and

the men's shirts, pajamas, outerwear, and pants industries.

The median adjustment for nonunion establishments was 5.1 percent, or 12.5 cents, and the median increase was 6.0 percent, or 14 cents. The largest block of nonunion workers to receive wage increases was in the southern textile industry. This increase, which averaged between 6 and 7 percent, was the eighth in the last 7 years.

## Effective wage changes

The median adjustment going into effect during 1969 was 5.0 percent, or 15 cents, compared with 5.0 percent and 13.7 cents in 1968 (table 4). The

**Table 1. Factory production workers affected by wage decisions and median changes, 1965-69**

Item	1965	1966	1967	1968	1969
All workers in establishments making decisions (in thousands).....	6,745	5,889	6,748	7,292	6,193
Percent of workers receiving increases:					
All manufacturing.....	86.1	87.9	90.1	94.0	87.4
All union.....	92.5	96.1	98.4	99.3	98.9
Major union.....	94.2	99.3	99.3	99.8	99.8
Nonunion.....	75.3	77.8	80.8	87.0	75.8
	Percent <sup>1</sup>				
Median adjustment:					
All manufacturing.....	3.3	4.0	5.0	5.7	6.0
All union.....	3.4	4.0	5.5	6.4	6.9
Major union.....	4.0	4.2	6.4	6.9	7.0
Nonunion.....	3.2	3.7	4.4	5.0	5.1
Median increase:					
All manufacturing.....	3.7	4.2	5.3	6.0	6.2
All union.....	3.6	4.1	5.5	6.5	6.9
Major union.....	4.1	4.2	6.4	6.9	7.0
Nonunion.....	4.0	4.4	5.0	5.0	6.0
	Cents per hour				
Median adjustment:					
All manufacturing.....	8.0	9.7	11.7	15.0	15.0
All union.....	9.0	10.0	15.4	20.0	19.6
Major union.....	10.0	10.2	17.5	23.5	21.4
Nonunion.....	6.3	8.0	10.0	11.6	12.5
Median increase:					
All manufacturing.....	8.8	10.0	12.4	15.5	16.9
All union.....	9.5	10.0	15.4	20.0	20.0
Major union.....	10.0	10.3	18.0	23.5	21.5
Nonunion.....	8.0	9.3	10.6	12.3	14.0

<sup>1</sup> Percent of average hourly earnings, excluding overtime.

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1969 increases were moderated by the relatively large number of deferred increases in unionized establishments, since deferred adjustments tend to be smaller than immediate changes agreed upon in collective bargaining. Median adjustments in union and nonunion establishments separately were 5.0 and 5.1 percent, respectively.

Deferred increases affected workers in the automobile, steel, and farm and construction equipment industries. The 650,000 workers in the automobile industry received 3 percent, or a range of 10 to 17 cents; and 400,000 workers in the steel industry received 12 to 21.3 cents. Farm and construction equipment workers benefited from a 3-percent increase.

### Cost-of-living provisions

The rise in the Consumer Price Index directly affected wages of 2.5 million manufacturing industry workers covered by cost-of-living escalator provisions, about the same number as in 1968. This compares with 2.2 million in 1967, 2.1 million in 1966, and 1.7 to 1.9 million in 1962-65.

**Table 2. Factory production workers in establishments where wage changes were effective and median changes, 1965-69**

Item	1965	1966	1967	1968	1969
All workers (in thousands).....	11,422	12,016	12,493	13,028	13,035
Percent in establishments where general changes were effective:					
All manufacturing.....	84.6	80.2	88.1	92.2	88.9
All union.....	87.3	80.9	90.6	93.7	93.2
Major union.....	89.8	75.5	84.5	94.0	94.0
Nonunion.....	75.4	77.8	81.1	87.6	75.5
	Percent †				
Median adjustment:					
All manufacturing.....	3.0	3.3	4.0	5.0	5.0
All union.....	2.9	3.2	4.0	5.0	5.0
Major union.....	3.4	3.3	4.0	5.2	5.0
Nonunion.....	3.2	3.9	4.6	5.0	5.1
Median increase:					
All manufacturing.....	3.3	3.9	4.3	5.1	5.1
All union.....	3.2	3.8	3.9	5.1	5.0
Major union.....	3.7	4.2	4.4	5.4	5.0
Nonunion.....	4.0	4.5	4.8	5.0	6.0
	Cents per hour				
Median adjustment:					
All manufacturing.....	7.5	8.5	10.0	13.7	15.0
All union.....	8.0	8.7	10.0	14.7	15.0
Major union.....	10.0	9.9	12.0	18.2	17.5
Nonunion.....	6.3	8.0	10.0	11.7	12.6
Median increase:					
All manufacturing.....	8.4	10.0	10.6	14.6	15.3
All union.....	8.7	10.0	10.8	15.0	16.0
Major union.....	10.0	12.0	12.0	19.0	18.0
Nonunion.....	8.0	9.6	10.3	12.3	14.3

† Percent of average hourly earnings, excluding overtime.

### Scope of study

This article discusses wage developments in union and nonunion establishments in the manufacturing sector. (A more detailed report on this subject appears in the Bureau's *Current Wage Developments*, May 1, 1970.) An article on 1969 wage developments in major union situations in both manufacturing and nonmanufacturing appeared in the June 1970 *Monthly Labor Review*, pp. 45-50.

This summary covers only the 13,035 million union and nonunion production and related workers employed by manufacturing firms that make general wage changes. It excludes 1.6 million employees of firms that change wages only on an individual worker basis, as well as 77,000 workers in establishments in which action on wages in 1969 was not known. The information presented is derived from the summaries of collective bargaining settlements listed in *Current Wage Developments* and from a quarterly survey of union and nonunion establishments.

Tables on wage decisions are limited to wage increases decided on during 1969 and, for unionized employees, scheduled to become effective within the first 12 months of the new agreement or, for nonunion workers, within 12 months after the management decision. Except for guaranteed minimum increases, automatic cost-of-living escalator wage changes resulting from movements in price indexes are excluded, as are deferred wage changes resulting from earlier decisions. It has been assumed that nearly all nonunion establishments make annual wage decisions, since in the absence of reports of wage changes there is no objective way of determining if a change in wages was considered. Instances where nonunion employees received deferred increases constitute the primary exception. Tables on effective changes cover all wage changes effective during 1969, regardless of whether the changes resulted from a current decision, an earlier decision, cost-of-living adjustments, or any combination of the three types.

Averages are worker-weighted and are computed from frequency distributions in which all workers affected by an action are entered at the average for the group.

Union establishments are those in which a majority of the production and related workers are covered by union agreements. Major union situations are those affecting 1,000 workers or more.

Measures of average wage adjustments include employees in establishments in which wage rates were not changed or were reduced, as well as increased, while measures of average wage increases are limited to employees in establishments in which wage rates were increased.

Table 3. Wage decisions reached in 1969, by type of establishment

Type and amount of wage-rate action	Production and related workers					
	All		Union		Nonunion	
	Number (in thousands)	Percent	Number (in thousands)	Percent	Number (in thousands)	Percent
All wage actions.....	6,193	100.0	3,112	100.0	3,081	100.0
No wage changes.....	782	12.6	36	1.1	746	24.2
Decreases in wages.....						
Increases in wages.....	5,411	87.4	3,077	98.9	2,335	75.8
IN CENTS PER HOUR						
Under 5.....	88	1.4	11	.4	77	2.5
5 and under 7.....	101	1.6	34	1.1	68	2.2
7 and under 9.....	132	2.1	69	2.2	63	2.1
9 and under 11.....	452	7.3	134	4.3	318	10.3
11 and under 13.....	467	7.5	163	5.2	304	9.9
13 and under 15.....	679	11.0	249	8.0	431	14.0
15 and under 17.....	739	11.9	413	13.3	326	10.6
17 and under 19.....	491	7.9	347	11.2	144	4.7
19 and under 21.....	505	8.2	269	8.7	235	7.6
21 and under 23.....	412	6.7	303	9.7	109	3.5
23 and under 25.....	224	3.6	193	6.2	31	1.0
25 and under 27.....	251	4.1	216	6.9	36	1.2
27 and over.....	747	12.1	601	19.3	146	4.7
Not specified or not computed <sup>1</sup> .....	123	2.0	76	2.5	47	1.5
IN PERCENT <sup>2</sup>						
Under 1.....	32	.5			32	1.0
1 and under 2.....	42	.7	17	.5	26	.8
2 and under 3.....	163	2.6	75	2.4	88	2.8
3 and under 4.....	289	4.7	119	3.8	170	5.5
4 and under 5.....	539	8.7	238	7.7	301	9.8
5 and under 6.....	920	14.9	499	16.0	422	13.7
6 and under 7.....	1,337	21.6	584	18.8	753	24.4
7 and under 8.....	671	10.8	495	15.9	176	5.7
8 and under 9.....	349	5.6	262	8.4	87	2.8
9 and under 10.....	286	4.6	182	5.8	104	3.4
10 and over.....	660	10.7	530	17.0	130	4.2
Not specified or not computed <sup>1</sup> .....	122	2.0	75	2.4	47	1.5
Median adjustment:						
Percent.....	6.0		6.9		5.1	
Cents.....	15.0		19.6		12.5	
Median increase:						
Percent.....	6.2		6.9		6.0	
Cents.....	16.9		20.0		14.0	
Mean adjustment:						
Percent.....	5.9		7.3		4.6	
Cents.....	16.4		21.2		11.7	
Mean increase:						
Percent.....	6.8		7.4		6.1	
Cents.....	18.8		21.4		15.5	

<sup>1</sup> Insufficient information to compute amount of increase.

<sup>2</sup> Percent of average hourly earnings, excluding overtime.

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

Typical escalator increases under major collective bargaining agreements in selected industries are shown in table 5. The substantially larger increases in meatpacking reflect the absence in that industry of a ceiling on escalator adjustments. Maximum limits on adjustments restricted the size of increases in the automobile, farm and construction equipment, and aerospace industries. For about three-fifths of the workers under escalator provisions, the amount of adjustment was limited. (The size of increases shown in table 5 is also affected by the exclusion of guaranteed minimum increases under escalator clauses, since such increases were not dependent upon movements in

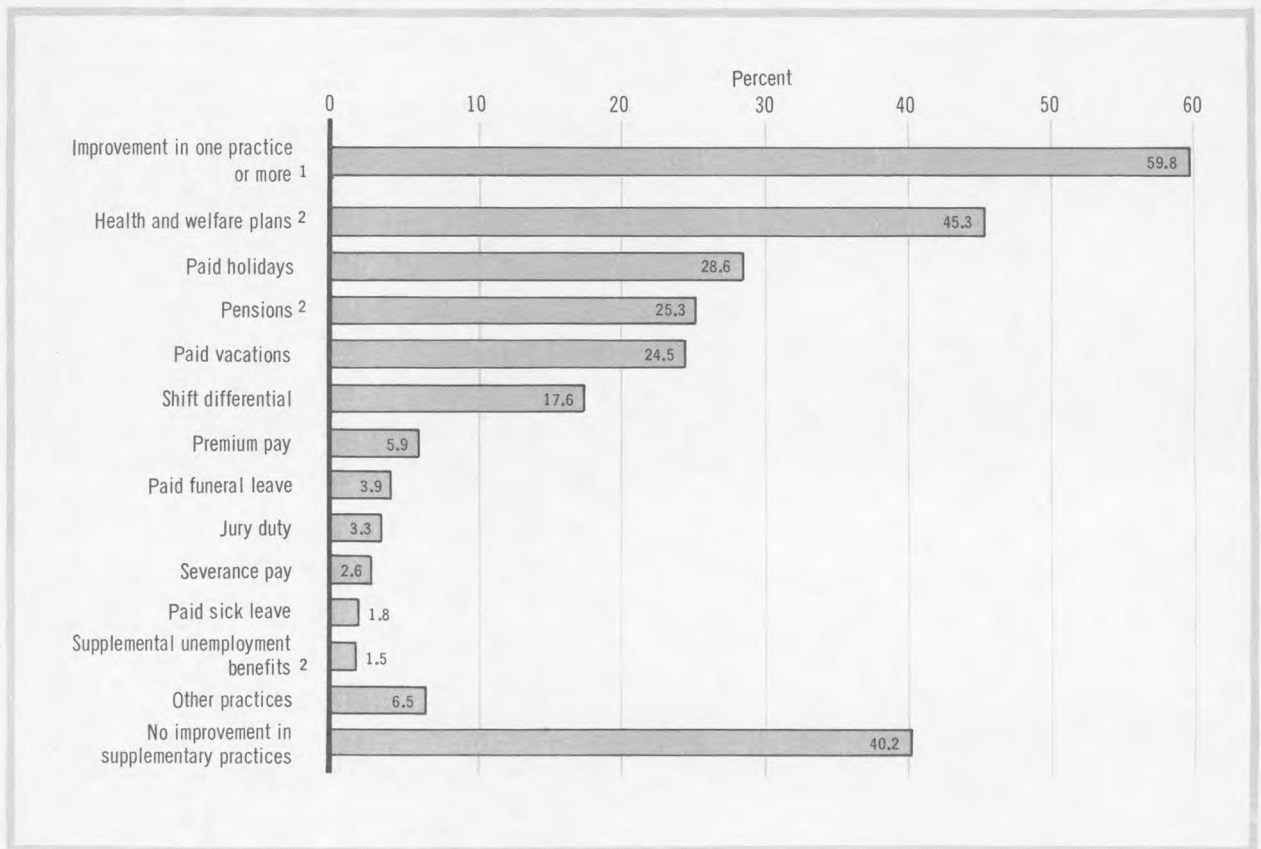
the Consumer Price Index.)

Quarterly escalator reviews continued to decline in popularity. In 1969, pay of only about 1 in every 6 workers covered by escalator provisions was subject to quarterly review, compared with 1 in 5 during 1968, 2 out of 5 in 1967, and 4 out of 5 in 1966. Annual review was the most popular approach in 1969, affecting three-fifths of the workers.

### Supplementary benefits

Of the 6.2 million workers affected by 1969 wage decisions, about 60 percent also benefited

**Chart 1. Percent of workers covered by wage decisions who were affected by establishment or liberalization of supplementary practices, 1969.**



<sup>1</sup> The total percentage in this column is smaller than the sum of the individual items, since some actions affected more than one item.

<sup>2</sup> Includes actions in which contributions were increased to maintain existing benefits. Excludes actions increasing benefits without increased employer contributions.



from the establishment or liberalization of one or more supplementary practices. (See chart 1.) This compares with 71 percent in 1968 and 70 percent in 1967. In some apparel industries, contract reopening provisions limited bargaining to wages; this was a factor in the decline in supplementary benefit changes.

As in the past 2 years, health and welfare benefits were the most frequently improved or established; 2.8 million workers (45.3 percent of the total) were affected by these changes. Other supplementary benefits often changed in order

**Table 4. Total effective general wage changes in 1969, by type of establishment**

Type and amount of wage action	Production and related workers (in percent)		
	All	Union	Nonunion
Manufacturing establishments with general wage change policies.....	100.0	100.0	100.0
No wage changes.....	11.1	6.8	24.5
Decreases in wages.....			
Increases in wages.....	88.9	93.2	75.5
IN CENTS PER HOUR			
Under 5.....	1.0	.5	2.2
5 and under 7.....	2.3	2.4	2.1
7 and under 9.....	3.3	3.5	2.4
9 and under 11.....	9.0	8.7	10.0
11 and under 13.....	8.1	7.9	8.9
13 and under 15.....	13.9	13.8	14.1
15 and under 17.....	10.5	10.6	10.3
17 and under 19.....	7.8	8.8	4.8
19 and under 21.....	13.6	15.3	8.6
21 and under 23.....	4.6	4.9	3.5
23 and under 25.....	2.3	2.7	1.1
25 and under 27.....	2.5	3.0	1.0
27 and over.....	8.3	9.5	4.9
Not specified or not computed <sup>1</sup> .....	1.6	1.6	1.5
IN PERCENT <sup>2</sup>			
Under 1.....	.3	.1	1.0
1 and under 2.....	1.0	1.2	.6
2 and under 3.....	3.6	4.0	2.1
3 and under 4.....	12.7	14.8	5.9
4 and under 5.....	16.3	18.4	9.6
5 and under 6.....	20.2	22.1	14.5
6 and under 7.....	14.1	11.0	23.8
7 and under 8.....	7.0	7.2	6.2
8 and under 9.....	3.4	3.5	3.0
9 and under 10.....	2.6	2.4	3.2
10 and over.....	6.2	6.9	4.1
Not specified or not computed <sup>1</sup> .....	1.6	1.6	1.5
Total number of workers (in thousands).....	13,035	9,862	3,173
Median adjustment:			
Percent.....	5.0	5.0	5.1
Cents.....	15.0	15.0	12.6
Median increase:			
Percent.....	5.1	5.0	6.0
Cents.....	15.3	16.0	14.3
Mean adjustment:			
Percent.....	5.1	5.3	4.6
Cents.....	15.3	16.4	11.8
Mean increase:			
Percent.....	5.8	5.7	6.1
Cents.....	17.2	17.7	15.7

<sup>1</sup> Insufficient information to compute amount of increase.  
<sup>2</sup> Percent of average hourly earnings, excluding overtime.

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

**Table 5. Typical cost-of-living escalator increases in selected manufacturing industries, 1957-69**

[In cents per hour]

Date	Auto-mobile	Farm and construction equipment	Aerospace	Meat-packing
1957.....	6	6	1 8 or 9	5
1958.....	6	6	2 4 or 5	8
1959.....	3	3	2 2 or 3	3
1960.....	4	4	2 1 or 2	3
1961.....	3 2	2 1 or 2	3	2
1962.....	3	3	3	2
1963.....	3	2 3 or 4	2 3 or 4	3
1964.....	3	3	4	4
1965.....	4	4	4	4
1966.....	11	11	2 5-10	8
1967.....	4 2 or 5	5 5	2 3-8	5 5
1968.....	4 5	5 5	7 3-13	12
1969.....	4 5	5 5	7 5-17	16

<sup>1</sup> The 1957 changes apply to employees of only a few firms; escalator clauses were not established at some others until 1958. By 1965, most companies had escalator clauses, including all the large firms on the Pacific Coast.

<sup>2</sup> Varying by company.

<sup>3</sup> Includes 1 cent diverted for pension improvements.

<sup>4</sup> Three quarterly escalator reviews of the cost-of-living allowance at American Motors Corp. and 2 reviews at other automobile companies resulted in increases of 5 cents and 2 cents, respectively, in 1967 prior to contract expiration in the fall. New 3-year agreements at General Motors Corp., Ford Motor Co., and Chrysler Corp. changed escalator reviews to annual from quarterly with a minimum of 3 cents and a maximum of 8 cents in both 1968 and 1969. In 1967 American Motors Corp. negotiated a 2-year contract which provided an 8-cent wage increase in 1968 (in lieu of wage adjustments based on changes in the CPI) in addition to a 3-percent deferred wage increase. In 1969, American Motors Corp. negotiated a 1-year agreement, due to expire in October 1970, providing a 3-percent general increase with "catch-up" adjustments of 15 cents an hour for skilled workers and 5 cents for unskilled workers, and an immediate 8-cent-an-hour cost-of-living adjustment.

<sup>5</sup> Three quarterly escalator reviews in 1967 resulted in total increases of 5 cents prior to contract expiration in the fall. New 3-year agreements changed escalator reviews to annual from quarterly with a minimum of 3 cents and a maximum of 8 cents in both 1968 and 1969.

<sup>6</sup> Resulting from one semiannual review prior to contract expirations; new agreements negotiated during the year deferred the first semiannual review until 1968.

<sup>7</sup> Resulting from 2, 3, or 4 reviews of cost-of-living allowances prior to contract expirations during 1968 at most companies. Most agreements negotiated in 1968 changed escalator reviews to annual from quarterly, with the first review in 1969, and established minimum annual increases of 3 cents and maximums of 8 cents.

NOTE: Guaranteed minimum increases under escalator clauses are excluded.

of frequency, were paid holidays, pensions, and paid vacations. In each of these three cases, about one-quarter of the workers were affected.

Details of changes are available for 1.5 million workers affected by major collective bargaining decisions. In the health and welfare field, improvement in hospital and/or medical and surgical benefits affected 437,000 workers; life insurance improvements covered 390,000 workers. Addition of a tenth paid holiday affected 156,000 workers, with adoption of eighth and ninth paid holidays following closely in terms of workers affected. The most frequent pension change was an increase in normal retirement benefits, affecting 470,000 workers. Company payments into pension funds to finance unspecified changes increased for 118,000 workers, and early retirement and disability provisions were improved for 112,000 workers. Changes in vesting provisions affected some 70,000 workers. The years of service required for 2 or 3 weeks of vacation were reduced for 207,000 workers. □

# Prospects for growth in preprimary education

More than adequate supplies  
of teachers in the 1970's  
may help meet  
the increasing demand  
for very early schooling

JANICE NEIPERT HEDGES

UNTIL THE EARLY 1960's, kindergartens and nursery schools were widely viewed as an advantage to a child rather than an integral part of his education. New findings, however, have disclosed the importance of the preprimary years to educational development. Very early schooling has been found to be particularly critical for disadvantaged children, since relatively few of these youngsters acquire at home the experiences and language skills that are necessary if they are to benefit fully from primary schooling.

Attention is focusing on the value of schooling prior to the first grade as we approach a period in which slowing growth in school enrollments and record numbers of new college graduates prepared to teach will make it possible to staff new or expanded educational programs. Prospects are that by the early 1970's the longterm shortage of teachers will be coming to an end. For the 1968-80 period, the projected additional supply of over 2 million elementary school teachers is almost twice the number required to meet expected demands, based on estimates of population growth,<sup>1</sup> continuation of past trends in pupil-teacher ratios, and replacement demands for teachers who retire, die, or leave teaching for other reasons.

The combination of these factors—a growing appreciation of the value of preprimary education and a period when teacher shortages are giving way to abundant supplies—may encourage the establishment of universal kindergartens for all 5-year-olds and nursery schools for large proportions of the 4-year-old and 3-year-old population.

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The supply of teachers also will be adequate to improve the quality of preprimary education by lowering the number of pupils among whom a teacher must divide her attention. Provided that funds are made available and that sufficient numbers of teachers are trained for this level of teaching, education for children aged 3 to 5 could be expanded substantially in the years ahead.

## The current situation

In October 1968, kindergartens and nursery schools in the United States enrolled about 3.9 million children aged 3, 4, and 5 years.<sup>2</sup> Preprimary enrollments in that year were about 740,000 higher than in 1964, despite a decline of about 590,000 during the 5-year period in the number of 3- to 5-year-olds.

School enrollment rates for 5-year-old children were far higher than for 3- and 4-year-olds in 1968. More than three-fourths of the children aged 5 years were enrolled,<sup>3</sup> but less than one-fourth of those aged 4 and less than one-tenth of the 3-year-olds were in school.

However, enrollment rates of younger children had been rising rapidly during the mid-1960's, due to such factors as growing awareness of the importance of early education and increasing employment among mothers of young children. From 1964 to 1968, the proportion of 4-year-olds enrolled in school increased by one-half and the proportion of 3-year-olds doubled, whereas school enrollment rates of 5-year-olds increased by only one-tenth (from 69 percent in 1964).

Kindergartens enrolled about 3.1 million children in 1968; nursery schools, about 800,000. Nursery schools, however, accounted for an increasing proportion of preprimary enrollments,

rising from 15 per 100 preprimary enrollments in 1964 to 21 per 100 in 1968.

**WHITE AND NEGRO.** White children and children of other races<sup>4</sup> had nearly identical enrollment rates in 1968. Enrollment rates by specific age, however, showed striking differences:

<i>Age in years</i>	<i>White</i>	<i>Negro</i>
Total, 3- to 5-year-olds.....	37	36
5-year-olds.....	78	70
4-year-olds.....	22	29
3-year-olds.....	8	10

Among the 5-year-olds, white children were more likely to be enrolled, while among the 3- and 4-year-olds Negro children had a higher enrollment rate. Higher enrollment rates for Negro children under the age of 5 may be attributed in large part to the fact that Negro mothers with young children are more likely to work than white mothers. Also, Negro children are more frequently eligible for Head Start and other educational programs designed to benefit children of low income families.

Differences in enrollment patterns of the 4-year-olds were even more pronounced in 1968 than in 1964, with the differential increasing from about 2 percentage points in 1964 to 7 percentage points in 1968. Among 5-year-olds, on the other hand, the 8-percentage point differential of white children in 1964 still held in 1968. (See chart 1.)

**URBAN AND RURAL.** Enrollment rates differ greatly between urban and rural areas. The proportions of 5-year-olds enrolled in school in 1968 were much higher in central cities and suburban areas than in rural areas, and relative differences in enrollment rates were even greater for the 3- and 4-year-olds.

Among 5-year-olds in each place of residence—central city, suburban, or rural—white children had higher enrollment rates than children of other races, but differences were greatest in rural areas. For the 3- and 4-year-olds in rural areas, enrollments were about the same for both groups. However, in the suburbs the proportion of 3- and 4-year-old Negro children enrolled was about one-fifth larger than the proportion of white youngsters, and in the central cities was half again as large.

In each place of residence, significant increases occurred during the 1964–68 period in enrollment rates for 5-year-olds, but rates of Negro 5-year-olds

in central cities and suburban areas showed little or no improvement. During the same period, enrollment rates of 4-year-olds increased in all areas, with greater increases for Negroes than for whites.

**FAMILY INCOME.** Higher income and higher enrollment rates seem to go together. In all age groups, children in high income families had significantly higher enrollment rates than those in low income families. To illustrate, enrollment rates of 5-year-olds were more than half again as high for children in families having incomes of \$10,000 or more than in families having incomes under \$3,000, while the enrollment rate of 3- and 4-year-olds in the higher income families was more than double the rate for children in the lower income families.

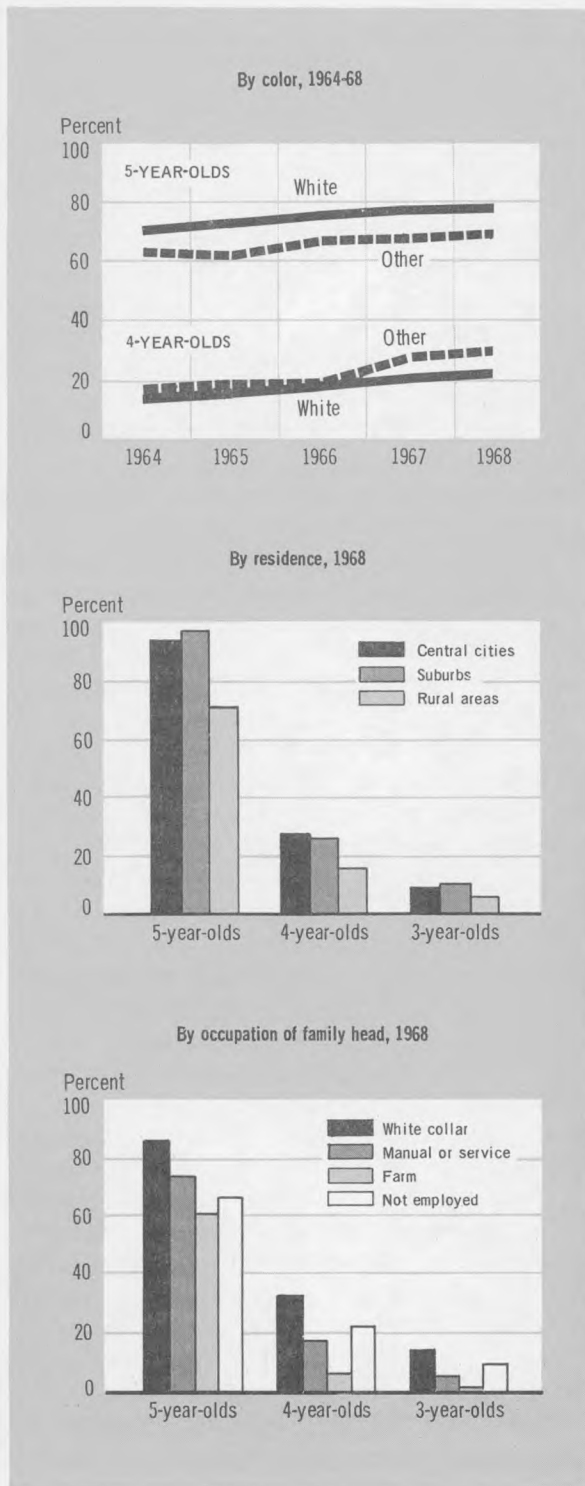
Enrollments of children in low income families, however, have increased significantly in recent years. In families having incomes under \$3,000, enrollment rates of the 3- to 5-year-olds increased by one-half from 1964 to 1968, compared with an increase of less than one-tenth for children in families having incomes of \$7,500 or more.

**OCCUPATION OF THE FAMILY HEAD.** As the data on enrollments by family income suggest, the proportion of children enrolled in families headed by white-collar workers, who generally have higher incomes than other families, is greater than in other families.

In Negro families headed either by a white-collar worker or by a manual or service worker, the proportions of 3- to 5-year-olds enrolled were higher than in white families headed by workers in those occupations. However, in families headed by a farm worker, rates were higher for white children than for those of other races. In families whose head was either unemployed or not in the labor force, rates for the two groups were similar.

The importance of the occupational factor in determining enrollment rates is illustrated by the fact that although in general white 5-year-olds were much more likely than those of other races to be enrolled in school in 1968, in families headed by white-collar workers Negro 5-year-olds were slightly more likely to be enrolled than white 5-year-olds. Among 4-year-olds, the likelihood that a nonwhite child would be enrolled was increased by almost three-fifths if he came from a

**Chart 1. School enrollment of children aged 3 to 5 years, by selected characteristics**



family headed by a white-collar worker. Higher enrollment rates for children in white-collar Negro families may reflect the special importance attached in these families to education.

Children aged 4 living in families headed by white-collar workers had the largest increase in enrollment rates in the 5 years from 1964 to 1968. The smallest increase also was among 4-year-olds, those living in families headed by manual or service workers.

**REGION.** Another factor in attendance rates for children aged 3 to 5 years is the region in which they live. In the Northeastern, North Central, and Western States, nearly 9 out of 10 children aged 5 were enrolled in 1968; in the South, about 1 in 2 children. The Western States led in the proportion of 4- and 3-year-olds enrolled, 28 and 13 percent, respectively. The North Central region enrolled the smallest proportion of both 4-year-olds (18 percent) and 3-year-olds (6 percent).

The greatest percentage point growth from 1964 to 1968 in enrollments of 5-year-olds took place in the South, but 1968 enrollments in that region were still much lower than those in any other region. Of 17 States that reported providing no State aid for public kindergartens in 1968, 10 were in the Southern region. For the 4-year-olds and 3-year-olds, the greatest percentage point increases in the 5-year period were in the West and South.

### The outlook

If the 1964-68 trend in preprimary enrollment rates were to continue, by 1980 about 90 percent of all 5-year-olds, 40 percent of all 4-year-olds, and 20 percent of all 3-year-olds would be enrolled in school. On this basis, kindergarten and nursery school enrollments would increase from 3.9 million children in 1968 to about 6.3 million in 1980.

Past trends, however, may not adequately measure growth when new elements come into play. As teacher shortages disappear and growing interest in preprimary education finds expression in such directions as expanded programs for disadvantaged children or public education for 4-year-olds—as recommended by the National Ed-

ucation Association and other educational groups—enrollments of 3- to 5-year-olds may rise well above the levels that have been projected on the basis of past trends. By 1980, approximately 100 percent enrollment of 5-year-olds seems within reasonable reach. Enrollment rates of 50 percent for 4-year-olds and 30 percent for 3-year-olds, in each case a 10 percentage point increase over trend projections, also seem quite possible. These assumed rates would yield total preprimary enrollments of 7.6 million in 1980, or about 1.3 million more than projected on the basis of past trends.

If recent trends in enrollment rates and in pupil-teacher ratios should continue, demands for preprimary teachers would reach nearly 120,000 full-time equivalents in 1980, about 50,000 over the number employed in 1968.<sup>5</sup> At this level, manpower requirements for growth and replacement from 1968 to 1980 would total 120,000. However, the higher enrollment rates discussed above would increase demands well above this level. In addition, a substantial lowering in the pupil-teacher ratio may be expected. A ratio of one teacher (plus two auxiliary workers) to every 20 children is often recommended in preprimary

education. Achievement of this ratio, together with the accelerated growth in enrollment rates outlined above, would result in demands for 220,000 preprimary teachers in 1980. These requirement projections are about 100,000 higher for 1980, or nearly double those based on a continuation of past trends in enrollment rates and pupil-teacher ratios. These higher projections would indicate total manpower needs of 280,000 over the 1968-80 period, 150,000 for growth and 130,000 for replacement.

### Implications

Supplies of teachers will be available by the early 1970's to afford all children—rural as well as urban, from families headed by blue-collar as well as by white-collar workers, from low-income as well as high-income families—the opportunity to attend nursery school and kindergarten. Teacher supplies also will be adequate to lower pupil-teacher ratios.

Department of Labor projections for elementary school teachers, based on the continuation of recent trends in both enrollment rates of the school age population and pupil-teacher ratios, indicate that manpower needs for growth and replacement will total 1.2 million (including 120,000 preprimary teachers) over the 1968-80 period. If past patterns of entry to the profession continue, the potential supply will be almost 2 million, or about 800,000 greater than demand. The accelerated growth in kindergarten and nursery school enrollments and the reduction in preprimary pupil-teacher ratios assumed in this article could absorb about 160,000 of the potential overflow of elementary school teachers. Further reduction in the gap may be expected from the expansion of specialized education for handicapped children and other programs to meet educational needs.

In 1968, only 4,400 degrees were granted in early childhood education. To fill manpower demands in preprimary education based on past trends, an annual average of almost 10,000 new teachers in this field would be required between 1968 and 1980. To meet the higher requirements resulting from accelerated enrollment growth in preprimary education and recommended pupil-teacher ratios, an average of about 23,000 new

**Table 1. Percent of children enrolled and number not enrolled, by age and other characteristics, 1968**

[Numbers in thousands]

Characteristic	3- and 4-year-olds			5-year-olds		
	Percent enrolled, 1968	Percent point increase, 1964-68	Number not enrolled, 1968	Percent enrolled, 1968	Percent point increase, 1964-68	Number not enrolled, 1968
<b>Region:</b>						
Northeast.....	17.2	4.9	1,525	89.0	3.4	107
North Central....	11.9	5.0	1,943	87.3	7.9	146
South.....	15.1	7.1	2,044	51.9	12.2	622
West.....	20.9	8.1	1,071	88.8	6.9	76
<b>Residence:</b>						
Central cities....	18.3	6.6	1,803	94.0	15.0	71
Suburbs.....	18.5	5.9	2,267	97.5	19.3	36
Rural.....	10.9	5.6	2,508	72.4	20.1	400
<b>Family income:</b>						
Under \$3,000....	12.6	8.0	658	55.2	7.6	178
\$3,000-\$4,999..	12.1	5.9	1,100	63.8	5.9	220
\$5,000-\$7,499..	11.8	3.6	1,729	73.5	0.2	259
\$7,500 and over.	20.0	3.6	2,688	86.8	-2.7	251
<b>Occupation of head of household:</b>						
White-collar....	23.6	8.7	2,053	86.1	6.8	199
Manual or service.....	11.1	4.0	3,464	73.6	7.2	521
Farm.....	3.1	2.2	281	60.5	16.8	70
Unemployed or not in labor force.....	16.0	9.6	609	66.5	2.4	143
<b>Color:</b>						
White.....	15.0	5.7	5,549	78.2	7.8	751
Other.....	19.4	8.9	1,034	69.6	7.2	199

teachers trained in early childhood education would be needed each year. The urgency of providing adequate supplies of teachers trained in the education of young children is indicated by a statement in the first report on the state of the education professions: "It may well turn out that those [teachers] dealing with very young children require the most sophisticated training."<sup>6</sup>

An accelerated growth in kindergarten and nursery school enrollments during the period 1968-80 may be expected to increase requirements for paid nonprofessional workers. If the recommended staff ratio of two paid nonprofessionals to one teacher prevails, demand for nonprofessionals may exceed the additional demand for teachers and may require large-scale expansion in training programs for teacher aides and assistants.

A suggestion as to the location of the additional teaching jobs that may be created and the need for special preparation in teaching disadvantaged children is indicated by a comparison of 1964-68 increases in enrollment rates among groups of 3- to 5-year-olds having different characteristics, and the number of children in the various groups who were not enrolled in 1968. (See table 1.) □

—FOOTNOTES—

<sup>1</sup> Bureau of the Census population projections Series C are used throughout this article.

<sup>2</sup> Data on enrollments from 1964 to 1968 were collected by the Bureau of the Census for the National Center for Educational Statistics (NCES), Office of Education, U.S. Department of Health, Education, and Welfare. These data are published annually in *Preprimary Enrollment of Children Under Six*, NCES.

<sup>3</sup> An additional 444,000 5-year-olds were in programs above the kindergarten level. Throughout the article, school enrollment rates for 5-year-olds include those in elementary school—about 14 percent of total enrollments of 5-year-olds in 1968. (This group was excluded, however, in calculating teacher requirements for preprimary grades.)

<sup>4</sup> "Other races" includes Negroes, American Indians, Chinese, Japanese, and other Oriental Americans. However, the data basically reflect the situation of Negroes, who make up more than nine-tenths of the "other races" category.

<sup>5</sup> Requirements are expressed in full-time equivalents since teachers may teach either full- or part-time in full- or half-day programs.

<sup>6</sup> *The Education Professions, 1968: A Report on the People Who Serve Our Schools and Colleges* (U.S. Department of Health, Education, and Welfare, Office of Education), p. 5.

### Early childhood education

Why nursery schools and kindergartens? Too quickly the answer comes: "To prepare children for the first grade." But if the children are in nursery schools or kindergartens, nursery school or kindergarten *is* the first grade. And the fourth or fifth year of life is as worthy as the sixth year of life. There is no need for "prep" schools, no need for boot camps, certainly no need at this early stage in life to give up today for the sake of tomorrow.

"Preparing children for the first grade" is not a reason. First grade teachers have the same job every teacher faces: to work with the children who come, to work with them as they are. Each grouping has its children and each, its job to do. But preparation—breaking them in, getting them ready, softening them up—is not the job of any one grade. It's not the job of first grade to get them ready for second grade, not the job of kindergarten to get them ready for the first, not the job of nursery school to

get them ready for kindergarten. This is a needless, dead-end, and even an indecent way of thinking about any year of life. . . .

A good nursery or kindergarten is a school. Because it seeks to promote the child's maximum total development through the school's special province—learning—its job is the same as the job of all schools: to teach.

A nursery or kindergarten is a child's little world, his first step out into the wider world. It is a school of general education where children learn their year's worth of all the forms of human knowledge, but they learn it in a setting and in a way and through relationships and to the end that they are moved a little toward those qualities of the human on which the good life itself depends.

—JAMES L. HYMES, JR.,

"Why Programs for Young Children?"  
*Today's Education*, April 1970.

Coverage  
during the 1960's  
remained relatively stable  
while benefits  
were liberalized

HARRY E. DAVIS AND ARNOLD STRASSER

# Private pension plans, 1960 to 1969— an overview

PRIVATE PENSION PLAN COVERAGE grew from about 15 million workers in 1960 to about 21 million by the end of 1969, an average rate of about 3.6 percent a year.<sup>1</sup>

This pace was slower than that recorded during the previous decade, when plan coverage more than doubled. Moreover, growth during the 1960's was primarily attributable to increased employment in firms that already had private pension plans; during the 1950's, growth resulted largely from the introduction of new plans. Because of these different patterns, worker coverage during the 1960's remained relatively stable at about one-third of average annual employment in the private nonagricultural sector of the economy, a ratio more than twice that of the early 1950's when plan coverage began to burgeon, largely because the Inland Steel Case of 1949 made pension plans legally subject to collective bargaining.<sup>2</sup>

The growth rate for total private pension plans tends to obscure the fact that multiemployer plans expanded greatly during the 1960's—at an annual average rate of 5.7 percent, compared with 2.7 percent for single-employer plans. Multi-employer plans are now estimated to cover more than 6 million workers, approximately 30 percent of all workers under private pension plans, compared with fewer than 4 million at the beginning of the decade, about 25 percent of all workers then participating in such plans.

Most of the added coverage under both multi-employer and single-employer plans resulted

from increased employment in firms already having plans and, to a lesser extent, to the establishment of new plans covering workers who had previously been without private pension coverage. However, some of the new multiemployer coverage resulted from the merger of single-employer plans into multiemployer ones.

Notwithstanding the relatively static overall growth pattern during the 1960's, private pension plans underwent a radical transformation during the period. Some of the sharpest changes occurred during the last third of the decade. Benefit formulas were substantially liberalized, and early retirement and vesting provisions were introduced or liberalized. By the end of the decade, more than three-fourths of the workers were in plans that had a vesting provision and more than nine-tenths in plans with vesting, early retirement, or both.<sup>3</sup> (See table 1.) Consequently, at the end of the decade, workers were much more likely to have nonforfeitable pension rights if they left the scope of a plan.

To gain these rights, however, workers had to meet an age, service, or more often, as shown in table 2, a combination of age and service requirements. The requirements of the plan provisions prevailing in 1969 can be generally illustrated by considering 100 workers who entered covered employment at age 25. Under the 1969 provisions, if these workers, who represent all covered workers, remain with their plan for 10 years, only 31 of them will have gained a nonforfeitable right to a pension benefit; if they remain for 15 years, 51 of them will have achieved such a right, and after 20 years only 57 of them would attain a nonforfeitable right to a pension benefit. At any of these service—ages, virtually all 57 would have gained their benefit right under the vesting provisions of their plan. This is so, because the early retirement

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Harry E. Davis is an economist and Arnold Strasser a project director in the Division of General Compensation Structures, Bureau of Labor Statistics. The authors wish to acknowledge the contribution that Majella A. Leary of the same office made in the early stages of this study.

provisions do not usually become operative until the worker becomes 55 and normal retirement rarely occurs before age 60. Should the 100 workers have entered into their covered employment at age 30 instead of 25, however, more than three-fourths of them would have gained a nonforfeitable right after 20 years of service. Some of these would become eligible for early retirement after 20 years of service, and by age 55 about three-fourths of them would have qualified for early retirement.

Moreover, these changes in the prevalence of vesting and early retirement provisions occurred at the same time that employers were increasing their contributions toward the cost of their employees' pension. Some assumed a greater share of the cost, others assumed the entire cost. As a result of these changes, by the end of the decade only about one-fifth of the covered workers were required to contribute toward the cost of their pension benefit; more than one-fourth of the covered workers had done so at the beginning of the period.

Plans with vesting provisions (as distinguished from those with early retirement provisions) covered more than three-fourths of all participa-

ting workers in 1969, compared with about three-fifths during the earlier part of the decade. The prevalence of vesting increased at a faster pace over the period in multiemployer plans and in noncontributory plans than in either single-employer or contributory plans. The greatest growth was in the multiemployer type, where the proportion of workers in plans with vesting increased only slightly during the first two-thirds of the decade but nearly doubled between 1967 and 1969. In spite of this dramatic growth, vesting is still far more prevalent in single-employer plans. In 1969, 87 percent of the workers covered by single-employer plans were in those with some form of vesting, compared with 51 percent of the workers covered by multiemployer plans; 89 percent of the workers under contributory plans and 74 percent of the workers covered by noncontributory plans were in plans with some form of vesting.

Plans with early retirement provisions, either separately or in conjunction with a vesting provision, covered about nine-tenths of all participating workers in 1969, compared with about three-fourths during the early 1960's. The prevalence of early retirement provisions in multiemployer plans and in noncontributory plans increased at a faster pace over the period than in either single employer or contributory plans. The greatest growth was in multiemployer plans. In 1969, about three-fourths of the workers participating in multiemployer plans were covered by early retirement provisions; at the beginning of the decade, only about one-fourth. The prevalence of early retirement provisions, like vesting provisions, is still, however, greatest in single-employer plans.

The rest of this article describes the coverage of private pension plans as of the end of 1969 and their provisions relating to plan participation and to the attainment of a nonforfeitable right to a pension benefit under the normal retirement, early retirement, and vesting provisions. Although these provisions are designed to serve different purposes, all of them generally assure the payment of benefits to workers meeting their requirements.

**Table 1. Selected characteristics of private pension plans, 1969, 1967, and 1962-63**

Characteristic	1969	1967	1962-63
Number of plans <sup>1</sup> .....	17,403	17,091	16,031
Number of active covered workers (in thousands) <sup>1</sup> .....	19,511	17,485	15,787
Single-employer plans.....	13,869	12,555	11,802
Multiemployer plans.....	5,550	4,929	3,985
Noncontributory plans.....	15,368	13,351	11,784
Contributory plans.....	4,051	4,134	4,003
Percent of active covered workers:			
In plans with either vesting or early retirement provisions.....	91	82	82
Single-employer plans.....	96	95	95
Multiemployer plans.....	78	41	41
Noncontributory plans.....	89		
Contributory plans.....	96		
In plans with vesting provisions.....	77	63	59
Single-employer plans.....	87	77	71
Multiemployer plans.....	51	26	23
Noncontributory plans.....	74	57	51
Contributory plans.....	89	80	78
In plans with early retirement provisions.....	87	75	75
Single-employer plans.....	93	91	91
Multiemployer plans.....	74	29	29
Noncontributory plans.....	88	74	74
Contributory plans.....	87	81	81

<sup>1</sup> Data relate only to those private pension plans covering more than 25 participants for which the plan administrator filed a report with the Department of Labor's Labor-Management Services Administration. Plans providing noncomputable retirement benefits (such as profitsharing plans) were excluded from all studies. The active worker count in each study is for a period about 2 years earlier than in the study's reference date. The totals presented here for 1969 include 529 plans covering 92,332 workers, for which complete information was not available in the Department's files at the time the study was conducted; all subsequent data for 1969 exclude these plans.

NOTE: Dashes indicate data not available.

## Pension plans in 1969

Most private pension plans are small scale undertakings but a majority of the covered workers

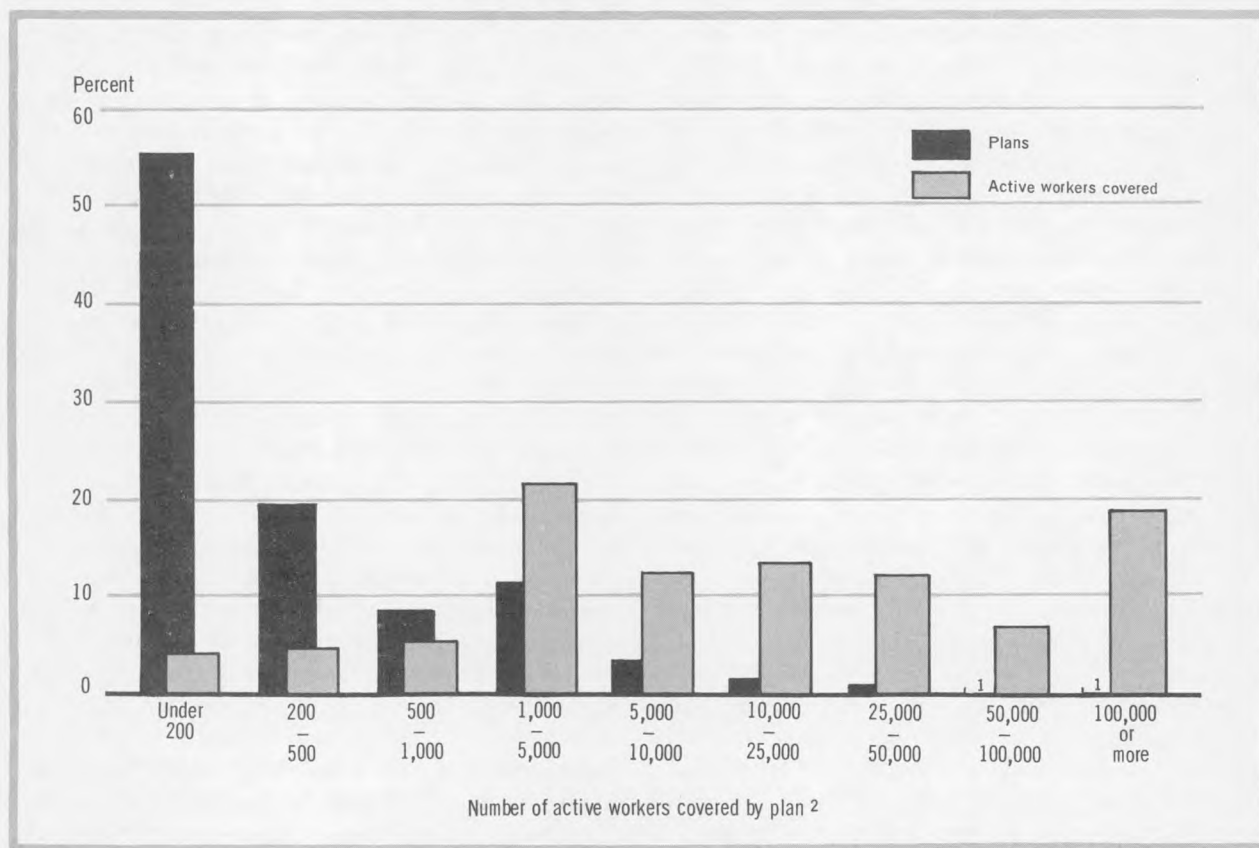


participate in a few relatively large plans. (See chart 1.) More than half the covered workers included in this study were in plans covering 10,000 workers or more. Such plans, however, account for less than 2 percent of all private pension plans, and only about 2 percent of those with 26 or more active and retired participants on which this study is based. The 17 largest plans covered about 20 percent of all active workers in private pension plans. On the other hand, more than 14,000 plans, each with 26 but fewer than 1,000 participants, accounted for about 84 percent of the plans included in this study but only about 14 percent of the participants. The addition to the count of plans with fewer than 26 participants including those currently employed (active workers) and those who have retired, if the data were available, would substantially increase the number of small plans but, as suggested above, would have considerably less effect on the coverage statistics.

Although private pension plans cover workers in all segments of the economy, the extent of coverage varies widely from industry to industry. In 1969, about 60 percent of the active workers participating in private pension plans were employed by manufacturing firms and about three-fifths of these were employed by durable goods manufacturers. In the nonmanufacturing industries, coverage is especially widespread in the construction, transportation, communication, and public utility industries, where more than five-eighths of all nonmanufacturing coverage is concentrated.

Multiemployer plans, which in the aggregate are estimated to cover only about 30 percent of all active workers under pension plans, are particularly important in mining, construction, wholesale and retail trade, transportation, and service. In these industries, multiemployer plans cover substantially more than half of all active workers participating in pension plans. In manufacturing, multiemployer plans account for only

Chart 1. Private pension plans and covered workers, 1969



<sup>1</sup> 0.1 percent.

<sup>2</sup> See footnote 1, table 1.

about 1 of 8 active participants and are most important in the nondurable goods industries—principally in apparel manufacturing—where they cover about 1 of 3 workers under private pension plans.

Almost half the private pension plans in the scope of this study covered both salaried and production workers; about one-third limited participation to production workers; the others were limited to salaried workers. Plans covering both production and salaried workers, however, accounted for only two-fifths of the total coverage of large private pension plans. About 46 percent of the active worker coverage was in plans limited to production workers, and about 14 percent in plans restricted to salaried workers.

### Participation requirements

In the majority of private pension plans, new employees either become members of the plan as soon as they achieve regular full-time status or in contributory plans, when they agree to contribute. Some plans, however, require the attainment of a specified age or length of service, or both, before a new employee is eligible to participate. These requirements are usually justified on the basis of administrative cost and the uncertain tenure of new employees. However, the adoption of a participation requirement signifies more than administrative convenience, since three-fourths of the plans with participation requirements do not give credit for employment served before joining the plan, either in qualifying for a pension or in computing the pension benefit. These plans covered about three-fourths of the workers in plans with participation requirements.

In 1969, participation requirements were specified in 45 percent of the plans covering 22 percent of the workers. Almost half of the single-employer plans, covering fewer than a third of the workers, and about 6 percent of the multiemployer plans, with 3 percent of all covered workers, had participation requirements.

Contributory plans were far more likely than the noncontributory type to have participation requirements. Almost 70 percent of the contributory plans, with 58 percent of the covered workers, but only 36 percent of the noncontributory plans, with 12 percent of the workers, had some type of participation requirement.

Slightly more than half of the plans with participation requirements called for some minimum age and service combination; 2 out of 5 had a service requirement alone and the others had only a minimum age requirement.

In terms of the number of workers covered, the most frequent age and service combinations were age 25 with 1 year of service and age 30 with 1, 3, and 5 years of service. In plans with only a service requirement, the qualifying period ranged from 1 to 5 years, with the most common being 1 year and 5 years. Age requirements varied from under 20 to 40, 25 and 30 being the most common.

### Benefit guarantees

Workers who attain the minimum age, service, or combination of age and service as required by their plan are guaranteed a right to a pension benefit commencing either immediately or at some future date. Such guarantees, which substantially differ in degree, are offered under the normal retirement, early retirement, and vesting provisions of pension plans.

Normal retirement provisions pledge eligible workers lifetime retirement benefits and lay the foundation on which other benefits, such as early retirement, are based. Under the normal retirement provisions, workers who continue to work after meeting the retirement criteria—usually age 65 and 10 to 15 years of service—attain a nonforfeitable right to a pension benefit. Occasionally, however, this may occur as early as age 55 after 15 years of service or, in a few plans, at any age after 20 years of service.

Early retirement provisions allow workers to retire before normal retirement age and receive an immediate, reduced lifetime benefit computed on the basis of the normal retirement formula. Once a worker meets the age and service of such a provision, he has a nonforfeitable or vested right to a pension benefit. In general, workers may exercise their vested rights under the normal retirement or early retirement provisions of their plan when they receive such rights or at any time thereafter. Moreover, some plans permit a worker retiring under the early retirement provision to defer receipt of the benefit until his normal retirement age and then receive the unreduced normal retirement benefit, rather than the reduced early retirement benefit.

Under the vesting provision of a pension plan,

workers who meet the plan requirements, often specified only in terms of years of service, are entitled to a retirement benefit when they reach retirement age—usually the age specified for normal retirement but sometimes early retirement age.

Under each of these provisions, the worker who meets his plan's requirements can exercise a freedom of choice by continuing to work in employment covered by the plan, changing employment, or leaving the work force entirely. Those who have gained a nonforfeitable right to a pension benefit may exercise either of the two latter options without losing their benefit rights. Those who do not meet the plan requirements also have a freedom

of choice. However, their exercise of any option other than the option to continue to work under the plan results in forfeiture of their rights to any benefit from that plan.<sup>4</sup>

Workers eligible for normal retirement can retire immediately on full pension for life. Workers eligible for early retirement may retire and receive a reduced pension benefit for life, or continue to work and accumulate pension credits, thus boosting their final pension. In some cases, workers whose employment has been severed can elect to defer receipt of their "vested" early retirement benefit until they attain the normal retirement age. Workers who have vested rights and con-

**Table 2. Earliest age and associated service at which workers can acquire a nonforfeitable benefit right under the normal early, or vesting provisions of private pension plans, 1969**

Plan provision and minimum service requirement <sup>1</sup>	Percent distribution	Percent of active workers in plans with—									
		Total	No age requirement	Age requirement							
				Total	40 or less	Over 40 and under 50	50 and under 55	55 and under 60	60 and under 62	62 and under 65	65 and over
Normal retirement, early retirement, and vesting.....	100	100	42	58	19	4	9	10	5	2	9
Less than 5 years.....	2	100	38	62	5		3	32	11		11
5 to 10.....	37	100	67	33	15	4	3	5	3	1	2
11 to 15.....	36	100	20	80	36	5	15	12	3	3	5
16 to 20.....	17	100	28	62	1	5	10	16	8	3	30
More than 20 years.....	8	100	52	48	( <sup>2</sup> )	( <sup>2</sup> )	7	9	17	2	13
Normal retirement.....	100	100	6	94				3	8	14	69
Less than 5 years.....	21	100		100					3	2	95
5 to 10.....	35	100		100					1	33	66
11 to 15.....	16	100		100				( <sup>2</sup> )	3	5	92
16 to 20.....	18	100	1	99				12	30	2	55
More than 20 years.....	11	100	50	50				7	16	10	18
Early retirement and vesting.....	91	100	46	54	21	5	10	11	5	2	
Less than 5 years.....	1	100	43	57	5		4	36	11		
5 to 10.....	36	100	68	32	16	4	3	5	3	1	
11 to 15.....	34	100	21	79	38	5	16	12	3	3	
16 to 20.....	11	100	43	57	2	8	15	20	9	3	
More than 20 years.....	7	100	61	37	( <sup>2</sup> )	1	8	10	17	2	
Early retirement.....	87	100	9	91			3	63	20	4	
Less than 5 years.....	9	100	1	99	( <sup>2</sup> )	2	4	71	22		
5 to 10.....	25	100	( <sup>2</sup> )	100	( <sup>2</sup> )		1	69	27	2	
11 to 15.....	23	100	( <sup>2</sup> )	100		1	2	73	17	7	
16 to 20.....	12	100	1	99			3	64	19	13	
More than 20 years.....	18	100	43	57			7	37	11	1	
Vesting.....	77	100	51	49	25	5	8	10			
Less than 5 years.....	1	100	82	18	12		6				
5 to 10.....	34	100	74	26	17	5	3	2			
11 to 15.....	30	100	26	74	44	5	19	6			
16 to 20.....	9	100	43	57	2	9	16	29			
More than 20 years.....	2	100	66	34	1	2	13	19			
Deferred full vesting.....	67	100	50	50	27	6	9	9			
Less than 5 years.....	( <sup>2</sup> )	100	93	7	7		7				
5 to 10.....	29	100	73	27	17	5	7	3			
11 to 15.....	26	100	24	76	50	6	13	7			
16 to 20.....	9	100	43	57	2	9	16	30			
More than 20 years.....	2	100	66	34	1	2	13	19			
Deferred graded vesting.....	10	100	62	38	9	3	4	22			
Less than 5 years.....	( <sup>2</sup> )	100	67	33	19		13				
5 to 10.....	5	100	77	23	15	2	6				
11 to 15.....	4	100	40	60	1		1	54			
16 to 20.....	( <sup>2</sup> )	100	69	31		3					
More than 20 years.....											

<sup>1</sup> The term service as used in this table is defined to include preparticipation service. The distribution includes 1,010 plans, with 2.3 million workers, that provide vested rights as shown in the table only in the event of involuntary separation (including continuous layoff); almost all of these plans also provide for the attainment of nonforfeitable rights, prior to normal retirement, in the event of voluntary separation. In such cases, the eligibility requirements are typically more stringent than those for

involuntary separation. Plans which provide for special early retirement—essentially those providing for early retirement at the employer's request with an unreduced or higher than normal retirement benefit are excluded from this table.

<sup>2</sup> Less than 0.5 percent.

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

tinue to work, of course, accumulate additional pension credits and thus boost their final pension.

About 84 percent of all covered workers participate in plans that grant a benefit right by age 55 under either the normal, early, or vesting provision of the plan to members who have the requisite service. Almost three-fifths can gain such a right by age 40, and about two-thirds by age 45, if they also meet the service requirements. In general, most workers participate in plans that require not more than 15 years of service, and almost two-fifths of them in plans that require 10 or fewer years to qualify for a nonforfeitable benefit right. (See table 2.)

However, virtually all the workers who acquire a nonforfeitable right to a pension benefit prior to age 55 gain the right under either the early retirement or the vesting provision of their plan.

### Normal retirement

In 1969, more than two-thirds of the active workers participating in private pension plans were in plans that provided for normal retirement at age 65. About 25 percent were in plans that provided for normal retirement before age 65, and another 6 percent in plans that had no age requirement. A handful of plans, covering about 12,000 workers, provided for normal retirement at age 68 and a few, with about 17,000 workers, provided for normal retirement at age 70.

Of the workers in plans that had a normal retirement age of less than 65, most—about 22 percent of all covered workers—could retire

under the normal retirement provisions at age 60 or 62, a few at age 55, and some at age 57 after attaining the requisite amount of service.

About 94 percent of the covered workers were in plans that had an age requirement for normal retirement. Approximately 80 percent were covered by plans that had a participatory service requirement in addition to age. Another 8 percent were covered by plans that had an age requirement and a preparticipation requirement but no requirement for additional participatory service. Needless to say, workers under these plans had to have some participatory service in order to accrue a retirement benefit.

An estimated 72 percent of all active workers under private pension plans during 1969 were in plans that permitted participants to retire after 15 years of service, provided that they also met the age test—usually 65 but in a few cases as early as 55. More than 60 percent of these workers could retire with 10 years of service, and about 25 percent with fewer than 5 years of total service (including preparticipation service). In other plans, workers had to satisfy more stringent service requirements.

Plans requiring more than 15 years of service to qualify for normal retirement generally had substantially less stringent age requirements than other plans, and some requiring more than 15 years of service for normal retirement had no age requirement. The absence of an age requirement was particularly prevalent among plans that required more than 20 years of service. Half the workers covered by such plans could retire as soon

**Table 3. Type of benefit formula in private pension plans by type of plan, 1969**

Type of plan	Percent distribution	Percent of active covered workers in plans whose benefit formulas are—							
		Total	Not based on earnings <sup>1</sup>	Based on earnings					
				Total	Career earnings	Terminal earnings			
						Total	Last year before retirement	Last 5 or high 5 years	Last 10 or high 10 years
All plans.....	100	100	52	48	21	27	1	22	4
Single employer plans.....	71	100	37	63	27	36	2	29	5
Multiemployer plans.....	29	100	92	8	5	3	1	3	( <sup>2</sup> )
Contributory plans.....	21	100	22	78	50	28	1	21	6
Noncontributory plans.....	79	100	61	39	13	26	1	22	3
Plans covering:									
Salaried employees only.....	14	100	16	84	33	51	2	43	6
Salaried and hourly employees.....	39	100	25	75	35	40	1	32	7
Hourly employees only.....	47	100	87	14	6	8	1	7	( <sup>2</sup> )

<sup>1</sup> Includes plans that provide a uniform benefit to all retiring workers who meet the plans age and service requirements, and plans that pay a benefit based on a uniform amount for each year of service.

<sup>2</sup> Less than 0.5 percent.

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

as they achieved the requisite years of service—usually 30—and receive a normal pension benefit each month for the rest of their life.

### Normal retirement benefit formulas

The importance of normal retirement benefit formulas in private pension plans is twofold. First, they provide the basis for determining the monthly benefit to be paid plan members who retire under the normal retirement provisions of their plan, and second, they provide the basis from which all other benefits, such as early retirement benefits, are computed.

The formula, like other plan provisions, is usually specially designed to meet the needs of the plan members, taking into consideration the economics of their industry and the firms for which they work. Nevertheless, most formulas used to compute normal retirement benefits can be classified into one of three broad categories: (1) Formulas that either provide the same benefit to all eligible retirees or vary the benefit only by years of service; (2) formulas in which career earnings are used as the basis for computing the retirement benefit; and (3) formulas in which terminal earnings are used as the basis for computing the retirement benefit. The typical plan under both the career and the terminal earnings categories varies benefits on the basis of service.

Benefit formulas in single employer plans are principally based on an earnings concept. Thus, for more than three-fifths of those covered by single-employer plans, the final pension benefit is directly tied to their earnings. More than half of these workers are in plans that use terminal earnings in computing benefits. In contrast, multiemployer plans predominantly use a formula that either provides the same benefit to all retirees or varies the benefit solely on the basis of service. Only 8 percent of workers under multiemployer plans participated in plans that used an earnings-based formula, and for more than half of these, the final benefit was based on career rather than terminal earnings.

Plans that covered only salaried workers and plans that covered both salaried and hourly paid workers generally related benefits to the worker's earnings. Those plans that covered only hourly paid workers, however, predominantly used benefit formulas that did not take the worker's earnings

into consideration. Plans limited to hourly workers are estimated to cover slightly less than half those employed by firms with pension plans, and some of these plans—with about 14 percent of the active worker membership of this group—have formulas relating benefits to earnings.

The majority of workers participating in plans that base benefits on earnings were in plans that used terminal earnings in the computational procedure, preponderantly, as shown in table 3, in plans that based benefits on earnings in the last 5 or in the 5 highest earnings years.

The effect of the formulas on the normal pension benefits of workers—other than those formulas which provide for identically the same benefit to all current retirees—varies according to the worker's age, service, and earnings experience under the plan. The two latter considerations are defined in each plan to meet a specific set of circumstances and conditions. The definition of earnings varies substantially among the plans, and the definition of the period over which the earnings are to be averaged also varies. Some plans that base benefits on career earnings, for example, include preparticipation service; others exclude such service. Some plans include premium pay and bonuses, among other forms of pay not directly related to an actual unit of time worked, as part of credited earnings; some do not. In counting service time, some plans include time out on layoff, disability, and during leaves of absence, while others exclude these periods. In addition, a few plans do not give workers either service or earnings credits for work performed after the worker has reached the plan's normal retirement age.

A few generalizations may be made about the effects of different types of benefit formulas—withstanding differences in the individual plan's definitions of earnings and service.<sup>5</sup>

1. Uniform benefit formulas provide proportionately higher benefits to workers with lower earnings than to workers whose earnings are at the upper end of the earnings distribution. Those that vary benefits solely on the basis of service also provide proportionately higher benefits to lower earners than to high earners with the same amount of service.

2. Formulas based on earnings and service pay greater benefits to the long-service high earnings worker than to the worker with less service and lower earnings. However, a worker with relatively low earnings can attain a benefit substantially

higher than indicated by his earnings level by continuing to work for a long period of time. Conversely, a worker with high earnings but with relatively short service will receive a proportionately reduced benefit.

3. Formulas that take earnings into account tend to produce higher benefits (for the same length of service and overall average career earnings) when terminal earnings are used in the computation than when average career earnings are used. Nevertheless, some plans using the career average may produce a higher level benefit for workers with identical earnings and service records because of a difference in the percentage applied to the earnings or the earnings level at which the plans are integrated with the Social Security system.

## Early retirement

Early retirement provisions allow eligible workers to retire before the normal retirement age and receive an immediate, reduced lifetime benefit. (See table 4.) Some plans permit the worker to defer receipt of his benefit until his normal retirement age when unreduced benefits are payable.

**MINIMUM REQUIREMENTS FOR EARLY RETIREMENT.** A worker must meet an age requirement, a service requirement, or both to retire under an early retirement provision. In addition, under many plans early retirement depends on the employer's

**Table 4. Selected characteristics of private pension plans with early retirement provisions,<sup>1</sup> 1969**

Characteristic	Percent of workers	
	In all plans	In plans with early retirement provisions
All plans.....	100	-----
Plans with early retirement provisions.....	87	100
Single-employer plans.....	66	76
Noncontributory.....	49	56
Contributory.....	17	20
Permitting early retirement:		
Solely at employee's option.....	47	54
With employer's consent.....	19	22
Multiemployer plans.....	21	24
Noncontributory.....	20	23
Contributory.....	1	1
Permitting early retirement:		
Solely at employee's option.....	20	23
With employer's consent.....	1	1
Plans without early retirement provisions.....	13	-----

<sup>1</sup> Characteristics relate to regular early retirement provisions.

approval. In some cases, the worker can be involuntarily retired. All plans examined in this study that had such special early retirement clauses also had regular early retirement provisions. Unless otherwise noted, all further discussion of early retirement excludes retirement under the special early clauses.

The most frequent service requirement for early retirement was 10 years, with 15 years almost as common. Overall, two-thirds of the workers covered by plans with early retirement could qualify with 15 or fewer years of service, and almost three-fourths of these after 10 years of service.

**BENEFITS PAYABLE UNDER EARLY RETIREMENT.** Reduced early retirement benefits were invariably payable immediately. However, under about two-thirds of the plans, covering about the same proportion of employees, the employee could elect to defer receipt of the benefit until normal retirement age. The following tabulation shows the percent of workers in plans with early retirement provisions and the distribution of workers in these plans according to the time at which benefits are payable:

	Benefit provision	Time at which benefit is payable
Plans with early retirement.....	87	100
Immediately only.....	32	37
Immediately or at age 65.....	22	26
Immediately or at any time up to age 65.....	33	37
Plans without early retirement.....	13	-----

The worker who chooses to retire early will receive a smaller benefit than if he remained in employment under the plan until the normal retirement age. For early retirement, the actuarial equivalent of accrued benefits was payable by about three-fourths of the plans, with slightly less than half the workers. Practically all the remaining plans approximated the actuarial equivalent by reducing benefits by a uniform percent for each month prior to the normal retirement age. A few large plans, chiefly in the communications and public utilities industry, provided an unreduced early retirement benefit. These plans, however, required long service—usually 30 years—and the employer's consent for such a benefit.

**SOCIAL SECURITY ADJUSTMENT OPTION.** Under this option, the worker's early retirement benefit is adjusted so that he receives a larger than com-

puted benefit before the receipt of social security payments, which he pays for by getting smaller benefits afterward. The private plan benefits are in amounts that, when added to the social security benefit, will constitute a uniform combined benefit throughout the pensioner's life.

A social security option was available in early retirement plans covering about one-third of the workers. Single-employer plans were somewhat more likely to offer this option than multi-employer plans, and social security options were considerably more prevalent in contributory than noncontributory plans. The following tabulation shows (1) the percent of workers in plans having early retirement provisions, and (2) within these early retirement plans, the percent of workers in plans which do or do not have social security options:

	Early retirement provisions	Total	With option	Without option
All plans .....	87	100	32	68
Single-employer .....	66	100	32	68
Multiemployer .....	21	100	30	70
Noncontributory .....	69	100	29	71
Contributory .....	18	100	40	60

**SPECIAL EARLY RETIREMENT.** Special early retirement provisions are found in approximately 6 percent of the plans, covering about 17 percent of the workers, and concentrated in single-employer, noncontributory plans in the manufacturing industries. They were most common in plans negotiated by the Auto Workers, Steelworkers, and Meat Cutters Unions. Under these

plans an employee may be retired early at the employer's request or under "mutually satisfactory conditions."<sup>6</sup> In other plans, workers whose employment is terminated because of the closing of a department or plant or who have been on long layoff may be eligible for special early retirement. The first of these circumstances apply particularly to plans in the transportation equipment manufacturing industry; the second is most prevalent in the primary metals and the food processing industries.

The minimum age and service requirements most frequently specified were age 55 and 10, 15, or 20 years of service. In the primary and fabricated metals industries most plans provide special early retirement if the combination of age (55 or older) plus service equals 70, or if age (under 55) plus service equals 80.

The majority of the employees were in plans providing double normal benefits until normal retirement age or until they were eligible for an unreduced social security benefit. Most of the remainder were in plans that provided the same benefit as for normal retirement, plus a supplemental amount that would be paid until they were eligible for an unreduced social security benefit. These supplemental amounts ranged from \$75 to \$130. A few plans provided either the same benefit as for normal retirement or slightly in excess of normal.

**Vesting**

Once a worker attains a vested right to a retirement benefit he has a nonforfeitable right to a

**Table 5. Provisions for vesting and early retirement in private pension plans by type of employer unit, type of vesting, and conditions for vesting, 1969**

Type of vesting and conditions for vesting	Percent of workers						
	Total	In single-employer plans			In multiemployer plans		
		All	With early retirement	Without early retirement	All	With early retirement	Without early retirement
All plans .....	100	71	66	5	29	21	8
Percent distribution .....	100	100	100	100	100	100	100
With vesting .....	77	87	90	43	51	64	15
Deferred full .....	67	79	82	39	37	47	9
Any separation .....	57	67	69	38	32	41	8
Involuntary separations <sup>1</sup> .....	10	12	13	2	5	7	1
Deferred graded .....	10	8	8	3	13	16	6
Any separation .....	8	6	6	3	12	16	4
Involuntary separation <sup>1</sup> .....	2	2	2	—	10	1	2
Without vesting .....	23	13	10	57	49	36	85

<sup>1</sup> Under the regular vesting provisions.

benefit when he reaches retirement age, regardless of where he may be at that time. The amount of the benefit to be paid at that time, however, usually depends on the terms and conditions of the plan existing at the time the benefit right was acquired. Rarely, if ever, are vested benefit rights adjusted upward as changes are made in the years between the acquiring and the exercise of the right. Benefits paid workers who attained a vested right but who elected to continue to work under the plan, however, are paid in accordance with the plan provisions in effect at the time they actually retire.

Vesting provisions are most prevalent in the manufacturing, communication and public utilities, and the finance, insurance, and real estate industries where about four-fifths of the covered workers are in plans with such provisions. Vesting is least common in the mining, transportation, and service industries where, respectively, only about 34 percent, 46 percent, and 53 percent of the covered workers can ever obtain a nonforfeitable right under the vesting provision of their present plans. Among manufacturing industries, more than 90 percent of covered workers in the durable goods sector, but only about 73 percent of participants in the nondurable goods sector have vesting provisions in their pension plans.

**NATURE OF VESTING.** Three types of vesting provisions are found in pension plans: (1) Immediate full vesting; (2) deferred full vesting; and (3) deferred graded vesting. (See table 5.) Immediate full vesting, under which benefits are vested as soon as they are earned, covers less than 1 percent of all active workers under private pension plans.

For purposes of this article, such plans have been grouped with those providing deferred full vesting.

Deferred full vesting provisions postpone all vesting until specified age and service requirements are met. They then provide eligible workers with a nonforfeitable right to all benefits then accrued and an immediate right to all benefit rights in the future as soon as they accrue. Deferred full vesting is provided by plans covering 9 out of 10 of the workers in plans with a vesting provision. The other tenth of the workers participated in plans that had deferred graded vesting provisions. Under these provisions a participant acquires the right to a specified percentage of his accrued benefits when he satisfies the minimum age and service requirements. The percentage vested under these plans continues to increase as additional service requirements are met until finally all accrued benefits are vested; then all benefits become vested as they accrue.

**REQUIREMENTS FOR VESTING.** Minimum age or service requirements, or both, must be met by the worker to qualify for vesting and, in some plans, vesting may be conditioned upon the type of termination—whether the worker was laid off or quit. In particular, some plans in the primary and fabricated metals industries grant nonforfeitable benefits rights under the vesting provisions only to those workers whose employment was severed because of layoff or other factors beyond the employee's control. In addition, workers under such plans typically receive vested rights only if they remain available for recall for 2 years. Overall, involuntary termination is requisite to

**Table 6. Earliest age and associated service at which workers under full vesting and workers under graded vesting acquire a nonforfeitable right to all accrued benefits, private pension plans, 1969**

Minimum service requirement <sup>1</sup>	Percent distribution	Percent of active workers in plans with—						
		Total	No age requirement	Age requirement				
				Total	40 or less	Over 40 and under 50	50 and under 55	55 and over
All plans with vesting.....	100	100	51	49	25	5	11	8
Less than 5 years.....	1	100	82	18	12	—	6	—
5 to 10 years.....	45	100	74	26	17	5	3	2
11 to 15 years.....	39	100	26	74	44	5	19	7
16 to 20 years.....	12	100	43	57	2	9	16	29
More than 20 years.....	3	100	66	34	1	2	13	19

<sup>1</sup> The term service as used in this table is defined to include preparticipation service. The distribution includes 1,010 plans with 2.3 million workers that provide vested rights as shown in the table only in the event of involuntary separation (including continuous layoffs); almost all of these plans also provide for the attainment of non-

forfeitable rights, prior to normal retirement, in the event of voluntary separation. In such cases, the eligibility requirements are typically more stringent than those for involuntary separation.

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



**Table 7. Earliest age and associated service for full vesting in private pension plans that have deferred graded vesting, 1969**

Minimum service requirement <sup>1</sup>	Percent distribution	Percent of active workers in plans with—						
		Total	No age requirement	Age requirement				
				Total	40 or less	Over 40 and under 50	50 and under 55	55 and over
All plans with deferred graded vesting.....	100	100	63	37	2	5	5	25
Less than 5 years.....	(?)	100	86	100	14	14	—	—
5 to 10 years.....	5	100	46	54	3	7	3	42
11 to 15 years.....	54	100	77	23	2	2	10	9
16 to 20 years.....	25	100	92	8	—	2	6	1
More than 20 years.....	16	100	—	—	—	—	—	—

<sup>1</sup> The term service as used in this table is defined to include preparticipation service.  
<sup>2</sup> Less than 0.5 percent.

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

the attainment of a vested benefit right under the vesting provision in plans with about 16 percent of all covered workers under private pension plans.

In general, plans providing for deferred full vesting have less stringent requirements for full vesting than do plans that provide for the gradual attainment of nonforfeitable rights to all accrued benefits. However, graded vesting plans often permit the attainment of some right to part of the accrued benefit at a much earlier point in the worker's career than is usually the case in plans providing for deferred full vesting.

About 44 percent of the workers were in plans that required 10 years of service to qualify for deferred full vesting. Four out of 5 workers, in plans with such vesting provisions, would qualify for deferred full vesting after 15 years of service or less. The heavy concentrations of workers in plans that required 10 or 15 years of service to qualify reflect the vesting provisions in the transportation equipment, primary metal and fabricated metal manufacturing industries plans.

In plans with about half the workers covered by deferred full vesting provisions, there was no age requirement. Under these plans all accrued benefits were vested when the worker met the plan's service qualification—usually 10 years. In plans covering about one-sixth of the participants, the service requirement for vesting, without regard to age, was 15 years.

Minimum age requirements ranging from 40 to 55 were specified in the remaining plans with deferred full vesting. A minimum age of 40, with 15 years of service, was the requirement most frequently stipulated. (See table 6.) An age requirement of 55 or over was stipulated in plans covering about 9 percent of the workers; however, these high age plans almost invariably provide for early

retirement, with the employer's consent, at the same age. Such plans probably reflect the impact of the 1957 Internal Revenue Service regulations (57-163 and 58-151) which in essence require, for purposes of tax qualification, that plans requiring employer consent for early retirement also had to provide for deferred full vesting of all accrued benefits at the earliest point where employer discretion could affect the worker's retirement rights.

Age and service requirements for the attainment of any right under deferred graded vesting (table 7) are typically more liberal than for deferred full vesting, but under these plans, as previously noted, only part of the worker's equity is initially vested. In plans covering almost three-fourths of the workers whose pension plan provided for graded vesting, half of the accrued benefit or more is initially vested. Moreover, about 30 percent of the workers in plans with grading could obtain vested rights to all accrued benefits by age 40 with 15 years of service. In contrast, almost 70 percent of the workers covered by plans providing for deferred full vesting would have earned a nonforfeitable pension right under the vesting provision of their plan if they had 15 years of service by age 40.

The percent of accrued benefit initially vested under graded plans varied from 5 percent to 75 percent. The most frequent amount vested was either 25 percent or 50 percent of the accrued benefit. To become fully vested under graded plans usually required longer service than under deferred full vesting, often as much as 20 or 25 years of service.

Receipt of the vested benefit was delayed in two-thirds of the plans with over half the workers until normal retirement age. However, in plans with 43 percent of the workers, employees had the

option of receiving their vested benefit at either the early retirement age in a reduced amount or at the normal retirement age in full. Employees in

the remaining plans could elect to receive an unreduced benefit anytime after the early retirement age. □

—FOOTNOTES—

<sup>1</sup> For purposes of this study, pension plans are defined as those plans that provide cash income to qualified retired workers for life. The periodic amount to be paid, by plans that qualify under this definition, can be calculated in advance. However, the calculation may be subject to change because of changes in either or both the plan and the individual's earnings or service.

Profitsharing, stock bonus, vacation and savings, and other plans that make lump-sum payments to retiring workers and other plans that do not provide for the periodic payment of a sum ascertainable prior to retirement for the balance of the worker's life were not considered to be pension plans and were therefore excluded from the study. Also excluded were all plans covering fewer than 26 workers and plans of government agencies and nonprofit organizations (other than labor unions, which were included).

The study is based on the reports and documents filed with the U.S. Department of Labor pursuant to the Welfare and Pension Plans Disclosure Act (WPPDA) by the administrators of private pension plans covering 26 active and retired participants or more. Two systematically stratified probability samples of these plans were drawn. One sample, stratified by industry division and size of plan, by number of active and retired participants, was drawn from a list of all retirement plans that had filed financial reports (form D-2) in 1964. A second sample was drawn from the retirement plans that had filed plan descriptions (form D-1) by December 1967, but had not filed a financial report in 1964.

All known multiemployer plans not included in the first sample were extracted from the second stage listing and separately sampled. These plans were stratified on the basis of the latest available coverage statistics, and the sample was selected with probability proportion to size.

In all, some 1,433 plans were studied. Data for each sample plan were appropriately weighted in accordance with the plan's probability of selection. The data presented are, therefore, estimates for all private pension plans with descriptions (D-1 reports) on file in December 1967.

Data on plan coverage were obtained from the 1967 (D-2) financial reports. These reports were the most current consistently available in mid-1969 when the file was examined. The plan provisions analyzed were those in the Department of Labor's files during mid-1969. There is a 160-day time lag between the date that a plan change is introduced and the required date of filing. As a result, in order to reflect the current provisions, some

supplementary sources were also utilized. In all the larger situations, as well as in others where plan changes were known to have occurred since the date the last D-1 form containing plan descriptions was filed, the latest plans were obtained from the parties. These up-to-date versions were then used in this study in place of those in the disclosure file.

<sup>2</sup> Estimates based on the sample of plans studied in 1969 indicated that slightly more than 19.5 million active workers were covered by pension plans in scope of this study during 1967, the latest year for which actual coverage statistics were available when this study was conducted. Coverage estimates as of the end of 1969 were projected from 1967 on the basis of the average rate of growth during the 1961-67 period. Estimates for the beginning of the decade were developed by negatively applying the same factors to the 15.8 million coverage statistic for 1961, the earliest data pertaining to only those plans meeting the definitions used in this study.

<sup>3</sup> *Labor Mobility and Private Pension Plans* (BLS Bulletin 1407, 1964).

<sup>4</sup> Those whose pension rights are forfeited because they severed their employment, and those whose employment is involuntarily terminated, prior to the attainment of a nonforfeitable right do, however, have a right to the return of their contributions, if any, to the pension fund.

Retirement at specified ages is mandatory in some plans. In early 1965, plans covering about two-thirds of the active covered workers had a mandatory retirement provision. About two-thirds of these workers were in plans that compelled retirement at age 65, the others were in plans specifying an older mandatory retirement age. For detail, see *The Older American Worker: Age Discrimination in Employment—Research Materials*. Report of the Secretary of Labor to the Congress under Section 715 of the Civil Rights Act of 1964 (Washington, 1965).

<sup>5</sup> These and other relationships between pension plan benefit formulas can be examined by applying each plan's formula to a standard set of earnings and service assumptions. This arithmetic technique, which places all plans on a common footing so that prevailing differences and central tendencies are revealed, is being used to compare the plans included in this study. The results of this comparison will be presented in the detailed bulletin containing all of the data resulting from this study.

<sup>6</sup> In such cases, the employer's and the employee's consent is required.

Since 1936, the  
National Mediation Board's  
1,465 airline mediation cases  
have required only 33  
presidential emergency boards

MICHAEL H. CIMINI

# Emergency boards in the airline industry, 1936-69

ENACTED IN 1926, with the active support of both management and labor, the Railway Labor Act was designed to prevent work stoppages by encouraging the parties to conclude and maintain agreements through collective bargaining. The effectiveness of the act in the majority of airline and railroad industrial relations disputes was demonstrated in the years before World War II.

In recent years, however, the law's procedures have been criticized by practitioners and students of collective bargaining. It has been argued that the Railway Labor Act, as implemented by the National Mediation Board—the agency charged with its administration—has encouraged labor and management to bargain in a perfunctory manner, to relinquish their rights and duties to resolve disputes on their own, and to depend on Government intervention for the solution of their disputes. It has been alleged that the Executive Branch, acting under political pressures, has, at times, intervened needlessly in airline and railroad disputes.

To assess the impact of the act upon industrial relations in the airline industry, the author examined and analyzed both published and unpublished records of the National Mediation Board. This article summarizes the airline industry's experience under the Railway Labor Act's emergency dispute procedures between 1936 and 1969, with special emphasis on emergency boards, as a means of evaluating the repeated criticisms of the act.

## Procedural aspects of the act

The Railway Labor Act requires the parties to follow step-by-step procedures, from the initial

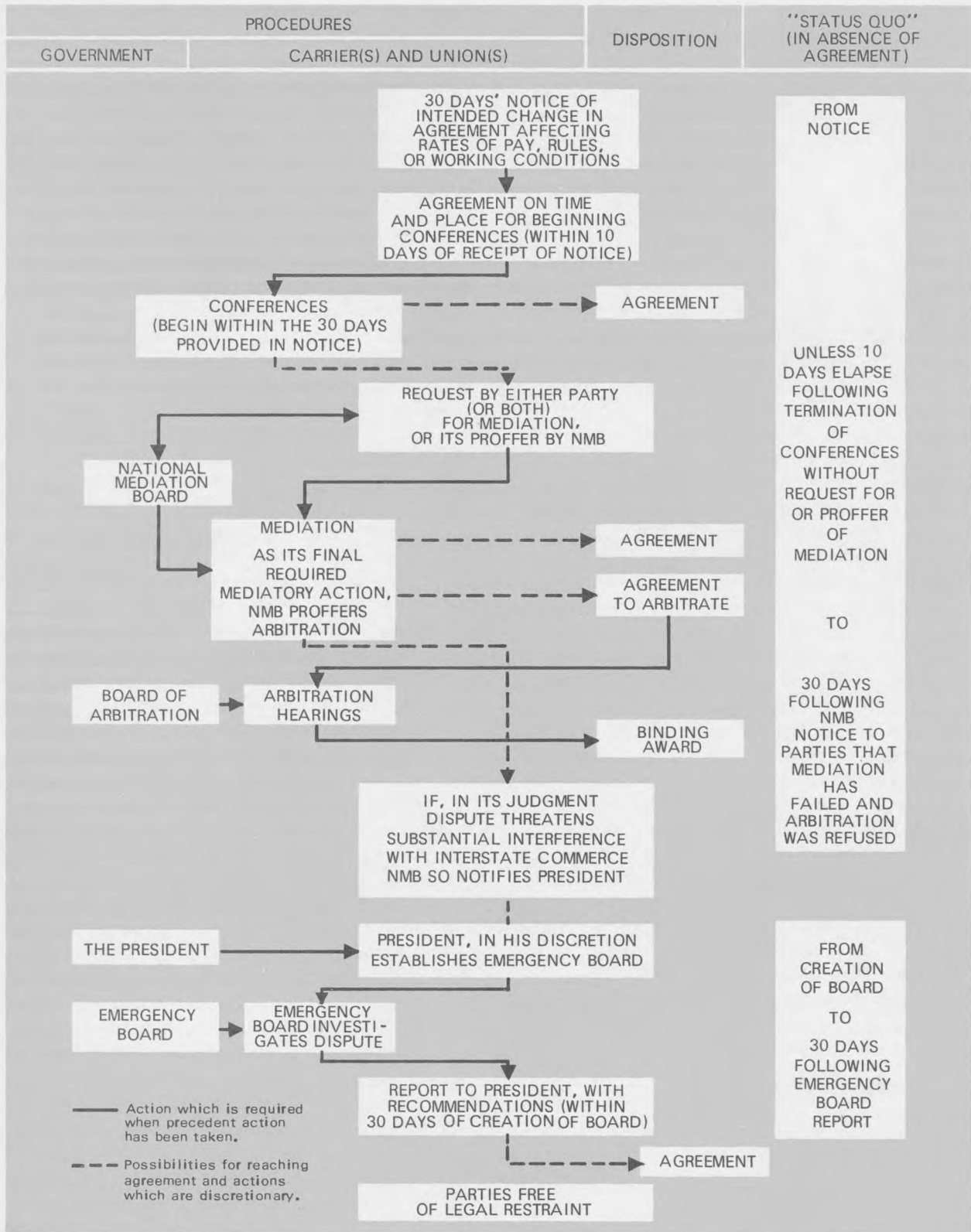
notice of intention to change the terms of an agreement to the last step, which leaves the union free to strike or the employer free to lock out his workers. (See chart 1.) The procedure is set in motion when a "Section 6" notice—a declaration of intention to change the collective bargaining agreement—is served. A status quo period prohibits changes in the terms and conditions of employment until the parties reach agreement, or all the required procedures of the act have been exhausted, or a period of 10 days has passed after the termination of discussions without a request for or an offer of the Board's assistance. The parties are expected to negotiate until an agreement is reached or an impasse develops. If the parties can not reach agreement in direct negotiations, one or both of the parties may request the mediatory assistance of the Board; or, should the facts warrant it, the National Mediation Board may offer its assistance.

As one of its last formal obligations, the Board may request the parties to submit their dispute to binding arbitration, when mediation is unsuccessful. If arbitration is refused, the Board is required to formally notify both parties of its failure to reconcile their differences. Again, a status quo period is instituted, and neither party can make an alteration in the terms of the collective bargaining agreement for 30 days from the date of notice unless, in the interim, arbitration is agreed upon or an agreement is reached by the parties. If these measures fail, an emergency board may be established under Section 10 of the act. Action under this section is taken if, in the opinion of the Board, an actual or imminent strike arising out of an unresolved dispute "threatens to substantially interrupt interstate commerce." The Board so notifies the President, who may, as a last resort under the act, establish an emergency board to examine the nature of the issues and to make recommendations concerning the dispute.

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Chart 1. Collective bargaining procedures, and "status quo" periods, under the Railway Labor Act



NOTE: All time periods may be extended by agreement.

## Airline emergency boards

Since 1936, the Board has dealt with 1,465 airline mediation cases; and only 63 required this final step of the procedure.<sup>1</sup> In total, 33 boards were created, two-thirds between 1955 and 1969 but none during the last 3 years. (See table 1.) The incidence of airline emergency boards over time was irregular, most occurring in scattered clusters.

Between May 1946 and November 1954, 13 emergency boards were established. Fourteen boards, created between January 1958 and March 1962, coincided with the introduction of the jet plane and centered on work rules for ground employees and manning issues for flight deck personnel as the principal subjects in dispute. In the last seven airline emergency boards, which were confined to ground crafts, wages was the prime issue.

The use of emergency boards in the past 20 years has been depicted as a "proliferation" of such procedures and a domination of labor-management negotiations in the industry by the Government, contrary to the original intent of the act. Critics have frequently charged that the Board has pursued a policy of automatically notifying the President of almost any dispute which was unsettled after it had intervened, the only criterion being whether a work stoppage was imminent. Since the airline unions routinely set a strike date when an impasse is reached in negotiations or in mediation conducted by the Board, the occurrence of "imminent work stoppages" has been extremely high. Consequently, it appears that the effectiveness of the emergency board procedures as a last resort has been reduced and the parties have integrated this procedure into their collective bargaining strategy.

If this lessening of effectiveness has occurred, its cause lies, perhaps, in the evolution of the act. Originally, the act was limited exclusively to railroads, an industry in which collective bargaining relationships were well-structured and one in which a work stoppage, even on smaller lines, could entail a substantial impact on an area. The law was phrased to reflect the nature of the industry and its relative importance vis-à-vis the national economy as it existed at the time of passage in 1926. Thus, Section 10, 1st, and Section 2, 1st, referred to disputes which "threaten substantially to interrupt interstate commerce to a degree such as to deprive a section of the country of essential transportation service" and to the settlement of all

disputes "in order to avoid any interruption to commerce or to the operation of any carrier. . . ." Considering the size of some of the smaller airline carriers and the Civil Aeronautics Board practice of awarding two carriers or more access to major routes, as well as the existence of other means of transportation, a strict interpretation of Section 2, 1st, may not have been necessary to protect the public interest.

In 1966, former Secretary of Labor W. Willard Wirtz refused to classify as a national emergency the labor-management controversy which interrupted about 50 percent of domestic trunkline air service and which caused the creation of Emergency Board 166. This particular controversy probably had the greatest economic impact of any airline emergency board dispute, and it may serve as a measure of the economic impact of the other 32 cases.

Most emergency boards involving a single carrier and a single union (especially those in the late 1940's and early 1950's) were created to resolve controversies which may not have fulfilled the conditions of threatening to substantially deprive a section of the country of essential transportation services, except in the narrowest sense. For instance, it would seem that when the Brotherhood of Railway Clerks struck Braniff (a domestic trunkline carrier) in late 1951, the dispute did not threaten to substantially interrupt interstate commerce or deprive a section of the country of essential transportation services for the following reasons: The clerks are not essential personnel in the same sense that mechanics and flight deck personnel are; the major airline routes assigned to Braniff were also flown by other carriers; and other forms of transportation were available to provide essential services to the affected areas. The Mediation Board's hesitancy, apparent since the mid-1960's, to recommend the appointment of emergency boards for some single carrier disputes was probably a recognition of the need to reverse this policy.

## Unions and carriers involved

The requirement that boards be appointed to consider disputes that may substantially interrupt interstate commerce has limited to a small proportion the U.S. scheduled air carriers and major airline unions involved in emergency procedures. In most cases, emergency boards were appointed by the President to aid in disputes between one

Table 1. Airline emergency, boards, 1936-69

Emergency board number	Union(s)	Carrier(s)	Major craft involved		Major issues				"Section 6" notice date
			Flight	Ground	New agreements	Wages	Rules	Other	
168	TWU	Pan American		Mechanics and related		X			May 31, 1966
167	TWU	American		Mechanics and related		X			Mar. 1, 1966
166	IAM	Eastern National Northwest TWA United		Mechanics and related		X			Oct. 1, 1965
158	IAM	Braniff Continental Eastern National Northwest TWA		Mechanics and related		X			Oct. 31, 1962
156	IAM	United		Mechanics and related		X			May 1, 1962
152	TWU	Pan American		Mechanics and related		X			(4)
149	TWU	American		Mechanics and related		X			(Aug. 10, 1961) <sup>5</sup>
146	FEIA	TWA	Engineers				X		Oct. 26, 1960
144	FEIA	Eastern	Engineers				X		Feb. 8, 1960
143	ALPA	Pan American	Pilots				X		Jan. 2, 1960
142	ALPA	TWA	Pilots				X		Aug. 30, 1960
140	TWU	TWA	Navigators				X		May 31, 1961
136	IAM	Northwest	Engineers				X		(Feb. 9, 1960) <sup>5</sup>
135	FEIA	Pan American	Engineers				X		May 31, 1960
128	BRC	Pan American		Clerical and related			X		Mar. 8, 1960
125	TWU	Pan American	Service				X		Oct. 9, 1959
124	ALPA	American	Pilots				X		Oct. 30, 1958
123	FEIA	TWA	Engineers				X		Jun. 21, 1957
		Eastern							Sep. 23, 1957
		TWA							Aug. 1, 1957
		United							Aug. 1, 1957
122	IAM	Northwest Northeast Capital National		Mechanics and related		X		X	Aug. 30, 1957
		Eastern							Aug. 30, 1957
		Capital							Jul. 30, 1957
		National							Aug. 30, 1957
		Eastern	Pilots				X		Aug. 29, 1957
121	ALPA	Eastern	Engineers				X		Mar. 27, 1967
120	FEIA	Eastern	Engineers				X		Feb. 26, 1957
		Capital							
		National							
108	IAM	Northwest TWA United Eastern		Mechanics and related		X	X		May 26, 1954
103	FEIA	United	Engineers			X			Dec. 26, 1951
102	IAM	Northwest	Engineers			X			Sep. 21, 1951
101	FEIA	TWA	Engineers			X			Mar. 28, 1952
100	IAM	Northwest	Engineers					X	Mar. 11, 1950
99	TWU	Pan American		Mechanics and related		X			Oct. 31, 1951
94	ALPA	American	Pilots			X			May 31, 1949
90	BRC	Braniff		Clerical and related			X		Apr. 10, 1949
67	IAM	Northwest		Mechanics and related		X			May 28, 1948
62	(ALPA IAM)	National	Pilots					X	(4)
38	IAM	National		Clerical and related	X				May 26, 1947
36	ALPA	Northwest		Mechanics and related		X		X	Mar. 1, 1946
		TWA <sup>10</sup>	Pilots			X	X		(4)

1 Includes manning requirements, work rules, and technological innovation issues.  
 2 Did not respond to recommendations.  
 3 No formal emergency board report, settled directly by the parties.  
 4 "Section 6" filing date not available.  
 5 Dispute in which 2 mediation cases involving the same parties were considered jointly.  
 6 No specific recommendations on economic issues.  
 7 No settlement; bargaining agent changed.  
 8 Board recommended resuming neutral fact finding, with no recommendations on specific issues, except that settlement should not conflict with Feinsinger Commission's recommendations.  
 9 Partial acceptance (rejection).

carrier and one union, usually a major airline union and a domestic carrier. With the exception of one emergency dispute, none involved more than one union; and only five were concerned with more than one carrier—four of which involved the International Association of Machinists and Aerospace Workers.

Another prominent structural characteristic of emergency board participation was its concen-

tration by economic size. All the airlines involved in these disputes were either domestic (trunk and local) or international carriers. Of the 21 major domestic and international airlines, American, Eastern, United, and TWA constituted slightly under one-half of carrier participation in such disputes. When Pan American and Northwest are added, these six airlines accounted for approximately three-fourths of the carriers involved in

Duration under act (calendar days)	Work stoppages				Emergency board recommendations					Emergency board number
	Number of workers involved (thousands)	Mar.-days idle (thousands)	Occurred		Response of parties			Settlement deviated from recommendations on:-		
			Before emergency board created	After emergency board created	Rejected by		Accepted by both parties	Economic issues	Job security issues <sup>1</sup>	
					Union	Carrier				
182					X			X		168
179					X	(2)		X		167
277	71	1,922	X		X			X		166
436					(3)	(3)			(3)	158
231					X			X		156
163					(3)	(3)			(3)	152
225					(3)	(3)			(3)	149
582					2 <sup>6</sup> X	(3)				146
842	17	912	X		X	(3)			(7)	144
586					8 X	(3)			X	143
502					(3)	(3)			X	142
186					(3)	(3)			X	140
444	4	210	X		(3)	(3)			X	136
499	20	100	X		X					135
266					X			X		128
258					X			X		125
469	21	118	X		(10)	(10)			(11)	124
335					(3)	(3)				123
	14	12 371	X							
	14	141	X							
434					X			X		122
	7	185	X							
511								X	X	121
359	14	12 371	X		X			X	X	120
204					(3)	(3)			(3)	108
402	(12)	1	X				X	X		103
372					X			X		102
184					X			X		101
802					(3)	(3)			(3)	100
139	4	8	X		(3)			X		99
754					X			X		94
538						X				90
316					(3)	X			(3)	67
(14)	(13)	30	X	X		X			X	62
439	1	83	X	X	(10)	(10)		(10)		38
189	2	3	X		(15)	(15)				36
252	13	244	X	X	X			X		

<sup>10</sup> No recommendations on specific issues.  
<sup>11</sup> Emergency board recommended that the parties bargain in good faith, but a strike occurred shortly thereafter.  
<sup>12</sup> Number of workers involved and man-days lost include IAM and FEIA strikes at Eastern. BLS counted it as one strike.  
<sup>13</sup> Less than 500.  
<sup>14</sup> No figure given because major issue was a grievance; inclusion would bias results because regular procedures, including a "Section 6" notice, were not required.  
<sup>15</sup> Information not available.  
<sup>16</sup> Includes 12 other carriers; TWA was the major case.

SOURCES: National Mediation Board, Bureau of Labor Statistics, Civil Aeronautics Board, and presidential emergency board reports.

the disputes. Only 5 of the 14 unions that represent a significant number of airline employees were involved in the emergency board procedures: the Machinists on 11 occasions; Air Line Pilots Association, Flight Engineers International Association, and Transport Workers Union of America, 7 times each; and the Brotherhood of Railway and Steamship Clerks, Freight Handler, Express and Station Employees, twice.

The ability of flight personnel to close down a carrier's operations (because of the essential nature

of the occupation and the economic regulations of the Civil Aeronautics Board) is reflected in the number of emergency cases in which they participated. Eighteen of the 33 emergency boards involved flight crafts only, a disproportionate participation, considering their relative numerical importance in the industry. Another 10 dealt exclusively with ground crafts, and five included both of these groups. Three occupational groups participated in the majority of the boards: the pilots, the flight engineers, and the mechanics.

Since 1955, these three groups increasingly came before emergency boards, as shown below:

Major group involved in emergency board	1936-69 <sup>1</sup>	1955-69 <sup>1</sup>	1936-54 <sup>1</sup>
<b>Flight personnel:</b>			
Pilots.....	7	4	3
Flight engineers.....	10	6	4
Other flight personnel.....	2	2	0
<b>Ground personnel:</b>			
Mechanics.....	12	9	3
Other ground personnel.....	3	1	2

<sup>1</sup> Fiscal year, based on date emergency board was created.

SOURCE: National Mediation Board.

Except for four emergency boards, the involvement of other ground crafts—stock and stores and clerical and related—in this procedure was incidental to their representation by the Transport Workers and the Machinists and to the unions' practice of negotiating concurrently for the various classes represented by them. Similarly, in only two cases were flight personnel other than pilots or flight engineers directly involved in national emergency disputes; and both crafts (flight navigators in Emergency Board 140 and flight service employees in Emergency Board 125) were organized by the Transport Workers. In four other instances of participation, these flight service personnel were involved because of their organization by the two unions and their common negotiations for the various crafts represented.

## Issues

A distinct pattern of major issues has precipitated emergency disputes. Major issues were fairly evenly divided between wages (16 cases) and rules (13). Both issues came before emergency boards twice. Of the two remaining disputes, one involved the revision of the entire agreement, and one dealt with the negotiation of an initial agreement and miscellaneous issues. In the late 1940's to early 1950's, which were characterized by a rapidly rising cost of living and continuous aircraft technological change, wages predominated in emergency board disputes. With the advent of the jet plane, during the late 1950's and early 1960's, rules became the prime issue between the parties, especially for flight personnel. By the mid-1960's, the emphasis reverted to economic issues, which generated several conflicts involving ground employees. Flight deck personnel (pilots and flight engineers) tended to participate in emergency boards dealing primarily with demands for rule changes. As the following tabulation shows,

ground employees were involved in a majority of boards facing demands for changes in pay.

	1936-69	1955-69	1936-54
<b>New agreement:</b>			
Flight.....	0	0	0
Ground.....	1	0	1
<b>Wages:</b>			
Flight.....	6	0	6
Ground.....	13	10	3
<b>Rules:</b>			
Flight.....	12	11	1
Ground.....	3	2	1
<b>Miscellaneous:<sup>1</sup></b>			
Flight.....	1	0	1
Ground.....	2	1	1

<sup>1</sup> Apparent discrepancies are explained by multiple issues and crafts involved in Emergency Boards 36, 38, 62, 67, 99, 108, and 122.

SOURCE: National Mediation Board.

Another important characteristic of the disputes was the disparity in duration,<sup>2</sup> from the Section 6 notice to 30 days after the emergency board report, by major issue. Cases involving rule issues were on the average longer in duration than those dealing with rates of pay, 471 days compared to 269 days.

For all emergency boards, from the date of the "Section 6" notice to 30 days after the issuance of the emergency board report,<sup>3</sup> the average duration was 381 days, with an array ranging from 109 days in Emergency Board 99, which dealt with adjusting wages, to 812 days in Emergency Board 144, which involved rule changes. This long duration was primarily the result of three factors: First, under the provisions of the act, no time limitations were placed on mediation. Defined as the time span between the initiation of the mediation sessions by the Board and the offer of arbitration, the average duration of mediation activities was 74 days, the longest period covering 338 calendar days.<sup>4</sup> Second, although Section 10 of the act established a time limit for the emergency board procedure (30 days from the date of the Board's creation to the date of its report), with the consent of both parties, the Board can notify the President that an extension is necessary which he, in turn, is authorized to grant.

As measured by the time span between the establishment of the emergency board and its report, the average duration of an airline emergency board hearing was 75 days, the longest 200 days.<sup>5</sup> Of the 12 prolonged emergency board hearings (those requiring more than 60 days), the majority were concerned with flight personnel groups asking for rule changes. Third, too often the parties



contributed to the duration by bringing issues before the Board on which they had spent little time bargaining, as demonstrated by this statement of the National Mediation Board:

In the handling of mediation cases the following situations constantly occur: One is the lack of sufficient and proper negotiations between the parties prior to invoking mediation . . . in other instances prior to invoking the services of the Board, the parties have only met in brief session without a real effort to resolve the dispute or consideration of alternative approaches to the issues in dispute . . . Frequent recesses of this nature (due to the two above problems) do not permit a prompt disposition of the dispute as anticipated by the act . . . In other instances mediation proceeds for only a short time before it becomes apparent that the designated representative of one or both sides lacks the authority to negotiate the dispute to a conclusion . . . Another facet of this problem is the requirement that an agreement which has been negotiated by the designated representatives must be ratified by the membership of the organization. Failure of the employees, in some instances, to ratify the actions of their designated representatives casts a doubt on the authority of these leaders and a question as to the extent to which they can negotiate settlements of disputes. . . .<sup>6</sup>

### Refusals to arbitrate

As noted earlier, the Board has the option under the law to suggest that the parties submit the dispute to arbitration. Mediation cases culminating in emergency boards were closed when carriers rejected arbitration in five cases (15 percent of the total), unions on 22 occasions (67 percent), and both parties in six instances (18 percent). In no case did both parties agree to submit the dispute to arbitration.

As early as 1941, a formal censure of the parties' tendency to decline arbitration, the next to last step left to the parties to agree on a method of settlement, was recorded by the Board and was reiterated almost every year since then in the Board's *Annual Report*: "The Board has always felt that arbitration should be used by the parties more frequently in disposing of disputes which have not been settled in mediation . . ."<sup>7</sup> Up until the 1950's, the carriers were inclined to reject the offer of arbitration; but since then, the unions have usually refused the offer.

### Emergency board recommendations

The Railway Labor Act does not compel the parties to reach an accord; rather the act places maximum reliance on self-determination by labor

and management. While the right to strike is an integral part of this public policy, the parties are required to adhere to a step-by-step process during which the nature of the dispute and the merits of the opposing claims would be made public. The assumption in the law was that this type of disclosure would generate public pressures that contribute to a "just" and "equitable settlement."

Of the 23 substantive and 3 less detailed emergency board recommendations that were produced, the vast majority were rejected by one or both parties.<sup>8</sup> In fact, labor and management accepted the boards' specific recommendations only twice: the reduction to a three-man crew in the Air Line Pilots Association-Eastern dispute in 1958 (Emergency Board 121) and the pay increase and retroactive decisions in the Flight Engineers International Association-United controversy in 1953 (Emergency Board 103).<sup>9</sup> National Mediation Board, Civil Aeronautics Board, and other government records indicate that on 16 occasions airline unions rejected the boards' recommendations; and, in two instances, airline carriers acted similarly. Unions' responses were partially negative on five other occasions, and managements' on four occasions.<sup>10</sup> Flight groups accounted for 13 rejections (including four partial rejections), and ground personnel, for eight rejections (including one partial rejection).

Thus, the pressure of public opinion was not adequate to force the parties to accept a board's recommendations, nor was voluntary compliance common. As early as 1951, the Board recognized the increasing predisposition of the unions to reject emergency board recommendations, an action contrary to the anticipated operation of the act. To explain this tendency, the Board argued that the complicated and technical issues precipitating these disputes were given little publicity and beyond that they were somewhat incomprehensible to the public.<sup>11</sup>

In no case did the parties completely repudiate the emergency boards' recommendations or reach a settlement entirely outside of those suggestions. At various times, the boards' recommendations served as a basis for eventual agreements without interruption of service. For example, in Emergency Board 123, the parties (FEIA and TWA) implemented the recommendation of a reduction to a three-man jet crew, with flight engineers having prior rights to the 3d seat and eligibility for training at company time and expense.

At other times, the parties materially changed the recommendations in their final agreements, such as, in the settlement between the Machinists' flight engineers and Northwest (Emergency Board 102) in which the parties substituted a monthly base pay with additional compensation based on hours, miles, and gross weight for the board recommendation of an increase in the existing flat monthly salary based on longevity.

Even when the boards were unsuccessful in reconciling the parties' differences, they did narrow the scope of the dispute so that the parties were able to effect a settlement in less time and with less interruption of airline services. For instance, in Emergency Board 90 some rule proposals were withdrawn or agreed upon during the hearings.

Except for Emergency Board 124, in which recommendations on specific issues were not issued, all post-emergency board strikes were disputes in which one party rejected the recommendations entirely. No post-emergency board strikes occurred in situations in which partial rejections were registered.

### Methods of settlement

Over the 34-year period, few emergency board reports have served as a basis for quick settlement<sup>12</sup> of airline disputes. Even after the emergency boards' appointments and the issuance of their reports, the National Mediation Board generally reentered the case, offering its mediatory assistance and the use of arbitration, as evidenced by the number of mediation and arbitration agreements consummated by the parties. The principal method of settlement was ascertainable for 31 emergency cases. Of these, 10 accords were reached by mediation, 6 by arbitration, and 14 by the parties directly.<sup>13</sup> Flight groups accounted for five of the arbitration agreements, four of which concerned rules and the fifth, rules and wages. Of the 15 party agreements, 8 were signed by flight personnel, 5 by ground classes, and 2 by both. All 5 party agreements dealing with rules were consummated by flight personnel. Ground employee groups were involved in seven wage settlements, including one signed by both flight and ground crafts. One-half of the mediation agreements, the majority dealing with wages, were secured by flight personnel.

During the 1936-69 period, as the following tabulation indicates, labor and management were

more inclined to dispose of emergency board disputes by negotiated agreements than the other two methods of settlement. During the 1955-69 period, the parties increased their reliance on arbitration agreements rather than on direct negotiations.

	1936-69	1955-69	1936-54
Number, total.....	30	21	9
Arbitration agreements.....	6	5	1
Mediation agreements.....	10	7	3
Party agreements.....	14	9	5
Percent, total.....	100.0	100.0	100.0
Arbitration agreements.....	20.0	23.8	11.1
Mediation agreements.....	33.3	33.3	33.3
Party agreements.....	46.7	42.9	55.6

### Disposition

Of the 33 emergency boards, six were disposed of by the parties, with or without the aid of the Board, either before board members were appointed or before a formal report was issued. All six were settled without a strike, three with the mediatory assistance of the Board. Except for one (Emergency Board 100), these boards involved ground employee groups, organized by the Machinists and Transport Workers, with rates of pay as the principal subject in dispute.

The remaining 27 emergency board disputes, 17 of which involved flight employees, were settled after a formal emergency board report. Of these 27 boards, approximately one-half were concerned with wages and one-half with rules. Following the boards' reports, eight of the above 27 post-emergency settlements were preceded by a work stoppage. Seven of these were primarily concerned with the actual or anticipated effects of technological changes on wages and work rules. Ten strikes were called by airline employees participating in these eight emergency boards (two in Emergency Board 62 and three in Emergency Board 122, one of which also involved the parties in Emergency Board 120). Moreover, six work stoppages occurred prior to the creation of an emergency board,<sup>14</sup> a legal course of action once a 30-day status quo period has been observed.

In total, then, 14 disruptions of airline services were evident in 12 emergency boards. Only one was an illegal work stoppage called in defiance of the Railway Labor Act emergency procedures. Even though Emergency Board 135 was created to hear the job security dispute between the

Flight Engineers (FEIA) and Pan American, those employees refused flight assignments for 7 days, an action which resulted in 100,000 man-days of idleness for 20,000 workers.

Combined, the 14 work stoppages entailed 4,326,911 man-days lost by 187,953 airline employees. This represented 72.1 percent of all airline man-days idle during 1936-69 and 46.8 percent of all airline workers involved in strikes during the same period. As the following tabulation indicates, ground crafts accounted for a substantial share of these losses, largely because of six machinists' strikes, such as, a 43-day stoppage in 1966 which involved 70,858 workers and 1,922,031 man-days idle and one extending for 37 days in 1958 at Capital, which involved 6,838 workers and 184,626 man-days lost.

	Workers involved		Man-days idle	
	Number	Percent	Number	Percent
Total, all airline work stoppages.....	401,862		5,988,345	
Total, emergency disputes....	187,953	100.0	4,326,911	100.0
Flight.....	75,493	40.2	1,615,202	37.3
Ground.....	94,353	50.2	2,333,447	53.9
Both.....	18,107	9.6	378,262	8.7

SOURCE: Bureau of Labor Statistics.

**Further study**

This article is a section of a larger study of the airline industry and its experience under the provisions of the Railway Labor Act. The study includes the economic nature of the industry; the history and characteristics of airline collective bargaining; the objectives of the Railway Labor Act and the functions of the National Mediation Board; and statistical analyses of mediation cases, work stoppages, and emergency boards in the airline industry during the 1936-69 period. Primary sources of information for this report are published and unpublished records of the National Mediation Board and unpublished Bureau of Labor Statistics work stoppage reports. The results of this study will be published as a BLS bulletin in 1970 or 1971. □

—FOOTNOTES—

<sup>1</sup> Some of the 63 mediation cases were combined into one emergency board case; others were considered separately.

<sup>2</sup> Average duration refers to the mean duration of the emergency boards, defined as the time span between the issuance of the "Section 6" notice and 30 days after the emergency board report.

<sup>3</sup> The act permits no unilateral change in the terms and conditions of employment for a 30-day period following the emergency board report.

<sup>4</sup> This is a somewhat arbitrary definition since hearings are often intermittently held, sometimes informal in nature (for example, over the telephone) and often extend beyond the formal period as defined by the act.

<sup>5</sup> Four Emergency Boards—158, 152, 149, and 100—were not included because no emergency board reports were issued.

<sup>6</sup> *Thirty-Fourth Annual Report of the National Mediation Board* (for the Fiscal Year ending June 30, 1968), pp. 23-24.

<sup>7</sup> *Ibid.*, p. 6.

<sup>8</sup> Substantive recommendations were issued in Emergency Boards 36, 38, 90, 94, 99, 101-03, 120-23, 125, 128, 136, 140, 142, 144, 146, 156, 166-68; less detailed recommendations, in Emergency Boards 62, 135, and 143. No formal emergency board reports or recommendations were promulgated by Emergency Boards 67, 100, 108, 124, 149, 152, and 158.

<sup>9</sup> Although the parties, initial response was favorable, the parties deviated from the recommendations in subsequent negotiations.

<sup>10</sup> Lack of available information made it impossible to include the response of the parties involved in Emergency Board 38.

<sup>11</sup> *Seventeenth Annual Report of the National Mediation Board* (for the Fiscal Year ending June 30, 1951), p. 33.

<sup>12</sup> It is assumed that a negotiated agreement was the principal method of settlement when there was no indication that either a mediation agreement or an arbitration agreement was consummated. In boards involving more than one carrier or union, the method of disposition was determined by the author's knowledge of the prevalent means of settlement used by the parties.

<sup>13</sup> The principal method of settlement in Emergency Board 122 in which one party agreement and one mediation agreement was consummated was not included. In the immediate discussion dealing with the number of each type of settlement, the two agreements were included.

<sup>14</sup> Two of these strikes (Emergency Board 62) extended both prior to and after the creation of the board.

## Communications



### USING UNEMPLOYMENT INSURANCE WAGE REPORTS AS A DATA SOURCE

MICHAEL E. BORUS

EARNINGS ARE probably the most important output measure of the effects of manpower programs. Moreover, they are a key independent variable in most studies of economic, social, and political behavior. Yet personal interviews—the technique most often used for gathering this essential data input—is a costly, usually difficult process and involves systematic response errors.<sup>1</sup> Consequently, knowledge of other sources of earnings data could be extremely useful. The purpose of this communication is to describe one source of earnings information which has not been used extensively but which is inexpensive, easy to use, and accurate for certain purposes: the wage reports collected by the State employment security agencies under provisions of their unemployment insurance laws.

Thirty-seven States presently collect this information.<sup>2</sup> In these States, all employers covered by the unemployment insurance laws must report the quarterly earnings of each of their employees. In all of the States, employers with four employees or more are required to report, and in 21 States employers of one employee or more. Some workers are excluded, however. These are the self-employed, employees of nonprofit organizations or of immediate relatives, domestics, farm and railroad workers, and most government employees. Federal civilian employees and exservicemen are covered under a separate program financed through Federal funds but administered by the States. Rail-

road workers are covered by a separate program administered by the U.S. Railroad Retirement Board.

On November 13, 1969, the Employment Security Amendments bill (H.R. 14705) to widen State unemployment insurance coverage by approximately 4.4 million was passed by the House of Representatives. Coverage would include workers in firms employing one worker or more, miscellaneous service occupations, and employees of nonprofit organizations, State hospitals and universities, and agricultural processors. An amended version of the bill was passed by the Senate on April 7, 1970. The Senate version did not cover small employers but added coverage for large employers of farm workers, extending coverage to approximately 4.5 million workers. A conference committee is considering the differences.

#### Advantages of wage reports

When compared with personal interviews, wage report earnings data have three distinct advantages. First, the data are reliable: They are supplied directly from payroll records by employers, as a legal obligation. Consequently, there are no problems of faulty recall, interviewer biases, or other factors leading to response errors. Second, the data are quickly and readily available. Earnings are usually posted within 3 months of the end of each quarter. Moreover, since they are used daily for verifying unemployment insurance claims, the reports are filed by social security numbers on punch cards or magnetic tape for easy access. This contrasts sharply with the difficult and time-consuming process of locating individuals for personal interviews. Finally, because the reports are employer-provided and filed for quick recovery, the costs of finding the wage reports of any individual are extremely low, usually 10 cents an individual or less—considerably lower than the cost for personal interviews.

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Wage report data also are preferable, in some respects, to Social Security Administration records, the other source of government collected earnings information. Unlike reports to the Social Security Administration, the employer's wage reports must include all wages paid to each employee. There is no limit to the amount which is required (now \$7,800 for social security). Thus, for some types of individuals, wage report data will be more complete.

In addition, the unemployment insurance wage reporting data will usually be available at least 6 months earlier than the Social Security data. While the wage reports are usually available within 3 months of the end of each quarter, the Social Security Administration's nonfarm wage earnings data are not nearly complete until about 10 months after the end of the year in which they are paid.<sup>3</sup>

Finally, the wage reports may provide other useful information. In addition to the earnings information, the States also collect the employer's name and Standard Industrial Classification code. These data can be used to determine industrial and job mobility of the workers. The wage reports may also be useful for longitudinal studies of earnings.<sup>4</sup>

### Limitations on the uses of wage reports

The major limitation of the wage reports is their restricted coverage. The 13 States which do not collect these data include many of the major industrial centers. And, even in the States collecting the information, important groups of workers are excluded from coverage. Nationally, about 50.5 million workers, or 61.7 percent of the work force in the 50 States, were covered by the State unemployment insurance program in 1967. The increase in coverage proposed in H.R. 14705 would mean that approximately 68 percent of the work force would be covered by State programs. Within the wage reporting States with coverage of four employees or more, coverage ranged from 32.9 to 65.7 percent and from 45.0 to 73.3 percent in the States which covered employers of less than four employees.<sup>5</sup> For the particular segments of the population who are participants in social and manpower programs, however, the percentages of

covered employment may be higher since most programs provide for nonagricultural employment. Approximately 75 percent of nonagricultural establishment employees were covered in 1967.<sup>6</sup>

Another problem is that the data are collected only for employers in a particular State. Individuals who leave a State will have no reported wages in that State and will be indistinguishable from persons who are unemployed or not in the labor force for the given period. This will be a particularly important factor for those programs which affect the geographic mobility of their participants or for longitudinal investigations. A search of the files of other wage-reporting States would ameliorate this problem but would be more costly.

Finally, the States usually include no more than eight quarters of earnings data in their files. Thus, for longitudinal studies the files will have to be searched repeatedly.

In all three of these respects the Social Security Administration information is preferable. These data cover about 90 percent of persons in paid employment, coverage is national, and records are not discarded.

*On balance*, wage report data have definite limitations which restrict their use for certain purposes. They can, however, be an extremely valuable source of data. In those situations where programs need early evaluation, wage reports are the only available source of information on earnings.<sup>7</sup> They also will be helpful for research purposes, such as data checks, methodological studies, or the design of stratified samples, where ready accessibility and low cost are more important than completeness of response.<sup>8</sup>

For long-term studies, Social Security Administration records appear preferable as the basic data source. Even in these cases, however, wage report data will be useful. They can be used to supplement the coverage of the Social Security records, particularly for those individuals whose earnings exceed the social security reporting limit. Thus, unemployment insurance wage reports offer an inexpensive and easily accessible source of data which may serve several important functions in research and evaluations dealing with manpower and social programs.<sup>9</sup> □

## FOOTNOTES

<sup>1</sup> See Michael E. Borus, "Response Error in Survey Reports of Earnings Information," *Journal of the American Statistical Association*, September 1966.

<sup>2</sup> The data are also collected in the District of Columbia and Puerto Rico. The States which do not collect the information are Hawaii, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, Ohio, Rhode Island, Utah, Vermont, Wisconsin, and Wyoming. *Comparison of State Unemployment Insurance Laws*, Revised August 31, 1966, January 1, 1967, August 31, 1967, January 1, 1968, and August 31, 1968 (U.S. Department of Labor, Unemployment Insurance Service) p. BT-1.

<sup>3</sup> Moreover, less than 90 percent of self-employment earnings are posted until 16 months after the end of the calendar year. See *Some Statistical Research Resources Available at the Social Security Administration* (Office of Research and Statistics, undated), p. 3.

<sup>4</sup> This was proposed to the State employment security agencies in *Guide for a Continuous Wage and Benefit History Program* (U.S. Department of Labor, Bureau of Employment Security, 1966), BES U-251. The Continuous Wage and Benefit History Program may also offer a comparison group for evaluating the changes in the earnings of program participants.

<sup>5</sup> These percentages were calculated from annual average insured employment and unemployment provided by the U.S. Unemployment Insurance Service and from work force data presented in *Area Trends in Employment and Unemployment*, (U.S. Department of Labor, Bureau of

Employment Security, July 1968), p. 43.

<sup>6</sup> Coverage of program participants will not necessarily be higher, however, especially prior to the program. A survey of low income areas in Fort Wayne, Ind., included 194 persons who reported at least one job. Only 67.6 percent of the 367 jobs they reported in 1967 were included in the wage reports. Some of the remaining jobs might have been inaccurately recorded in the interview, but the present figure is almost the same as the 65.7 percent of jobs covered by the law in Indiana.

<sup>7</sup> For example, see Michael E. Borus, John P. Brennan, and Sidney Rosen, "A Benefit-Cost Analysis of the Neighborhood Youth Corps: The Out-of-School Program in Indiana," *Journal of Human Resources*, Spring 1970; Michael E. Borus, *The Economic Effectiveness of Retraining the Unemployed* (Boston, Federal Reserve Bank of Boston, 1966).

<sup>8</sup> For example, see Michael E. Borus, "Response Error and Questioning Technique in Surveys of Earnings Information," *Journal of the American Statistical Association*, June 1970.

<sup>9</sup> For specific limitations of the data in a particular State and to arrange permission for use of wage reports, the researcher should contact the Director of Research and Statistics of the State employment security agency with which he is interested in working. The addresses of these agencies can be found in any issue of *Area Trends in Employment and Unemployment*.

## Arbitration

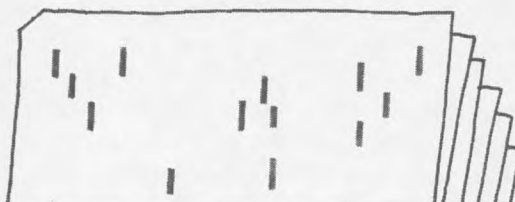
. . . Arbitration is not an ultimate weapon. It never has been, and it never can be, absent compulsion beyond that which we are yet ready to accept. Even in those foreign countries and states where arbitration is "compulsory" for certain kinds of disputes, the results concerning strike-prevention have been far from absolute. The very final-sounding connotation of the word arbitration has conjured promises that cannot be fulfilled and, in large measure because of this semantic pitfall, the creative development of arbitration has been hindered from developing its full potential as one of several impasse-resolving techniques. . . . If we can

get over the notion that arbitration is "the ultimate weapon," and instead regard it as a very flexible tool to be part of the collective bargaining process, then perhaps we can begin to maximize its potential. Used creatively, it can be a valuable device to forestall the real ultimate weapon against strikes: governmental decrees backed up by totalitarian measures—in other words, the end of free collective bargaining.

—JOSEPH S. MURPHY

"The Potential and Limitations of Arbitration as an Impasse-resolving Technique," in *Collective Bargaining Today* (Washington, Bureau of National Affairs, 1970).

## Research Summaries



### WAGES IN MEAT PRODUCTS PLANTS

JOSEPH C. BUSH

STRAIGHT-TIME EARNINGS of production and related workers in meatpacking plants averaged \$3.30 an hour in January 1969, compared with \$3.08 for those in prepared meat products plants, according to a Bureau of Labor Statistics survey.<sup>1</sup>

As in an earlier survey taken in November 1963,<sup>2</sup> plants with collective bargaining agreements employed slightly more than four-fifths of the workers in the two industries. Three-fourths or more of the workers in each industry were men and were paid time rates. Multiplant companies<sup>3</sup> employed three-fifths of the 128,645 production workers in the meatpacking plants and slightly more than one-third of the 44,003 workers in prepared meat products plants. The average employment size of meatpacking plants (168 workers) was more than twice the average for prepared meat products plants (68 workers). The Great Lakes and Middle West regions accounted for nearly 60 percent of the workers in meatpacking plants, whereas plants in the Middle Atlantic, Great Lakes, and Pacific regions employed about 70 percent of the workers in the prepared meat products industry. (See table 1.)

#### Meatpacking

The level of production worker earnings in meatpacking plants in January 1969 (\$3.30 an hour) was 23 percent above the average recorded in November 1963 (\$2.69), the date of a similar Bureau survey. During the 1963-69 period, the annual rate of increase in average earnings was 4.1 percent. It ranged from approximately 6 per-

cent in three southern regions, including Border States, Southeast, and Southwest, to about 3.5 percent in the Middle Atlantic, Mountain, and Pacific regions.

Workers in the Great Lakes and Middle West regions averaged \$3.49 and \$3.76 an hour, respectively, in January 1969. Averages in the other regions ranged from \$2.24 in the Southeast to \$3.80 in the Pacific region. Within regions, earnings varied by type of company (multiplant and single-plant companies), community size, establishment employment size, collective bargaining agreement status, and occupation.

Average hourly earnings for the occupations selected for separate study ranged from \$4.79 an hour for boners of beef, loins, ribs, or rounds to \$2.57 for smokers (combination of sausages and other products). Also averaging more than \$4.50 an hour were beef chuck boners (\$4.72) and ham chisel boners (\$4.71). Maintenance electricians, machinists, millwrights, hand welders, and stationary engineers had averages ranging from \$4.02 to \$4.37 an hour. Numerically important jobs near the lower end of the wage structure included casing-peeler operators (\$2.72 an hour), janitors (\$2.91), and shipping packers (\$2.99).

Nearly all production workers were in plants providing paid holidays, usually 8 days a year, and paid vacations. Typically, workers received 1 week of vacation pay after 1 year of service, 2 weeks after 3 years, 3 weeks after 10 years, at least 4 weeks after 15 years, and 5 weeks or more after 20 years. Establishments paid at least part of the cost of life, hospitalization, surgical, medical, and catastrophe (major medical) insurance, as well as retirement pension benefits, to most workers in the industry.

#### Prepared meat products

The average hourly earnings of \$3.08 for production workers in prepared meat products plants in January 1969 was 23 percent above the Novem-

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ber 1963 average of \$2.50. The annual rate of increase in average earnings was 4.2 percent. It varied by region: 3.5 percent in the Pacific, 3.9 percent in the Middle Atlantic, and approximately 5 percent in New England, Southeast, and Great Lakes. In January 1969 regional averages for production workers ranged from \$2.25 an hour in the Southeast to \$3.60 in the Pacific. As in the meatpacking industry, earnings varied by type of company, community and establishment size, collective bargaining agreement status, and occupation.

Averages for the occupations studied separately ranged from \$4.30 for stationary engineers to

\$2.77 for janitors. Pork trimmers, casing-peeler operators, labeling-machine operators, shipping packers, night cleaners, and forklift operators, averaging from \$2.86 to \$2.99 an hour, were the only jobs other than janitors with averages below \$3.

Proportions of production workers in prepared meat products plants receiving paid holidays, paid vacations, and various types of health, insurance, and retirement pension benefits were about the same as in meatpacking plants. The 5-week paid vacation for long-service employees was more prevalent, however, in meatpacking plants than in prepared meat products plants. □

**Table 1. Average straight-time hourly earnings<sup>1</sup> of production and related workers in meat products industries, United States and regions, January 1969**

Region	Meatpacking		Prepared meat products	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
United States.....	128,645	\$3.30	44,003	\$3.08
New England.....	.....	.....	3,329	3.03
Middle Atlantic.....	6,792	3.20	11,036	3.06
Border States.....	8,080	2.73	.....	.....
Southeast.....	16,398	2.24	2,393	2.25
Southwest.....	11,060	2.59	.....	.....
Great Lakes.....	24,968	3.49	13,126	3.25
Middle West.....	48,416	3.76	.....	.....
Mountain.....	5,461	3.27	.....	.....
Pacific.....	7,184	3.80	6,306	3.60

<sup>1</sup> Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

NOTE: Dashes indicate data which do not meet publication criteria.

#### FOOTNOTES

<sup>1</sup> The survey covered: Meatpacking establishments with 20 workers or more primarily engaged in slaughtering cattle, hogs, sheep, and other animals other than poultry and small game for meat to be sold or used on the premises in canning and curing, and in making sausage, lard, or other products; and prepared meat products, establishments with 10 workers or more primarily engaged in manufacturing sausages and other prepared meats from purchased carcasses and other materials. A more comprehensive account of the survey will appear in a BLS bulletin scheduled for Fall 1970 publication.

<sup>2</sup> See L. Earl Lewis, "Wages in Meat Products Plants, November 1963," *Monthly Labor Review*, July 1964, pp. 801-807.

<sup>3</sup> Includes those operating 2 establishments or more in the meatpacking or prepared meat products industries.

### Effect of high wages in meatpacking plants

It is clear that earnings in the meat industry, as a whole, are close to those received in other manufacturing industries. The meat industry, moreover, pays substantially higher wages than other nondurable goods manufacturing. . . . The high wages in the meatpacking plants are undoubtedly the twin function of the disagreeableness of the work and the consequent need to pay considerably more for work in order to attract labor, and the power and pressures of strong trade unionism. Over the years, this has meant high wages for work not highly rated

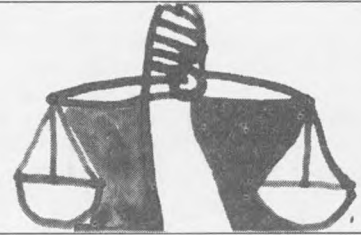
as to skill. But this, in turn, has probably placed additional pressures on the industry's low profit margins and has accelerated automation, the substitution of equipment for labor, and the dispersal of the older center city facilities to smaller, more efficient plants near the sources of supply.

—WALTER A. FOGEL,

*The Negro in the Meat Industry*  
(Philadelphia, Wharton School of Finance and Commerce, University of Pennsylvania, 1970).



## Significant Decisions in Labor Cases



### Assessing contract terms

Earlier this year, the U.S. Supreme Court ruled, in *H. K. Porter*,<sup>1</sup> that the National Labor Relations Board has no authority to compel agreement on substantive matters in contract negotiations. The issue of dictated agreement subsequently emerged before a Federal court of appeals (in *Tivdee Products, Inc.*<sup>2</sup>) in a different context; and this time received a different treatment. The question this time was whether the NLRB can compel an employer who unlawfully refuses to bargain to pay the resultant damages to his employees and their union based on an assessment of contract terms that would have been agreed upon had he bargained. The court said that the Board can do so without the fear of violating the *H. K. Porter* principle of noninterference in substantive bargaining.

The problem reached the court when the Board asked for the enforcement of a cease-and-desist order it had issued to an employer who had flagrantly—"brazenly"—violated the law in connection with the union's efforts to organize its employees, and who refused to bargain after the union had won the representation election. In a concurrent action, the union challenged the traditional remedy of the Board as inadequate, claiming that a mere cease-and-desist order "for a case of such intransigence bountifully and improperly rewards the company for its transgression, and cannot be maintained as a faithful performance of the Board's task [of effectuating the National Labor Relations Act]." (Court's language.) It demanded damages—pay increases for employees and membership dues and fees for itself—based on estimated terms and dates of the contract that might have been reached but for

the employer's violations.<sup>3</sup> Enforcing the order, the court nevertheless agreed with the union.

In a lengthy discourse, the court took the Board to task for the "inadequacies" of its remedies in some instances of gross violations of the law. It was particularly concerned about the Board's "prospective-only doctrine" inherent in ordering the violators to cease their unlawful conduct but overlooking the violations already committed. And it was displeased with the Board's tendency to limit itself to "only doing the same as it has done before" and considering it proper and adequate since it is consistent with past remedies.

The court stressed that section 10(c) of the NLRA requires the Board "to take such affirmative action [against the violator] as will effectuate the policies of this act." And it added, "The 'affirmative action' clause . . . is not a mere charter of authority that the Board has option to exercise or ignore. It is, as the [Supreme] Court has recently stated, a 'broad command.'"<sup>4</sup>

In favoring a retrospective assessment of contract terms for the purposes of estimating damages, the court relied primarily on decisions in *Fibreboard*<sup>5</sup> and *Mooney Aircraft*,<sup>6</sup> in which such retrospective estimation had been made. In *Fibreboard*, the court recalled, the Supreme Court approved a rather drastic remedy of the Board as one necessary "to insure meaningful bargaining." But a cease-and-desist admonition can hardly insure a meaningful bargaining in a situation similar to that involved here. Citing other rulings,<sup>7</sup> the court said, "[A] prospective-only doctrine means that an employer reaps from his violation of the law an avoidance of bargaining which he considers an economic benefit. Effective redress for a statutory wrong should both compensate the party wronged and withhold from the wrongdoer the 'fruits of its violation.'"

Regarding the question of whether the Board has the power to grant the kind of remedy the union requested, the court said,

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

The power to accord some meaningful make-whole relief is not necessarily undercut by the provision in section 8(d) of the act that the obligation to bargain collectively 'does not compel either party to agree to a proposal or require the making of a concession.' In this case the refusal to bargain is clear and unmistakable, and there is not the slightest suggestion that the refusal to make a concession might be identified as a refusal to bargain collectively. The Board cannot be faulted on the ground that it is imposing contract terms upon an unwilling employer when it is engaged only in a determination of a means of calculating a remedy to compensate for injury sustained from an unfair (and unlawful) labor practice.

After giving a "careful consideration" to the Supreme Court's ruling in *H. K. Porter*, the appeals court decided there was no inconsistency between that pronouncement and its own position:

. . . We in no way suggest . . . that the Board can compel agreement or that the make-whole remedy is appropriate under circumstances in which the parties would have been unable to reach agreement by themselves. Quite the contrary, we have specifically limited the scope of our remand first, to consideration of past damages, not to compulsion of a future contract term, and second, to [estimation of] damages based upon a determination of what the parties themselves would have agreed to if they had engaged in the kind of bargaining process required by the act.

The case was remanded to the Board with instructions to make other findings—such as payment of unnecessary costs sustained by the union during the dispute—if it determined that the kind of relief asked by the union cannot be granted.

One member of the court (Judge MacKinnon) concurred in the majority decision to uphold the order, but disagreed with the disposition of the make-whole claim. He deferred to the *H. K. Porter* principle of noninterference in substantive contractual provisions, and said that in the present case the "fundamental error" of the majority opinion was that it authorized an assessment of contract terms on the assumption that, had they negotiated, the parties would have reached certain results. Yet, although the law demands bargaining, "there is no legal duty upon either party to agree upon a contract."

Here the Board was expected to assess alleged damages by estimating the terms the parties would have agreed to. "However, if any prediction were to be made, the history of this case seems to make it clear that the most realistic prediction would be that the parties would not have agreed to anything." In effect, "the Board is thus necessarily

relegated to a determination of what the parties *should* have agreed to had they bargained. In short, the damages here are [authorized to be assessed] upon a failure to *agree*, which is not the duty imposed on either party, and a failure to agree upon a specific result, which is entirely speculative."

The dissenting judge dismissed the majority's reliance on *Fibreboard* and *Mooney Aircraft* as erroneous because, he said, these decisions are "scarcely authority for the proposition that the Board may in effect write a contract where one did not exist before, and then base its remedy on the contract it has written." The two cases involved preexisting contracts, and the remedies provided there were based on those contracts; in the present situation there was no contract.

### Wage deductions for debts

In a decision reported here some time ago,<sup>8</sup> a Federal district court faced the question of whether a referee in bankruptcy can prevent an employer from firing a worker whose wages have been attached to satisfy his debt. A collective bargaining agreement authorized dismissal for a "demand against wages," yet the court directed the employer to obey a referee's order not to dismiss a debtor employee.

The employer's contract right was recently vindicated—at least for the time being, it seems—when the case reached the court of appeals (*in re: Jackson*<sup>9</sup>). The court said the employer's insistence on enforcing the agreement was sanctioned by the Labor Management Relations Act.

The agreement in question required that "when [a] demand against wages of an employee is received by the company, the employee will be allowed 7 calendar days [to obtain] a release from all obligations under the law incurred by reason of [the] demand. . . . To fail to present such release . . . within [a] 60-day period will result in the employee's termination. . . ." (Language of the contract.) The employer (International Harvester Co.) was not consistent in enforcing the provision, and wage deductions were made to satisfy legal financial obligations of many employees. But when the plaintiff in this case was unable to make monthly payments under an arrangement of the referee in bankruptcy, the referee ordered the company to make regular deductions from the employee's wages. The company obeyed, but told the employee that he

would be fired under the provision of the contract if he did not obtain an early release from the order. The employee complained to the bankruptcy court, and the referee enjoined the company from dismissing the worker.

A Federal district court upheld the order. In its opinion, the contract merely authorized but did not require dismissal of a debtor employee. More important, "nothing in the LMRA, or any decision of court in relation thereto, means that by collective bargaining agreement an employer can create for himself the authority to decide whether a valid wage deduction order of a court of bankruptcy shall be effective or not."

The court of appeals noted that, first of all, the referee in bankruptcy had no authority to enjoin the employer from dismissing the debtor. The Bankruptcy Act authorizes issuance of wage deduction orders enforceable in courts, but "[n]owhere in the act is there any authority to a court to continue a debtor's employment against his employer's will."

Second, "The right which [the company] seeks to enforce is not against [the] policy of the United States," the court said, citing the declaration of section 101 of the LMRA that it is the policy of the United States to encourage "the practice and procedure of collective bargaining [on] terms and conditions of . . . employment. . . ." Dismissal for unreleased wage demands was a condition of employment agreed upon by the employer and the employee's chosen representative, the union, and the employer was dutybound to observe the agreement.

Third, the court pointed to the rule followed by courts that "when a dispute arises within the scope of a collective bargaining agreement, the parties are relegated to the remedies which are provided in such agreement."<sup>10</sup> "The [present] case is clearly one which involves application and interpretation of the collective bargaining agreement. It involves a dispute arising under a labor contract."

As an alternative remedy for the claimant, the appeals court suggested that the referee in bankruptcy, instead of trying to enjoin the company, could have issued a "turn over" order, under the *Krakover* rule,<sup>11</sup> compelling the employee to endorse his pay checks for the purpose of deductions to satisfy his debt. Issuance of a wage deduction order would thus be avoided, and the company would not face the necessity under the contract to

discharge the worker for an unreleased wage demand.

The lower court had rejected this solution, holding that it was "second best" where the Government's sovereignty was concerned (in deductions from a Federal employee's pay) but that here it would amount to absolving the employer from complying with a statutory provision. ". . . Congress did not intend to grant the employers in any event the right to choose between compliance with such [deduction] order and discharge of the employees solely because of it."

### Pseudotraining and equal pay

A Federal court of appeals has recently reaffirmed that differences in pay must be based on bona fide differences in jobs. In *Shultz v. American Can Co.*<sup>12</sup> it held that maintenance of certain allegedly justified pay differentials was, in effect, a thinly disguised effort to discriminate against women employees.

A container and cup manufacturing plant maintained three shifts of machine operators—the AM and PM shifts (hereafter also referred to as "day shifts"), consisting predominantly of women, and the night shift filled by men only. The tasks and responsibilities of the workers on all shifts were the same, except that night-shift workers had to fill their machines with heavy rolls of paper largely by using certain mechanical devices, a function that was performed during the day by special workers ("roll boys"). Another distinction of the night workers was that plant maintenance personnel were drawn from their ranks.

The operators on the day shifts were paid 20 cents less per hour than the night operators. This differential, which was in addition to the legitimate "night-shift premium" paid to all employees on the PM and night shifts, had been maintained since the time the plant was opened.

At one time the day shifts were specifically limited to women, the night shift to men. But shortly after the Equal Pay Act of 1963 went into effect (June 11, 1965), the company and the employees' union reached an agreement which "purported" to abolish the wage differential based on sex for all jobs in the plant, and opened the night shift to women and day shifts to men. The pay differential between day and night operators

was retained, and so was the established practice of promoting night workers to maintenance positions. Several men transferred to the day shifts but no women were assigned to night work. Subsequently men were permitted to "bump" AM-PM workers with lesser seniority in case of a reduction in force, and a similar privilege was given to the employees on the two shifts.

The court of appeals disagreed with the lower court that a night differential (as distinguished from the night-shift premium) was justified here. And the opening of shifts to workers of the opposite sex, the court said, was no antidiscrimination measure that would satisfy the requirements of the act, for it did not do away with the differential for which no valid reason existed. In fact, the law was additionally violated, the court said, when men were transferred to the lower-paying day shifts, since the statute prohibits equalization of rates through a wage decrease.

Neither of the claimed distinctions between the day and night shifts was validated by the appellate court's findings. The Secretary of Labor had proved that the primary duties (except the paper loading) of the workers on all shifts were the same and, therefore, "equal" within the meaning of the law as interpreted by courts, that is, "they require[d] the same effort, skill, and responsibility." (The present court's language.) The loading of paper into the machines at night required very little extra effort and no special training, and women could easily do it.

Thus, as regards equality of work, the situation here, the court stressed, was "factually similar" to that in *Shultz v. Wheaton Glass Co.*<sup>13</sup> and was governed by the decisions in that case: *Wheaton* "is precedent for the result reached by this court" in the present case.

The present case, however, differed from *Wheaton* in one respect: the employer here maintained that

night work provided the workers with experience which qualified them for advancement to plant maintenance jobs, and this fact accounted for the traditional practice of selecting maintenance workers from the night shift. In short, the night shift combined regular work plus training and, therefore, deserved a wage differential.

The court answered:

While the evidence does indicate that most of the employees in the maintenance classification progress to that position through the night-shift operator classification, there is no showing that the night-shift operators are required to perform any maintenance task not required of the AM-PM shift operators. In fact, neither male nor female operators perform maintenance work on the machines operated by them. They are simply too busy to do so. The company has no bona fide "training program" [as defined by law—29 C.F.R. section 800.148] to train night shift operators, whether male or female, for maintenance responsibility. All operators have an equal opportunity to gain an understanding of the maintenance problems by operating their machines. Furthermore, men hired as operators are not required to demonstrate greater mechanical ability than women hired for the same positions. Finally, all maintenance men go through the same training program, whether promoted or hired off the street.

A pretended training program had been the issue in *First Victoria National Banks*,<sup>14</sup> decided last year, and the court here found the present situation "to be controlled by the same opinion." The court concluded its discourse with the following citation from that opinion:

Moreover, such imprecise programs are outside the scope of the broad statutory exception—"a factor other than sex' . . . because they are not in harmony with the congressional purpose: the elimination of those subjective assumptions and traditional stereotyped misconceptions regarding the value of women's work. These programs are inconsistent since in actual operation the work and role of the male employees—"trainees"—cannot be distinguished from the female workers. . . .

—FOOTNOTES—

<sup>1</sup> *H. K. Porter Co., Inc. v. NLRB* (U.S. Sup. Ct., March 2, 1970); see *Monthly Labor Review*, May 1970, pp. 71-72.

<sup>2</sup> *NLRB v. Tiidee Products, Inc.; International Union of Electrical Workers v. NLRB* (C.A.-D.C., April 3, 1970).

<sup>3</sup> The union estimated that the contract would have been concluded within 75 to 100 days after its certification and claimed damages from that date. For the employees, it claimed a wage increase of at least 15 cents an hour from the assumed day of agreement plus cost-of-living increases calculated according to the movement of the

U.S. Department of Labor's Consumer Price Index from that date. The union also assumed that the contract would have contained a union security clause, under which it would have received dues and initiation fees from at least those who had voted for it in the election. It claimed reimbursement for the alleged loss of these membership payments from the estimated date when the security clause would have gone into effect.

<sup>4</sup> *NLRB v. Rutter-Rex Manufacturing Co.* (U.S. Sup. Ct., December 15, 1969).

<sup>5</sup> *Fibreboard Paper Products Corp. v. NLRB*, 379 U.S. 203 (1964); see *Monthly Labor Review*, February 1965, p. 165. In that situation, the company had contracted out, for valid business reasons, some of its operations without bargaining with the union of the employees involved. The action merely replaced the old employees with those of an independent contractor. It was taken after the expiration of the old contract and without regard to the union's proposals for a new one. The Board ordered the company to resume operations and to reinstate the displaced employees with backpay.

<sup>6</sup> *NLRB v. Mooney Aircraft, Inc.*, 375 F. 2d 402 (C.A. 5); review denied 389 U.S. 859 (1967). Here the Board awarded backpay to an unlawfully discharged employee at a rate higher than that he had received before the discharge, on the assumption that he would have been promoted.

<sup>7</sup> *NLRB v. American National Insurance Co.*, 343 U.S. 395, 404 (1952)—see *Monthly Labor Review*, July 1952, p. 63; *Montgomery Ward & Co. v. NLRB*, 330 F. 2d 889, 894 (C.A. 6, 1965)—see *Monthly Labor Review*, March 1965, p. 316; and *Winn-Dixie Stores, Inc.*, 147 NLRB 788, 782 (1964), affirmed in part by C.A. 5 (1966), 361 F. 2d 512.

<sup>8</sup> *In re: Jackson* (D.C., S.D.—Ill., October 18, 1968); see *Monthly Labor Review*, February 1969, pp. 71–72.

<sup>9</sup> C.A. 7, March 26, 1970.

<sup>10</sup> The court's paraphrase of the appellate decision in *Haynes v. United States Pipe & Foundry Co.* (C.A. 5,

1966). The court also cited U.S. Supreme Court's rulings to this effect in *United Steelworkers v. Enterprise Wheel and Car Corp.*, 363 U.S. 593; and *Republic Steel Corp. v. Maddox*, 379 U.S. 650, 652–3 (1964)—see *Monthly Labor Review*, May 1965, pp. 566–567.

<sup>11</sup> *United States v. Krakover*, 377 F. 2d 104 (C.A. 10, 1967). In that case, the wage deduction order could not be issued against the Federal Government because of its sovereignty, and the court, instead, ordered the debtor employee to sign his pay checks from which the deductions were to be made. The Government thus was able to make the collections without being "ordered" by the court.

<sup>12</sup> *Shultz v. American Can Co.* (C.A. 8, March 30, 1970).

<sup>13</sup> C.A. 3, January 13, 1970; see *Monthly Labor Review*, April 1970, pp. 74–75. Here the court said, "Congress, in prescribing 'equal' work did not require that the jobs be identical, but only that they must be substantially equal."

<sup>14</sup> *Shultz v. First Victoria National Bank* (C.A. 5, November 28, 1969). In that case, to use the present court's language, "[t]he alleged justification for the differential was an informal, unwritten bank officer training program which provided rotation for the trainee through the various departments of the banks. The court found the rotation of the male 'trainees' to be indistinguishable from the normal course of employment for the female employees. Answering the defendants' contention that this arrangement provided justification for the pay differences, the court stated: '. . . In this sense every job in every type of business would be training. . . .'

### The 'co-determination' charge

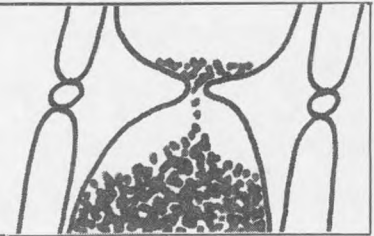
It has been asserted by some that the Board, by its *Fibreboard* decision, has by administrative fiat "legislated" into the statute the German and European doctrine of "co-determination." This is a statutory system under which specific industrial policies of broad application are committed to management-employee councils and are resolved under a system approaching compulsory arbitration. . . .

The *Fibreboard* principle is quite different. The *Fibreboard* principle is based entirely on voluntary agreement between management and labor, not compulsion. The *Fibreboard* principle does not involve labor in the general or the daily management of a business; it merely requires that unions be permitted to know and

bargain about decisions which significantly affect employee job interests. Moreover, the bargaining obligation under our Labor Act was created by Congress in 1935, long before the German laws were enacted. . . . Suffice it to say, the suggestion . . . that the NLRB has "imposed on American industry" the system of "co-determination," which "reflects the strong socialistic influence of the countries which practice it," is simply inaccurate in law, fact, and history. . . .

—Supplemental Memorandum of the National Labor Relations Board delivered to the Subcommittee on the Separation of Powers, Committee on the Judiciary, U.S. Senate on August 9, 1968.

# Major Agreements Expiring Next Month



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

Company and location	Industry	Union <sup>1</sup>	Number of workers
Acme Markets Inc., Buffalo Division (New York and Pennsylvania).....	Retail trade.....	Meat Cutters.....	1, 100
Alabama Power Co. (Alabama).....	Utilities.....	Electrical Workers (IBEW).....	2, 400
American Airlines, Inc., Stewardesses (Interstate).....	Air transportation.....	Transport Workers.....	4, 100
American Standard, Inc., Construction Equipment Division (Peoria, Ill.).....	Machinery.....	Boilermakers.....	1, 000
Associated General Contractors of America, Inc., Highway Construction Division, Alabama Branch.....	Construction.....	Operating Engineers; Carpenters; Laborers; Teamsters (Ind.); Plasterers and Cement Masons.....	4, 200
Northern and Central California Chapter, Building, Heavy, Highway and Engineering Construction, and 8 other Associations.....	Construction.....	Iron Workers.....	5, 000
Associated Underground Contractors, Inc. (Michigan).....	Construction.....	Operating Engineers.....	1, 800
Bowman Transportation Inc. (Atlanta, Ga.).....	Trucking.....	District 50, Allied and Technical (Ind.).....	1, 350
Bucyrus-Erie Co. (Wisconsin, Pennsylvania, and Indiana).....	Machinery.....	Steelworkers.....	3, 000
Chicago Lighting Equipment Manufacturers' Association (Chicago, Ill.).....	Electrical products.....	Electrical Workers (IBEW).....	1, 000
Chicago Union Restaurant Employers Council (Chicago, Ill.).....	Restaurants.....	Hotel and Restaurant Employees.....	2, 000
Commercial Job Printing Employers of Los Angeles <sup>2</sup> .....	Printing and publishing.....	Typographical Union.....	1, 100
Crane Co. (Chicago, Ill.).....	Fabricated metal products.....	Steelworkers.....	1, 900
Cudahy Co., Master Agreement (Interstate).....	Food products.....	Meat Cutters.....	1, 550
E.I. duPont de Nemours & Co., Photo Products Department (Parlin, N.J.).....	Instruments.....	Chemical Workers (Ind.).....	1, 500
Dubuque Packing Co. (Dubuque, Iowa).....	Food products.....	Meat Cutters.....	2, 500
Electric Hose & Rubber Co. (Wilmington, Del.).....	Rubber.....	Rubber Workers.....	1, 300
Fluid Milk and Ice Cream Agreement <sup>2</sup> (Sacramento, Calif.).....	Food products.....	Teamsters (Ind.).....	2, 500
Gates Rubber Co. (Denver, Colo.).....	Rubber.....	Rubber Workers.....	3, 750
Goodyear Aerospace Corp. (Akron, Ohio).....	Transportation equipment.....	Auto Workers (Ind.).....	3, 100
Graphic Arts Assn. of Michigan, Inc. (Detroit, Mich.).....	Printing and publishing.....	Bookbinders.....	1, 200
Harnischfeger Corp. (Milwaukee, Wis.).....	Machinery.....	Steelworkers.....	2, 300
Independent Super Market Operators (Detroit, Mich.).....	Retail trade.....	Meat Cutters.....	1, 200
Master Plumbers' Association of Boston and Vicinity, Inc. ....	Construction.....	Plumbers and Pipefitters.....	1, 000
Mayer, Oscar & Co. (Davenport, Iowa).....	Food products.....	Meat Cutters.....	1, 550
Mayer, Oscar & Co. (Madison, Wis.).....	Food products.....	Meat Cutters.....	2, 650
McGraw-Edison Co., Bussman Manufacturing Division (St. Louis, Mo.).....	Electrical products.....	Independent Fuse Workers Union. (Ind.).....	2, 100
Mechanical Contractors Association of Boston, Inc. ....	Construction.....	Plumbers and Pipefitters.....	1, 750
Men's Neckwear Association of New York, Inc. ....	Apparel.....	Clothing Workers.....	1, 150
Michigan Road Builders Association, Labor Relations Division.....	Construction.....	Operating Engineers.....	3, 000
Michigan Road Builders Association, Labor Relations Division.....	Construction.....	Laborers.....	1, 500
Michigan Road Builders Association, Labor Relations Division.....	Construction.....	Teamsters (Ind.).....	4, 500
Minnesota Mining & Manufacturing Co. (St. Paul, Minn.).....	Stone, clay, and glass products.....	Oil, Chemical and Atomic Workers.....	2, 500
Morrell, John & Co (Interstate).....	Food products.....	Meat Cutters.....	2, 850
Morrell, John & Co. (South Dakota and Illinois).....	Food products.....	Meat Cutters.....	3, 350
Paper Box Manufacturers <sup>2</sup> (Philadelphia, Pa.).....	Paper.....	Pulp and Sulphite Workers.....	1, 000
Plastic Products Manufacturers Association, Inc. (New York, N.Y.).....	Rubber.....	Ladies' Garment Workers.....	4, 500
Printing Industries Association (Los Angeles, Calif.).....	Printing and publishing.....	Bookbinders.....	1, 300
Sportswear Industry Agreement <sup>2</sup> (San Francisco, Calif.).....	Apparel.....	Ladies' Garment Workers.....	1, 400
Symington Wayne Corp. Symington Division (Depew, N.Y.).....	Primary metals.....	Steelworkers.....	1, 050
Trane Co. (La Crosse, Wis.).....	Fabricated metal products.....	Machinists.....	1, 900
Upholstered Furniture Manufacturers' Association (New York, N.Y.).....	Furniture.....	Upholsterers.....	2, 000
Wallace-Murray Corp., Schwitzer Division (Indianapolis, Ind.).....	Transportation equipment.....	Steelworkers.....	1, 200
Warwick Electronics Inc. (Forrest City, Ark.).....	Electrical products.....	Electrical Workers (IUE).....	1, 100

<sup>1</sup> Union affiliated with AFL-CIO except where noted as Independent (Ind.).

<sup>2</sup> Industry area (group of companies signing same contract).

## Developments in Industrial Relations



### Transportation and utilities

A key development in the tumultuous trucking industry negotiations came May 18, when the Teamsters union members approved, by a 7-to-5 margin, the April 2 national agreement for 450,000 drivers and related workers.<sup>1</sup> The ratification vote, which was supervised by the Department of Labor, at the union's request, was delayed by negotiations over local issues. In Chicago, where several Teamster locals and the independent Chicago Truck Drivers Union bargain locally for 50,000 employees, local leaders said that they would continue the selective strikes that began in mid-April to obtain a better settlement. The 39-month national contract was valued at \$1.10 an hour or 2¼ cents a mile in wage increases, plus benefit improvements. The Chicago locals had negotiated pacts with some local cartage firms that provided about \$1.65 in wage increases, plus benefit improvements. This could affect the national agreement, since it is subject to reopening if the Chicago locals obtain better terms from intercity haulers.

Another dissident group, the steel haulers, vowed to continue their walkout, even though they had approved the agreement by a 3-to-1 margin, contending that many drivers had not received ballots. (Later in the month, steel haulers in the Pittsburgh area voted to end the strike, completing a back-to-work movement that started in Indiana and Ohio.) The Teamsters allowed the 15,000 steel haulers to vote separately on the agreement after they complained that the union had not adequately represented them in the bargaining. On April 8, the National Labor Relations Board had opened

hearings on a petition by the Fraternal Association of Steel Haulers for disaffiliation from the Teamsters.

Under the national contract, hourly wage rates were increased by 35 cents on April 1, 1970, 15 cents on July 1, 1970, 25 cents on July 1, 1971, and 35 cents on July 1, 1972, and mileage rates were increased by 1 cent (a mile) on April 1, 1970, 0.5 cent on July 1, 1971, and 0.75 cent on July 1, 1972. The cost-of-living escalator clause provides increases of up to 8 cents an hour (or 2 mills per mile) on July 1, 1971, and July 1, 1972, compared with the 4-cent limits on the April 1968 and April 1969 increases. (The truckers actually received 3 cents in April 1968 and 4 cents in April 1969.) Benefit changes included an additional paid holiday (the truckers previously had between 7 and 12, varying by area); a \$4-a-week total increase in employer payments to the health and welfare and pension funds; and 2 weeks of vacation after 2 years of service, instead of 3 years and (for local cartage only) 45 hours of pay for each week of vacation, instead of 40 hours.

The Railway Carmen negotiated a contract with the Nation's railroads that was nearly the same as the 2-year pact that was imposed on four other shopcraft unions by Congress.<sup>2</sup> The Carmen received a 4-cent wage increase retroactive to January 1, 1969, in addition to the 2-percent wage increase that the other shopcraft workers received on that date. The 7-cent increase for journeymen was effective April 24, 1970, rather than February 19, 1970. The 4-cent additional increase actually resulted from a limited 1969 settlement, which provided that the increase would not become effective until an overall accord was reached. The increase was granted to equalize Carmen's rates with those for the other shopcraft unions, which gained a 4-cent larger increase in a 1964 settlement. Negotiations were continuing with the sixth shopcraft union, the Firemen and

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

Oilers, which represents 18,000 workers.

Negotiating under a wage reopening provision, Western Electric Co. and the Communications Workers agreed on a September 1 wage increase of from 10 to 20 cents an hour for 10,500 senior installers across the country. Earlier in May, to aid in recruiting, the company had granted pay raises of from 6 to 39 cents an hour for 12,225 installers with less than 72 months of experience. This led to protests from the senior employees and 2,000 installers went on strike in Florida, Georgia, and Alabama. The agreement eliminated the company's practice of granting merit increases to some employees at the end of their first 72 months. About 5 percent of the 24,000 installers did not receive increases either because they were already over the new scales, or because they belonged to one of the two classes of senior installers not affected by the settlement.

## Printing

The New York Times and the Typographers reached agreement on May 25, averting a possible shutdown by the Times and a sympathy shutdown by three other major dailies.<sup>3</sup> (On May 26, one of the papers, the New York News, reached tentative agreement with the Typographers on a similar contract.) The Times had threatened to suspend publication because the union had been holding on-the-job chapel meetings during which no work was performed, severely hampering publication. In March, when the union started the meetings, they lasted 6 hours a day but the duration was periodically increased, reaching 19 hours a day at the time of settlement.

The tentative 3-year pact, expected to set a pattern for nine other unions in negotiations with four papers, provided wage increases of 15 percent effective immediately and 11 percent in both the second and third years. The increases totaled \$76.89 a week for day work, \$80.49 for night work, and \$84.09 for the early morning (lobster) shift. Under the contract, which expired March 31, the 900 Typographers made \$184.27 for 35 hours of day work, \$192.89 for 34½ hours of night work, and \$201.50 for 33¼ hours of early morning work. The Times also agreed to reduce the work-week to 34½ hours for the day shift.

Other terms included revising the cost-of-living escalator clause to provide 1971 and 1972 adjust-

ments equal to the increase in the New York City area Consumer Price Index in excess of 6 percent during the preceding 12 months. Under the old clause, the workers received March 1968 and March 1969 adjustments equal to any increase in excess of 4 percent. Pensions were increased by \$40 a month as a result of the elimination of a clause requiring reductions in companywide pension benefits equal to any increases in the separate plan negotiated between the Typographers and the Times. Pension and welfare contributions remained at 9.304 percent of weekly earnings, but the dollar amounts increased as a result of the higher wage scales, permitting the future adoption of a dental plan.

The parties agreed not to initiate lawsuits over the chapel meetings (which cost the Times about \$600,000 pay for unworked hours and about \$5 million in lost advertising revenue because of reduced editions) and to resume bargaining if future Government controls on prices and wages nullify a contractual wage increase.

## Apparel

Representatives of the Ladies Garment Workers' Union approved a 3-year contract for 42,000 coat and suit workers in the New York City area on May 26. The pact was negotiated with three employer associations<sup>4</sup> which the union said account for about 70 percent of women's coat and suit production in the United States. Terms included wage hikes of 10 percent on June 1, 1970, and 5 percent in June of both 1971 and 1972. For time workers, the union said that the total increase will range from 51 cents an hour for the lowest rated jobs up to \$1 for cutters. Benefit changes included adoption of a dental plan.

In a move that could have an indirect effect on wages in the southern textile industry, an apparel firm, Blue Bell, Inc., of Greensboro, N.C., has granted a wage increase of about 5 percent to 16,000 production workers. A company spokesman said that the increase will average "about 10 cents an hour with slight variations in some areas due to local conditions." This was the first increase for Blue Bell employees since 1968. Southern textiles have granted eight wage increases in the last 7 years, the last coming in mid-1969.<sup>5</sup>



## Steel incentive pay

Inland Steel Co. was the first of 11 major steel companies to agree with the Steelworkers on extension of incentive pay to additional jobs. The resulting conversion of 1,346 jobs from nonincentive to incentive pay was expected to lead to settlements at some of the other firms, although talks were reportedly stalemated at U.S. Steel Corp. The negotiations resulted from an August 1, 1969, arbitration award which provided that at least 85 percent of the workers in each company and at least 65 percent in each plant with at least 100 workers must be on incentive pay.<sup>6</sup> The parties resorted to arbitration after a joint committee was unable to reach agreement on implementation of the 1968 collective bargaining settlement provision regarding extension of incentive coverage. At that time, about 70 percent of the workers engaged in steel production at the 11 firms were on incentive pay. As provided in the 1968 settlement, workers in jobs selected for conversion will receive 10 cents for each hour

worked from August 1, 1968, until they begin incentive work.

## Grape pickers

The United Farm Workers Organizing Committee (UFWOC) began the 1970 round of bargaining with wine grape growers by negotiating a 3-year agreement with the E. & J. Gallo Winery of Modesto, Calif. The company, whose vineyards are concentrated in Merced, Fresno, and Stanislaus Counties in California, agreed to wage hikes of 25 cents an hour the first year for the general labor group, and 10-cent increases in both the second and third years. Grape pickers received 35 cents the first year, and 10 percent hikes in the second and third years. As a result, grape pickers reportedly would be earning \$4.53 an hour by 1972, up from the present \$3.40. The minimum rate for newly hired workers was raised to \$2.20 an hour, from \$2.

Other terms included 2 additional paid holidays, improved vacation pay, and a company contribution of \$20,000 a year for the union's Economic Development Fund. Gallo regularly employs about 135 full-time workers, but expands to some 250 workers during harvest season. The firm was one of a dozen vintners to recognize and negotiate agreements with UFWOC after it won representation election in 1967. The union has indicated that the winemaking facilities of Schenley Industries, Almaden Vineyards, and Christian Brothers were the next negotiating targets. UFWOC had negotiated initial collective bargaining agreements with these vintners in 1966 and 1967. The pact with the wine grower came on the heels of the union's April breakthrough in reaching agreements with five growers of table grapes, after a nearly 5-year effort.<sup>7</sup> On May 21, UFWOC announced that the number of table grape growers accepting the terms had grown to seven, as two large San Joaquin Valley growers—Bruno Disputo Co. and the Bianco Fruit Corp.—signed.

## Earnings index

The Bureau's index of manufacturing production workers average hourly earnings (excluding overtime premium pay and the effects of interindustry employment shifts) rose 0.5 in February, to 153.4. Data for prior periods are shown below.

1969	Index (1957-59=100)	1970	Index (1957-59=100)
February	144.9	January	152.9
March	145.2	February	153.4
April	146.0		
May	146.6		
June	146.9		
July	147.8		
August	148.4		
September	149.5		
October	150.2		
November	151.0		
December	152.0		
Annual averages:			
1968			139.5
1969			147.7

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

## Construction

A 15-month strike ended in 33 counties in western Pennsylvania in April, when the Operating Engineers ratified a 4-year contract with the Constructors Association of Western Pennsylvania. Wages were increased by \$3.70 an hour

over the term with an initial increase of \$1.15 an hour. Previously, hourly wages ranged from \$5.35 to \$7.02.

The Associated General Contractors of America and the Carpenters signed a 2-year contract in April covering 1,500 construction carpenters in the Orange-Beaumont-Port Arthur, Tex. area. Wages were increased by \$1.70 an hour over the contract period. Under the old agreement the hourly wage rate was \$5.17½.

The Building Trades Employers Association and Painters District Council No. 6 negotiated a 3-year contract for 2,200 painters in the Cleveland, Ohio, area. The agreement, which was effective on May 1, provided a \$3-an-hour wage increase over the term. Under the old contract the hourly rate for painters was \$6.41. Earlier in May, the Electrical Workers and the Iron Workers agreed to similar contracts.

In Minnesota the Associated General Contractors Association and the Teamsters signed a 2-year contract providing wage increases of \$1.90 an hour for urban workers and \$1.70 an hour for rural workers over the term.

In Baltimore, Md., the Associated General Contractors of America and the Carpenters settled on a 3-year contract covering 2,300 workers. The agreement provided increases totaling \$4.25 an hour; the union has the option to divert part of the increases to fringe benefits. Under the old contract the hourly rate was \$5.16 plus 27 cents in fringe benefits.

## Public employees

Atlanta's 37-day garbage strike ended on April 22, following acceptance of a 1-year contract covering 2,850 members of State, County and Municipal Employees Local 1644. The pact provided a 10-cent-an-hour (\$4-a-week) wage hike for 2,300 workers effective May 1. The remaining 550 employees benefited from job reclassification resulting in pay hikes effective May 4.

The walkout, which affected the city's sanitation, construction, and parks departments, began on March 17, when the union accused Mayor Sam Massell of reneging on the payment of a wage package that had previously been offered to the union. (On January 1, 6,500 nonuniformed workers—including the strikers—had received

an 8-percent wage increase.) During the course of the walkout, the city fired some 1,600 strikers and used prisoners and private haulers to collect garbage. Other terms of the agreement included overtime pay for workers collecting accumulated rubbish. In addition, all dismissed strikers were to be rehired "without prejudice," and the city agreed to drop charges against 130 workers jailed for unlawful picketing.

A 1-year contract for 9,000 blue-collar employees of Baltimore, Md., was approved by members of the State, County and Municipal Employees Union in April. The agreement, which is effective July 1, provides for a wage increase of 5 percent with a 15-cent-an-hour minimum, beginning September 1. The city agreed to pay all of the worker's and 85 percent of his family's medical and hospital insurance premiums. Previously the city paid 60 percent of the entire cost. The contract also set a \$2.10-an-hour minimum wage for hospital workers, up from \$1.86 an hour. Garbage collectors, school cafeteria and hospital workers and jail guards were among those covered by the settlement.

A 12-day strike by public school teachers in Minneapolis, Minn. ended in April, after the school board negotiated an agreement with the Minneapolis Federation of Teachers, an affiliate of the American Federation of Teachers. Effective in September 1970, the salary for teachers with bachelor's degrees will be \$7,500 a year, rising to \$11,900 in 11 annual steps. The current range is from \$6,950 to \$10,810. Teachers with master's degrees will start at \$8,170 a year, instead of the present \$7,570, and go to \$15,000 a year in 13 annual steps instead of the present \$13,325 in 12 steps. Teachers in the lowest experience steps will receive an additional increase in January 1971. The contract also provided for three half-hour preparation periods a week for all elementary school teachers, increasing to five such periods on March 1, 1971, in inner-city elementary schools, and a reduction in class size.

On May 14, striking school teachers in Los Angeles, Calif., voted to return to work and to forgo an offered 5-percent wage increase so the money could be used to reduce class sizes and improve reading programs. About half of the city's 25,000 public school teachers began the strike in mid-April when negotiations with the city on salary increases and classroom conditions reached

a stalemate. Schools remained open during the strike with student absenteeism estimated at 30 to 40 percent.

The teachers demanded a salary scale for the 1970-71 school year of from \$10,000 to \$20,000,

up from \$7,250 to \$13,500. In addition, they wanted classes limited to 25 pupils in upper grades, relief from all nonprofessional duties, and the right to evaluate their own principals and vice principals. A free breakfast and lunch

### Convention of the American Federation of State, County and Municipal Employees

Delegates to the 18th biennial convention of the American Federation of State, County and Municipal Employees (AFL-CIO), meeting in Denver, May 4-8, displayed a healthy optimism resulting largely from reports of union progress in organization and recognition, but also from the changed status of the union in the AFL-CIO and internally.

As factionalism diminished and eventually vanished, the union grew from 234,840 members in 1964 to 440,994 in February 1970. The number of negotiated contracts during the 1964-70 period doubled from 500 to 1,000 and the number of union security arrangements tripled from 150 to 450. International President Jerry Wurf claimed ". . . now we are the vitality—not the stepchild—of the labor movement . . ."

This rapid absorption of new members called for a number of structural changes in the union. One omnibus constitutional amendment created: a 19th legislative district—the Capitol District including Maryland, Delaware, Virginia, and the District of Columbia—entitled to a vice-president; the provision of a second vice-president to any district whose membership exceeds 10 percent of AFSCME total membership; and a method of splitting existing districts if membership exceeds 10 percent rather than having two vice-presidents in one district.

The union also plans to expand the number of field offices from 8 to 14, tie them to Washington headquarters through electronic photocopying equipment, and thus provide a rapid information exchange. In a parallel move, the research and education departments announced new and expanded services, including an AFSCME Computer Wage Information System.

These actions were partly responsible for the need to increase per capita taxes. In contrast to earlier conventions, the proposal generated little debate and was handily passed with a 25-cent increase July 1, 1970, and a second 25-cent increase in January 1971, raising total monthly payments to \$1.50 per member.

Because of the lack of uniformity in State laws concerning public employee labor-management relations, the union developed its own Federal legislation. Shortly before the convention, Representative Jacob Gilbert of New York introduced the bill (H.R. 17383), and the convention made its passage a major goal of the union. It provides for exclusive recognition and dues checkoff, defines unfair labor practices, establishes a National Public Employee Relations Commission to administer

the law, and an elections procedure. Written agreements, as well as binding arbitration of disputes over the meaning of the agreement, are authorized. In negotiation impasses, the parties may agree to use mediation, factfinding, and binding arbitration. The bill is silent on the right to strike.

The convention itself, however, was not so silent on the issue of public employee work stoppages. Several invited guests supported the right to strike in the public sector and President Wurf said in his keynote address:

Most of America now accepts the right of public workers to organize and bargain collectively—and some people admit we might even have the right to strike. . . . I suggest that the postal strike was an event in the history of trade unionism as important as Executive Order 49 in New York City, that great and pioneer contract in the city of Philadelphia, the Kennedy Executive Order giving organizing rights in the Federal sector, or the Wisconsin Public Employee Relations Act . . . and that this strike of the postal workers tore down the last bastion of collective begging for public employees.

President Wurf then submitted a constitutional amendment which removed all AFSCME restrictions to the right of law enforcement officers to strike. The amendment passed unanimously and without debate. (The union represents about 9,000 policemen.)

The union's move toward a coalition of public employee unions also stemmed from AFSCME's frustrations at the bargaining table. The proposed coalition would not infringe upon the autonomy of participating labor organizations, but would concentrate its combined political power at all levels of government, a necessity for public employee unions. Invited to join were AFL-CIO affiliates, postal unions, and unaffiliated labor organizations. Wurf expressed the hope that some organic mergers may develop from these joint efforts.

President Wurf, International Secretary-Treasurer Joseph L. Ames, and most vice-presidents were elected unanimously. Contested elections were held for 10 vice-presidencies in 9 legislative districts, two of which entailed runoff elections.

—LEON E. LUNDEN  
Division of Industrial Relations  
Bureau of Labor Statistics

program for children from poverty areas was also among the proposals. A \$42-million deficit in the 1970 budget, however, forced the school board to announce cutbacks in school programs and that it could grant the 5-percent pay raise but not the improvements in working conditions. The teachers then voted to forgo the wage increase in favor of the improved classroom conditions with the stipulation that if the State gives the school district additional money, the union will have a voice in how it is spent. About 88 percent of the city's school teachers are members of the United Teachers of Los Angeles, which is affiliated with both the American Federation of Teachers and the National Education Association.<sup>8</sup>

In mid-May, Hawaii's legislature passed a bill

**Table 1. Indexes of basic salary scales, average salary rates, and average salaries<sup>1</sup> of Federal classified employees in the United States covered by the General Schedule, 1939<sup>2</sup> and 1945-70**

[October 1967=100]

Date	Basic salary scales	Average salary rates	Average salaries
August 1939.....	36.8	34.5	25.4
June 30, 1945.....	36.9	<sup>a</sup> 34.5	(9)
July 1, 1946.....	48.6	45.2	34.5
July 1, 1947.....	48.6	46.0	36.5
July 15, 1948.....	53.7	51.5	40.7
July 1, 1949.....	53.7	51.7	41.2
July 1, 1950.....	55.8	54.5	44.3
July 8, 1951.....	61.3	59.1	47.6
July 1, 1952.....	61.3	59.2	48.6
July 1, 1953.....	61.3	59.8	49.8
July 1, 1954.....	61.3	60.3	50.8
July 1, 1955 <sup>2</sup> .....	66.0	65.0	55.4
July 1, 1956.....	66.0	64.9	56.0
July 1, 1957.....	66.0	65.0	57.2
July 1, 1958.....	72.7	72.2	65.0
July 1, 1959.....	72.7	72.2	66.2
July 1, 1960 <sup>2,3</sup> .....	78.2	77.4	72.4
July 1, 1961.....	78.2	77.3	73.3
July 1, 1962.....	78.2	77.2	74.2
July 1, 1963.....	82.6	81.6	80.2
July 1, 1964 <sup>4</sup> .....	89.8	89.3	89.5
July 1, 1965.....	89.8	89.8	90.7
July 1, 1966 <sup>5</sup> .....	95.7	95.8	95.7
October 1, 1967 <sup>5</sup> .....	100.0	100.0	100.0
July 1, 1968 <sup>5</sup> .....	104.9	104.9	106.5
July 1, 1969 <sup>5</sup> .....	114.4	114.9	120.0
July 1, 1970.....	<sup>b</sup> 121.3	-----	-----

<sup>1</sup> Basic salary scales reflect only statutory changes in salaries. Average salary rates show statutory changes and the effect of merit or in-grade salary increases. Average salaries measure the effect not only of statutory changes in basic pay scales and in-grade salary increases but changes in the proportion of workers in the various grades.

<sup>2</sup> The index covers workers now under the General Schedule. Prior to 1955 it included not only workers under the General Schedule but those covered by the Crafts, Protective, and Custodial Schedule. (As of July 1, 1955, about a third of the approximately 100,000 employees under the Crafts, Protective, and Custodial Schedule were transferred to the General Schedule. The remaining two-thirds were transferred to wage board classifications, along with approximately 2,500 workers formerly under the General Schedule.) Before 1955 there were only minor differences between the indexes for all workers and for those under the General Schedule.

Beginning with 1960, data include employees in Alaska and Hawaii. The inclusion of these employees did not affect basic salary scales; average salary rates and average salaries were affected by negligible amounts.

<sup>3</sup> Estimated by assuming the same distribution of employees among grades and steps within grades in 1945 as in 1939. Since there was little or no increase in average salary rates because of in-grade increases during this period, it was assumed that the change in basic salary scales was almost the same as in average salary rates.

<sup>4</sup> Not available.

<sup>5</sup> Indexes include increases effective the first pay period beginning in the month.

<sup>6</sup> Preliminary.

permitting State and local government employees to strike—except where the public health is endangered—if efforts to reach an agreement fail. The bill set up 13 basic bargaining units, gave exclusive bargaining rights to unions representing the employees, allowed negotiations for an agency shop, and set up a five-member Hawaii Public Employment Relations Board. The board, made up of two labor and two management representatives with an impartial chairman, will enforce a code of unfair practices, establish procedures for representation elections, seek to resolve disputes, and determine when a strike will be detrimental to the public health. Procedures provided to avert strikes were mediation, factfinding with recommendations, and voluntary arbitration if both parties agree. The law also required a 60-day negotiation and “cooling-off” period after a fact-finding panel reports and a 10-day notice of intention to strike. If signed by the governor, the law takes effect on July 1, 1970.

### New York minimum wage

The New York State minimum wage rose to \$1.85 an hour, from the current \$1.60, on July 1, 1970. The State's Department of Labor reports that the increase will affect 700,000 employees.

### Salaries of Federal classified workers

Basic salary scales for Federal classified employees rose by 6 percent between July 1969 and July 1970, because of the general increase under the Federal Employees' Salary Act of 1970, retroactive to the first pay period beginning on or after December 27, 1969. Indexes of changes in average salaries and average salary rates as of July 1, 1970 have not been computed, because these indexes are influenced by changes in the numbers of employees in each grade and step, and employment statistics for 1970 are not yet available.

However, these measures are now available for 1969, as indicated in table 1. Between July 1968 and July 1969, basic salaries increased 9.1 percent, the average salary rate rose 9.5 percent, and the average salary increased 12.7 percent. Comparison of the three measures indicates a continuation between 1968 and 1969 in the growth of the proportion of workers in higher steps and grades.<sup>9</sup>

## Disneyland

About 2,000 full-time employees of Disneyland in Anaheim, Calif., were affected by a settlement between Walt Disney Productions, Inc., and about 30 unions. More than 2,000 part-time workers are also affected by the 3-year pact, which was effective immediately, superseding the remaining 2 years of a 5-year contract. The full-time employees gained a total of \$1.05 in wage increases (35 cents each year) an additional paid holiday, a reduction in the years of service required for 3 weeks of vacation, and \$50,000 major medical coverage (up from \$20,000), and improvements in pension and dental benefits.

## UAW election

On May 25, Leonard Woodcock, 59, was elected president of the 1.6-million member United Auto Workers Union, succeeding Walter Reuther who died in a plane crash on May 9.<sup>10</sup> Mr. Woodcock was elected unanimously by the union's 25-man executive board, after Douglas Fraser announced that he had decided to withdraw as a candidate and support Mr. Woodcock. Mr. Fraser said that his action was based on a poll of the executive board, which indicated that 13 members favored the new president, while 12 favored Mr. Fraser. Both UAW executives were among the union's seven vice presidents. Mr. Woodcock headed its GM and aerospace departments; Mr. Fraser heads the Chrysler Department and the UAW's skilled tradesmen.

The election of Mr. Woodcock lent some support to speculation that the UAW would choose General Motors Corp. as its prime target for the first time since 1945-46 in the auto negotiations scheduled for the fall. Referring to the coming bargaining with the "Big 3" auto makers, Mr. Woodcock said that the UAW "is determined to win a settlement that will get equity for our members and that Walter Reuther would have been proud of." He also indicated that the UAW's concern for social causes would not change. Shortly after his election, he spoke at the General Motors Corp.'s annual meeting in support of a proposal to create a committee for corporate responsibility at GM, called for a full-scale Congressional investigation of "senseless killings of American citizens by American military and police"

at Kent State University, Jackson State College, and Augusta, Ga., and repudiated his earlier support of the Viet Nam war by calling on the United States "to disentangle itself from the morass of Indochina."

## AFL-CIO Executive Council

At its quarterly session, held in Washington, D.C., the AFL-CIO Executive Council issued a statement citing the "complete failure" of the Administration's economic policies and outlining a 4-point program to "take America out of recession and end inflation." The Council statement was handed to President Nixon when he visited the Council to explain his decision to use U.S. forces against Communist sanctuaries in Cambodia. Following a briefing by the President on the Cambodian situation, the Council voted to support AFL-CIO President George Meany's May 1 endorsement of the President's decision.

In its 4-point economic program, the Council called for Congressional action directing the Federal Reserve System to establish selective credit controls and maximum interest rates on specific types of loans; action requiring that a portion of tax-exempt funds such as pension, college endowment, and bank reserves, be invested in government-guaranteed mortgages to meet a 10-year housing goal of 26 million new and rehabilitated units; action to curtail the "high rate" of business mergers, cited as a major factor in price rises; and an analysis of the reasons for rising prices, particularly in housing and medical care. The Council passed a resolution mourning the death of Walter Reuther and voted \$5,000 for the memorial fund set up in memory of Mr. Reuther and his wife.

## Opportunity line

The attempt to match applicants to job openings has been growing in recent years, and computerized job banks have supplemented public and private employment agencies. A different approach, "Opportunity Line," a 3-year-old Chicago TV show, has helped some 140,000 men and women find jobs. The show, started on an experimental basis in June 1967, has become a regular feature aimed primarily at minority audiences. By late 1968, the National Association

of Broadcasters estimated that there were some 75 shows of the type nationally and the number has grown "substantially" since.

In May, the Chicago station placed the show on prime time for a half-hour special aimed at tapping the summer work force market and prodding more employers to make jobs available. The featured guest was Thomas Caulter of the Chicago Association of Commerce and Industry and the show tried to attract "viewers who are employers or personnel managers," asking them to phone in their job openings. The special resulted in 12,000 calls, an increase over the 9,000 resulting from a special show aired last year. The show is normally viewed on Saturdays and draws 2,000 calls. In its normal format, Bill Lowry, a black assistant personnel manager at Inland Steel Co., hosts the show and describes about 15 jobs ranging from low-skill to professional positions. For instance, in recent weeks the show has fielded calls for air traffic controllers, certified public accountants, waitresses, radiologists, and guards. During the show, Mr. Lowry interviews applicants, and employment service officers advise them on job hunting.

### Mother's Day

On May 10, a 1-day work stoppage was staged by local and long distance operators of the New York Telephone Co. over a wage dispute. The union selected Mother's Day for the stoppage because the number of phone calls on that day is much greater than on a normal Sunday. A company spokesman said that although there were

some delays, supervisory personnel handled calls requiring operators and dial service was not affected.

### Strike idleness

Idleness caused by strikes in April totaled 4.2 million man-days or .26 percent of the estimated total working time. This compared to .18 percent in April 1969<sup>11</sup> and .38 percent in April 1968. The wildcat trucking strike, a walkout by Rubber Workers against Goodyear Tire and Rubber Co., and numerous construction strikes accounted for a significant portion of the idleness.

#### FOOTNOTES

<sup>1</sup> See *Monthly Labor Review*, June 1970, p. 77.

<sup>2</sup> See *Monthly Labor Review*, June 1970, p. 79.

<sup>3</sup> The New York News, the New York Post, and the Long Island Press.

<sup>4</sup> New York Coat and Suit Association, the Infants' and Children's Coat Association, and the American Cloak and Suit Manufacturers Association.

<sup>5</sup> See *Monthly Labor Review*, August 1969, p. 73.

<sup>6</sup> See *Monthly Labor Review*, October 1969, p. 60.

<sup>7</sup> See *Monthly Labor Review*, June 1970, p. 80.

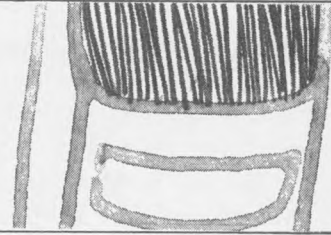
<sup>8</sup> See *Monthly Labor Review*, March 1970, p. 68, for details of the merger of the two affiliates in Los Angeles.

<sup>9</sup> A more detailed analysis appears in *Current Wage Developments*, July 1, 1970.

<sup>10</sup> See *Monthly Labor Review*, June 1970, p. 76, for an account of Mr. Reuther's death.

<sup>11</sup> Data for 1970 and 1969 are preliminary.

## Book Reviews and Notes



### Power to the corporation

*The American Corporation: Its Power, Its Money, Its Politics.* By Richard J. Barber. New York, E. P. Dutton & Co., Inc., 1970. 308 pp. \$7.95.

In brief summary, Mr. Barber notes that fast-paced and extremely important changes are sweeping across the business world, creating radical transformations in the nature and functions of the modern large corporation. As a result, current public policies relating to business are almost totally obsolete. Social critics and legislators have paid very little attention to what is happening and many corporate executives, particularly those over 40, are failing to understand and adapt themselves to the new ways. If public neglect continues, or if the response of the government is inadequate, "big corporations are going to pretty much shape the future of our world." Mr. Barber fears a social polarization in the United States, with the highly educated and technically skilled who have been assimilated into the new business world and who can make it work in one group, and with a mixed collection of small businessmen, legislators unable to control or even communicate with the new centers of private economic power, the poor, the undereducated, and "ideologically rigid liberals" in a second group. The tensions and frustrations generated by such polarization could very well destroy the Nation's present political system, according to the author.

Mr. Barber overstates his case when he asserts, "In considering this central issue of public policy, social critics have offered little of help in dealing with the changing worlds of business, generally taking refuge in the myth and folklore of an earlier day. Whatever the reason, there has been no systematic continuing attention paid to the business sector and to the way it affects all segments of the public." Nearly 15 years ago, A. A. Berle called attention to the arrival of the "paraproprietal" society in which the very concept of private ownership was being distorted beyond any meaning by

institutional holdings of equity securities. Father P. P. Harbrecht pointed to the movement of pension funds and other financial institutions towards positions of control in many corporations. J. K. Galbraith added the word "technostructure" to our vocabulary in reference to the new breed of managers and technicians. There are substantial bodies of literature dealing with corporate diversification and the conglomerate merger movement, increasing overall concentration of business, the growing role of research and development in corporate survival, the rise of computer-based managerial sciences, and the growth of the multinational corporation. In fact, much of the best work on these topics has been done by congressional committees and government agencies. Further, there has been a great deal of concern, both inside and outside of government, over the special relationship that has arisen between the Department of Defense and its large prime contractors, and the blurring of the line between public and private functions which has resulted. Mr. Barber is probably quite correct in noting that soon a crucial problem will be demarcation of appropriate areas of public and private responsibilities in fields such as education, urban renewal, and pollution abatement, since some of the major corporations have recognized opportunities for profit in these activities which traditionally have been well within the public sector.

The primary contributions are the author's assembling of pertinent and sometimes alarming materials on all of these developments within the covers of one book and his presentation of these materials in untechnical and dramatic language. The book is not merely a popularization: Mr. Barber supplies perceptive and imaginative insights of his own.

However, the book is weakened by disregard of the rudimentary conventions of literary scholarship. Mr. Barber's readers would have been better served by references to earlier works and at least a short bibliography of less technical studies than

they are by the author's assertion that the subject has been ignored or dealt with only in outmoded ways. He uses statistics lavishly and very effectively, often for their shock value; but sources are not cited, and the critical or unconvinced reader will find no guide to the reliability of some rather surprising numbers. Mr. Barber predicts the future in what I consider to be annoyingly dogmatic terms and with evident aversion to use of the subjunctive mood.

This is a significant book, in that it collects and synthesizes a broad range of material in very well organized and clearly written form. And, as he reminds his readers frequently, the subject is of crucial importance.

—WILLIAM L. BALDWIN

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### Health planning

*Men, Money, and Medicine.* By Eli Ginzberg with Miriam Ostow. New York, Columbia University Press, 1969. 291 pp. \$8.50.

The senior author, a well-known economist, has collected in the present volume 19 of his recent articles and addresses dealing with such issues as the nationwide health programs, the health services industry of the country, the medical profession and allied health personnel, psychiatry and mental health. The articles are neither ponderous research reports nor glib editorials (so common in the professional journals) but highly readable essays which discuss their topics in the light of economic knowledge and common sense. The result is an interesting book which explores that important but controversial area of the national health policy where money and medicine intersect.

The issue of medical care, which in the last few years came to occupy a place of national interest, has been surrounded by many stereotypes which are widely repeated and just as widely accepted. The present book systematically reexamines the stereotypes and, quite often, raises the voice of caution and criticism. Thus, concerning the problem of medical services to the poor it argues cogently that an increase in the number of medical school graduates, or an

increase of the auxiliary health personnel, does not automatically guarantee that more physicians will be available to treat the ghetto population. "It would be naive to assume," it warns, "that an increased output of the medical schools in New Orleans or Birmingham would result in more physicians practicing in the Delta." In a similar vein, it takes up the matter of "overtreating" patients and raises the question whether a study of treating a wide range of conditions would not conclude that those patients who were treated least made the best progress. As another point it reviews the vague or elusive fields of ill health (such as mental health) where additional financial, and even therapeutic, input cannot be expected to result in surprisingly great changes of the existing situation.

It is refreshing to hear an economist arguing that money alone cannot solve our national health problems. The book advocates an overall, nationwide planning for, and a thorough reorganization of, the system of delivering health care. Its content deserves the attention of all concerned with our national health policy.

—JOHN KOSA

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### Towards institutional reform

*The Politics of Schools: A Crisis in Self-Government.* By Robert Bendiner. New York, Harper & Row, Publishers, Inc., 1969. 240 pp., bibliography. \$6.95.

Now that education is the largest single "industry" in the economy, and the fulcrum of upward mobility for millions of Americans, questions are increasingly raised concerning the validity of traditional educational institutions particularly the utility of the local lay school board. In his timely and informative book, Robert Bendiner provides insight into the problems confronting school boards, and, in so doing, sheds light on their long-term survivability.

Bendiner describes in highly readable language the actions of school boards in handling three of the major issues confronting the American educational system: racial integration, collective negotiations with teachers, and the quest for adequate funds. On the integration issue he



reports the experience of the "can't do" board of New Orleans, the "won't do" boards of Malvern, Long Island, and Boston, and the "did do" boards of Berkeley and Evanston, Ill. In a similar fashion, he describes the problems which collective negotiations posed for the Michigan cities of Flint and Ecorse and financial burdens confronting Baltimore and Buffalo. These descriptions provide valuable information and insight into the events surrounding several school board confrontations and are the strongest features of the book.

The author's descriptions lead inexorably to the conclusion that the school board as an institution is bankrupt economically and politically. Rather than recommending abandonment, however, he casts the plight of the school board against the backdrop of a larger problem—that of the cities. Citing the experience of Toronto and Nashville he recommends metropolitanism as a possible solution for both the cities and the school board.

By gathering together in one place the bits and pieces of information concerning the actions of a large number of school boards and reporting them in easily digestible form, the book performs a valuable service for the lay community. The author's compilation contains a decided call to action—to "do something" about the problems he lays bare with such clear and entertaining prose. But, the reader is left in a quandary of just what to do—and therein lies the rub. While the book is long on journalistic reporting, it is short on analysis. The incompleteness of the details surrounding any given confrontation and the sparsity of material devoted to analyzing why events occurred rather than just reporting them, all leave the reader with precious few guideposts for constructive action.

In short, the book is a useful first step. By gathering and reporting information concerning the viability of the local lay school board, the book focuses public attention on the inadequacies in this central educational institution. While Bendiner does not provide useful guidelines for public policy action, now that the issue is moved to the center stage, it should produce the public debate which is the necessary second stage towards possible institutional reform.

—JAMES A. BELASCO

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## Understanding productivity

*A Primer on Productivity.* By Solomon Fabricant.  
New York, Random House, Inc., 1969.  
206 pp., bibliography. \$4.95.

Strictly speaking, this book is not a primer. A primer has been defined as a small book of elementary principles and this book, although small, manages to go somewhat beyond what would seem to be elementary principles. It covers much of the findings of current productivity research and the problems of measurement and analysis involved in developing these findings.

Divided into five parts, the volume covers (a) the basic facts on productivity (what it is, the productivity record, national and industry measures), (b) the sources of higher productivity (labor, capital, "efficiency"), (c) the relation of productivity to other economic variables—wages prices, employment business cycles, (d) the role of economic policy and productivity, and finally (e) productivity abroad. While comprehensive in coverage, most of the subject areas are dealt with rather briefly, with concentration on the salient points.

The one conclusion that emerges from this little book, as it has from many of Dr. Fabricant's other works on productivity, such as his NBER Occasional Paper, "Basic Facts on Productivity," is that there is no single concept of productivity. Productivity stands for a family of concepts dealing with the ratio of output to input. It is a tool of analysis and the particular measure depends on the question being examined. For example, as Fabricant points out in the chapter on productivity and the rise in wages and salaries, the relevant measure of productivity for an analysis of hourly earnings and productivity is an output per man-hour measure. On the other hand, when examining the relationships between productivity and prices he argues that the output per unit of labor and capital is more useful. (In this connection it is unfortunate that as a short-hand the author uses the term "total productivity" for this latter measure. Because of data and other limitations the measure is limited to tangible capital and a labor input only partially adjusted for quality change and does not include all factor inputs.)

The book is a useful one, particularly for the general reader. It is written clearly and in non-technical language, but it is not superficial. Moreover, the subject will always be relevant (to use a

word overworked these days) for, as Fabricant points out, whatever the focal point of current public interest in economic matters it is a sure bet that productivity will be involved either directly or indirectly. The book can enhance the general understanding of this role. Unfortunately, however, for the general reader who is stimulated by these ideas, there is no reference in the book to where he can turn to obtain current information on productivity movements such as the quarterly and annual data published by the Bureau of Labor Statistics and included in the *Monthly Labor Review*.

—JEROME A. MARK  
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### Approaches to equal employment

*Programs to Employ the Disadvantaged.* Edited by Peter B. Doeringer. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1969. 261 pp.

These detailed narratives on nine private sector efforts to train and employ the disadvantaged dramatize the point that the success of these kinds of projects is hampered by many of the same characteristics of the labor market that gave rise to such program development.

Persons are disadvantaged in the labor market because employers and potential fellow employees discriminate against them on racial and ethnic grounds; because social forces have established school systems which make them into unemployables and which are prevented from responding to their needs; because they are still residentially confined to areas where it is often uneconomical for plants to locate; because the relative costs of hiring them and raising their productivity are often excessive, in view of the multitude of ways in which they are disadvantaged; because mitigating their disadvantage seems to run counter to the short-term interests of those trade union members who are but two steps ahead of them in the labor market queue; and because certain government agencies, presumably charged with the responsibility of supplying services on an equitable basis to all, remain at best indifferent to efforts to equalize labor market opportunities.

The contributors to this book describe: the efforts by the Western Electric and Westinghouse

corporations to establish vestibule plants to provide work habit and skill training to the disadvantaged in Newark and Pittsburgh, respectively; IBM's "act of corporate citizenship"—the establishment of a manufacturing facility to employ black people in the heart of Brooklyn's Bedford-Stuyvesant area; the Equitable Life Assurance Society program in New York to prepare high school dropouts for white-collar jobs; the joint union-management program in the steel industry to upgrade employees who are kept from advancing by their basic educational deficiencies; the attempt by the General Electric company, Cleveland school administrators, and various members of its business community to establish a training center which would train young persons for employment in a number of particular firms in that city; the program of the Workers' Defense League, an organization launched by A. Phillip Randolph, to aid black youth who want to enter the typically segregated craft union apprenticeship programs; and, last, The Defense Department's Project 100,000, which was supposedly designed to enhance the future labor market prospects of disadvantaged youth by accepting them into the military on an experimental basis.

The descriptions of the programs graphically illustrate for those who will design or intend to operate projects of this sort the obstacles placed in their way by, for example in the case of Project 100,000, reluctant State employment services; or, in the case of the Workers' Defense League program, union journeymen who are unwilling to train black youth who want to learn something during their apprenticeships.

Each of the program descriptions is followed by terse discussions. One raises the questions of whether vestibule plants will be treated by companies and government as substitutes for nondiscriminatory employment policies at higher occupational levels; and of how managers strike a balance between the need for some efficiency in production and the degree of disadvantage which potential trainees may evidence before they are rejected. Doeringer ends the book with a short piece which nicely highlights some major issues in this area.

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## Meeting practical needs

*Private Vocational Schools and Their Students: Limited Objectives and Unlimited Opportunities.* By A. Harvey Belitsky. Cambridge, Mass., Schenkman Publishing Co., Inc., 1969. 186 pp. \$7.95.

With this short volume, Dr. Belitsky has significantly added to our knowledge of private vocational schools and their potential role in implementing the Nation's broad manpower goals. This is a careful study, but not a dull one.

First, the author describes the 7,000 private vocational schools with their 1.5 million students as filling an important need for the many young people who never complete high school or who complete high school but desire additional practical training. These schools have a threefold goal: to provide the student with immediate practical tools of a particular occupation, to supply employers with employees who have the required training, and to make a profit on this activity. Dr. Belitsky shows the positive side of this profit orientation by emphasizing the flexibility of private vocational schools in meeting the practical needs of employers and students.

One might fault the author by pointing out the importance of broader, longer run orientations in education. Here, Dr. Belitsky emphasizes that this, more properly is the role of public schools. To my mind, the case for private vocational schools with their limited objectives is greatly strengthened by the findings from a survey made of recent students of private vocational schools. According to the survey, a majority of these former students rated their schools as above average or better. Since many of these students are high school dropouts, it can be argued that the limited practical objective of vocational schools is an operationally correct and socially useful activity. Other evidence presented in this book supports that position.

Equally interesting are Dr. Belitsky's efforts to demonstrate how private vocational schools can be used more extensively to train the disadvantaged. At present these schools have been involved to some extent in a number of government-sponsored programs, including manpower training and vocational rehabilitation. The basis for Dr. Belitsky's argument is that these private schools are operating at only 60 percent of capacity and

are capable of providing quickly and at low cost the training needed by the disadvantaged. Public vocational schools are often seen as responding less rapidly to changing demands of students and employers and as being fettered by procrustean format and power structure of public education.

Finally, Dr. Belitsky makes a convincing case for improved counseling for vocational education and increased aid to the potential vocational student. Into this general case he weaves the argument for increased recognition and use of private vocational schools.

While the reviewer is probably more impressed with some of the problems of the private vocational schools than Dr. Belitsky appears to be, nonetheless, this book definitely fills a gap in our knowledge of the labor market and presents a strong case for increased recognition of these schools. Labor economists, manpower specialists, vocational counselors, personnel managers, and public officials would profit by reading this book.

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### Introducing new benchmarks

In the following section, 11 tables based on employment estimates from the Bureau of Labor Statistics establishment payroll survey have been adjusted to reflect complete employment counts as of March 1969.

These adjustments, which affect most published categories, mean that the employment series appearing in tables 11, 13, and 14 have been revised back to March 1968. Data on hours, earnings, and labor turnover (tables 15 through 22), which are weighted by employment, may also have been revised as a result of the changes in employment levels.

New benchmarks are determined in March of each year for the most detailed industrial classifications on which estimates are available. The corresponding current estimates are adjusted to the new levels which then are aggregated through successively inclusive series to total nonagricultural employment. The March 1969 total benchmark count of 69 million workers on nonagricultural payrolls was higher than the original estimate by 128,000 or 0.2 percent. Adjustments amounted to less than 1 percent for all major divisions except mining, which was revised by 1.5 percent.

About 30 percent of the nation's nonagricultural wage and salaried workers are employed in manufacturing industries. Of the 21 major groups in this division, 19 were revised by less than 2 percent. Revisions were somewhat larger for some of the 4-digit component industries, but two-thirds of these differed by less than 3 percent and only 12 percent differed by 5 percent or more.

Differences between the benchmarks and estimates result not only from sampling and response errors, but also from changes in industrial classifications of individual establishments which are not reflected in the estimates level until the data are adjusted to new benchmarks. At the more detailed industry levels, particularly within manufacturing, changes in classification are the major cause of benchmark adjustment. Another, gener-

ally infrequent, cause of benchmark adjustment is improvements in the quality of the benchmark data.

The difference between estimates and benchmarks is assumed to have accumulated in constant increments over the previous 12 months. Most series, therefore, are adjusted by wedging or tapering out the difference over the period from the new benchmark to the preceding one. Estimates subsequent to the new benchmark are revised by projecting the new level forward to the current month, using the trend shown by the reporting sample.

Benchmarks are not available for hours, earnings, and labor turnover. The levels are derived from the BLS reporting sample only. For primary estimating cells the series are computed directly from reported figures. Series for more inclusive categories, however, require a weighting mechanism to yield meaningful averages. Generally speaking, the introduction of new benchmarks does not change average weekly hours, average hourly earnings, and labor turnover rates for broader groupings by more than one-tenth of an hour, one cent, or one-tenth of one percentage point, respectively.

Hours and earnings for workers in the transportation and public utilities and services divisions are also being introduced in tables 17-21 of this issue. The addition of these two series means that hours and earnings estimates are now being published for all divisions in the private non-agricultural economy.

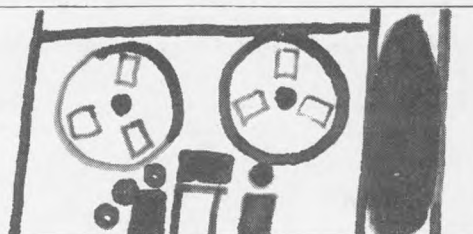
Revised seasonally adjusted series reflect experience through February 1970. Seasonal factors for current use along with a detailed discussion of the benchmark adjustment appear in the June 1970 issue of *Employment and Earnings*.

—GERALD STORCH

Division of Industry Employment Statistics



# Current Labor Statistics



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1. Employment status of the noninstitutional population, 16 years and over, 1947 to date

[In thousands]

Year	Total non-institutional population	Total labor force		Civilian labor force						Not in labor force
		Number	Percent of population	Total	Employed			Unemployed		
					Total	Agriculture	Non-agricultural industries	Number	Percent of labor force	
1947	103,418	60,941	58.9	59,350	57,039	7,891	49,148	2,311	3.9	42,477
1948	104,527	62,080	59.4	60,621	58,344	7,629	50,713	2,276	3.8	42,447
1949	105,611	62,903	59.6	61,286	57,649	7,656	49,990	3,637	5.9	42,708
1950	106,645	63,858	59.9	62,208	58,920	7,160	51,760	3,288	5.3	42,787
1951	107,721	65,117	60.4	62,017	59,962	6,726	53,239	2,055	3.3	42,604
1952	108,823	65,730	60.4	62,138	60,254	6,501	53,753	1,883	3.0	43,093
1953	110,601	66,560	60.2	63,015	61,181	6,261	54,922	1,834	2.9	44,041
1954	111,671	66,993	60.0	63,643	60,110	6,206	53,903	3,532	5.5	44,678
1955	112,732	68,072	60.4	65,023	62,171	6,449	55,724	2,852	4.4	44,660
1956	113,811	69,409	61.0	66,552	63,802	6,283	57,517	2,750	4.1	44,402
1957	115,065	69,729	60.6	66,929	64,071	5,947	58,123	2,859	4.3	45,336
1958	116,363	70,275	60.4	67,639	63,036	5,586	57,450	4,602	6.8	46,088
1959	117,881	70,921	60.2	68,369	64,630	5,565	59,065	3,740	5.5	46,960
1960	119,759	72,142	60.2	69,628	65,778	5,458	60,318	3,852	5.5	47,617
1961	121,343	73,031	60.2	70,459	65,746	5,200	60,546	4,714	6.7	48,312
1962	122,981	73,442	59.7	70,614	66,702	4,944	61,759	3,911	5.5	49,539
1963	125,154	74,571	59.6	71,833	67,762	4,687	63,076	4,070	5.7	50,583
1964	127,224	75,830	59.6	73,091	69,305	4,523	64,782	3,786	5.2	51,394
1965	129,236	77,178	59.7	74,455	71,088	4,361	66,726	3,366	4.5	52,058
1966	131,180	78,893	60.1	75,770	72,895	3,979	68,915	2,875	3.8	52,288
1967	133,319	80,793	60.6	77,347	74,372	3,844	70,527	2,975	3.8	52,527
1968	135,562	82,272	60.7	78,737	75,920	3,817	72,103	2,817	3.6	53,291
1969	137,841	84,239	61.1	80,733	77,902	3,606	74,296	2,831	3.5	53,602

2. Employment status, by color, sex and age, seasonally adjusted,<sup>1</sup> quarterly averages

[In thousands]

Characteristic	1970	1969				1968				1967				Annual average	
	1st	4th	3d	2d	1st	4th	3d	2d	1st	4th	3d	2d	1st	1969	1968
<b>WHITE</b>															
Civilian labor force	73,316	72,475	71,942	71,466	71,285	70,392	70,045	69,851	69,587	69,440	68,944	68,210	68,226	71,778	69,975
Men, 20 years and over	42,245	41,956	41,842	41,639	41,656	41,423	41,373	41,235	41,230	41,175	40,972	40,673	40,607	41,772	41,317
Women, 20 years and over	24,513	24,156	23,949	23,684	23,566	23,122	22,843	22,741	22,565	22,632	22,276	21,775	21,709	23,838	22,820
Both sexes, 16-19 years	6,558	6,363	6,151	6,143	6,036	5,847	5,829	5,875	5,792	5,633	5,696	5,762	5,910	6,168	5,838
Employed	70,527	70,096	69,575	69,260	69,135	68,267	67,804	67,617	67,311	67,032	66,576	65,888	65,970	69,518	67,750
Men, 20 years and over	41,180	41,091	40,995	40,871	40,926	40,677	40,553	40,405	40,376	40,300	40,101	39,772	39,775	40,978	40,503
Women, 20 years and over	23,587	23,327	23,120	22,891	22,794	22,372	22,662	21,987	21,777	21,766	21,416	20,963	20,902	23,032	22,052
Both sexes, 16-19 years	5,760	5,678	5,460	5,498	5,415	5,218	5,185	5,225	5,158	4,966	5,059	5,153	5,293	5,508	5,195
Unemployed	2,789	2,379	2,367	2,206	2,150	2,125	2,241	2,234	2,276	2,408	2,368	2,322	2,256	2,260	2,225
Men, 20 years and over	1,065	865	847	768	730	746	820	830	854	875	871	901	832	794	814
Women, 20 years and over	926	829	829	793	772	750	777	754	788	866	860	812	807	806	768
Both sexes, 16-19 years	798	685	691	645	648	629	644	650	634	667	637	609	617	660	643
Unemployment rate	3.8	3.3	3.3	3.1	3.0	3.0	3.2	3.2	3.3	3.5	3.4	3.4	3.3	3.1	3.2
Men, 20 years and over	2.5	2.1	2.0	1.8	1.8	1.8	2.0	2.0	2.1	2.1	2.1	2.2	2.0	1.9	2.0
Women, 20 years and over	3.8	3.4	3.5	3.3	3.3	3.2	3.4	3.3	3.5	3.8	3.9	3.7	3.7	3.4	3.4
Both sexes, 16-19 years	12.2	10.8	11.2	10.5	10.7	10.8	11.0	11.1	10.9	11.8	11.2	10.6	10.4	10.7	11.0
<b>NEGRO AND OTHER</b>															
Civilian labor force	9,224	9,056	8,979	8,867	8,914	8,737	8,700	8,828	8,762	8,733	8,632	8,632	8,599	8,954	8,759
Men, 20 years and over	4,700	4,622	4,593	4,549	4,554	4,513	4,517	4,562	4,543	4,496	4,507	4,505	4,500	4,579	4,535
Women, 20 years and over	3,682	3,616	3,595	3,535	3,550	3,466	3,414	3,467	3,433	3,444	3,348	3,347	3,362	3,574	3,446
Both sexes, 16-19 years	842	818	791	783	810	758	769	799	786	793	777	780	737	801	778
Employed	8,598	8,500	8,394	8,271	8,371	8,164	8,132	8,233	8,147	8,073	8,006	7,986	7,974	8,384	8,169
Men, 20 years and over	4,498	4,445	4,416	4,382	4,397	4,335	4,349	4,388	4,351	4,305	4,328	4,303	4,299	4,410	4,356
Women, 20 years and over	3,468	3,429	3,372	3,307	3,352	3,264	3,205	3,246	3,200	3,191	3,112	3,115	3,118	3,365	3,229
Both sexes, 16-19 years	632	626	606	582	622	565	578	599	596	577	566	568	557	609	584
Unemployed	626	556	585	596	543	573	568	595	615	660	626	646	625	570	590
Men, 20 years and over	201	177	177	167	157	178	168	174	192	191	179	202	201	169	179
Women, 20 years and over	215	187	223	228	198	204	209	221	233	253	236	232	244	209	217
Both sexes, 16-19 years	210	192	185	201	188	191	191	200	190	216	211	212	180	192	194
Unemployment rate	6.8	6.1	6.5	6.7	6.1	6.6	6.5	6.7	7.0	7.6	7.3	7.5	7.3	6.4	6.7
Men, 20 years and over	4.3	3.8	3.9	3.7	3.4	3.9	3.7	3.8	4.2	4.2	4.0	4.5	4.5	3.7	3.9
Women, 20 years and over	5.8	5.2	6.2	6.4	5.6	5.9	6.1	6.4	6.8	7.3	7.0	6.9	7.3	5.8	6.3
Both sexes, 16-19 years	24.9	23.5	23.4	25.7	23.2	25.3	24.8	25.0	24.2	27.2	27.2	27.2	24.4	24.0	24.9

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1970 issue of *Employment and Earnings*.

## 3. Full- and part-time status of the civilian labor force

[In thousands—not seasonally adjusted]

Employment status	1970					1969								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
<b>FULL TIME</b>															
Civilian labor force.....	69,383	69,255	69,116	69,018	68,869	69,204	69,296	69,491	70,350	73,713	73,514	72,365	67,818	69,700	68,332
Employed:															
Full-time schedules <sup>1</sup> .....	64,413	64,166	64,108	63,997	64,155	65,302	65,517	65,594	66,206	68,854	68,471	67,011	64,346	65,503	64,225
Part-time for economic reasons.....	2,128	2,301	2,139	2,117	2,135	1,998	1,916	1,955	2,069	2,607	2,456	2,522	1,672	2,055	1,970
Unemployed, looking for full-time work.....	2,842	2,787	2,869	2,904	2,579	1,904	1,864	1,942	2,075	2,251	2,587	2,831	1,799	2,142	2,138
Unemployment rate.....	4.1	4.0	4.2	4.2	3.7	2.8	2.7	2.8	2.9	3.1	3.5	3.9	2.7	3.1	3.1
<b>PART TIME</b>															
Civilian labor force.....	12,358	12,706	12,574	12,266	11,850	12,212	12,131	12,019	10,634	8,803	9,283	9,991	11,745	11,032	10,405
Employed (voluntary part-time).....	11,816	11,940	11,711	11,375	11,023	11,488	11,284	11,122	9,751	8,185	8,688	9,422	11,245	10,343	9,726
Unemployed, looking for part-time work.....	542	765	863	890	827	724	847	898	883	618	594	568	500	689	679
Unemployment rate.....	4.4	6.0	6.9	7.3	7.0	5.9	7.0	7.5	8.3	7.0	6.4	5.7	4.3	6.2	6.5

<sup>1</sup> Employed persons with a job but not at work are distributed proportionately among the full- and part-time employed categories.4. Employment and unemployment, by age and sex, seasonally adjusted<sup>1</sup>

[In thousands]

Employment status	1970					1969								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
<b>TOTAL</b>															
Total labor force.....	85,783	86,143	86,087	85,590	85,599	85,023	84,872	85,051	84,868	84,517	84,310	84,028	83,652	84,239	82,272
Civilian labor force.....	82,555	82,872	82,769	82,249	82,213	81,583	81,379	81,523	81,325	80,987	80,789	80,504	80,130	80,733	78,737
Employed.....	78,449	78,924	79,112	78,822	79,041	78,737	78,528	78,445	78,194	78,142	77,931	77,741	77,321	77,902	75,920
Agriculture.....	3,613	3,586	3,550	3,499	3,426	3,435	3,434	3,446	3,498	3,614	3,561	3,683	3,777	3,606	3,817
Nonagriculture.....	74,836	75,338	75,562	75,323	75,615	75,302	75,094	74,999	74,696	74,528	74,370	74,058	73,544	74,296	72,103
Unemployed.....	4,106	3,948	3,657	3,427	3,172	2,846	2,851	3,078	3,131	2,845	2,858	2,763	2,809	2,831	2,817
<b>MEN, 20 YEARS AND OVER</b>															
Total labor force.....	50,020	50,032	49,920	49,707	49,736	49,534	49,544	49,642	49,642	49,488	49,405	49,334	49,290	49,406	48,834
Civilian labor force.....	47,226	47,199	47,060	46,836	46,826	46,578	46,531	46,599	46,586	46,443	46,338	46,236	46,194	46,351	45,852
Employed.....	45,593	45,667	45,709	45,534	45,674	45,553	45,533	45,511	45,465	45,485	45,335	45,303	45,251	45,388	44,859
Agriculture.....	2,625	2,602	2,537	2,479	2,473	2,499	2,482	2,575	2,593	2,670	2,646	2,676	2,713	2,636	2,816
Nonagriculture.....	42,968	43,065	43,172	43,055	43,201	43,054	43,051	42,936	42,872	42,815	42,689	42,627	42,538	42,752	42,043
Unemployed.....	1,633	1,532	1,351	1,302	1,152	1,025	998	1,088	1,121	958	1,003	933	943	963	993
<b>WOMEN, 20 YEARS AND OVER</b>															
Civilian labor force.....	27,885	28,274	28,295	28,066	28,073	27,875	27,671	27,767	27,634	27,664	27,524	27,341	27,055	27,413	26,266
Employed.....	26,476	27,022	27,016	26,925	27,060	26,897	26,663	26,699	26,543	26,626	26,512	26,322	26,041	26,397	25,281
Agriculture.....	567	571	583	630	586	585	555	554	535	582	547	610	622	593	606
Nonagriculture.....	25,909	26,451	26,433	26,295	26,474	26,312	26,108	26,145	26,008	26,044	25,965	25,712	25,419	25,804	24,675
Unemployed.....	1,409	1,252	1,279	1,141	1,013	978	1,008	1,068	1,091	1,038	1,012	1,019	1,014	1,015	985
<b>BOTH SEXES, 16-19 YEARS</b>															
Civilian labor force.....	7,444	7,399	7,414	7,347	7,314	7,130	7,177	7,157	7,105	6,880	6,927	6,927	6,881	6,970	6,618
Employed.....	6,380	6,235	6,387	6,363	6,307	6,287	6,332	6,235	6,186	6,031	6,084	6,116	6,029	6,117	5,780
Agriculture.....	421	413	430	390	367	351	397	317	370	362	368	397	442	377	394
Nonagriculture.....	5,959	5,822	5,957	5,973	5,940	5,936	5,935	5,918	5,816	5,669	5,716	5,719	5,587	5,739	5,385
Unemployed.....	1,064	1,164	1,027	984	1,007	843	845	922	919	849	843	811	852	853	839

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonallyadjusted series, see the February 1970 issue of *Employment and Earnings*.

5. Employment totals, by occupation, with unemployment rates, seasonally adjusted,<sup>1</sup> quarterly averages

Characteristic	1970	1969				1968				1967				Annual average	
	1st	4th	3d	2d	1st	4th	3d	2d	1st	4th	3d	2d	1st	1969	1968
<b>EMPLOYMENT (in thousands)</b>	78,992	78,570	78,090	77,550	77,418	76,409	76,017	75,898	75,392	75,121	74,630	73,911	73,862	77,902	75,921
<b>White-collar workers</b>	37,938	37,509	36,923	36,677	36,264	35,906	35,732	35,419	35,140	34,888	34,456	33,943	33,635	36,845	35,551
Professional and technical	11,026	10,936	10,764	10,740	10,638	10,473	10,392	10,295	10,142	10,067	9,952	9,761	9,734	10,769	10,325
Managers, officials, and proprietors	8,215	8,141	7,970	7,993	7,841	7,897	7,827	7,661	7,716	7,633	7,630	7,453	7,261	7,987	7,776
Clerical workers	13,906	13,655	13,478	13,281	13,171	12,876	12,823	12,816	12,694	12,624	12,343	12,250	12,115	13,397	12,803
Sales workers	4,791	4,777	4,711	4,663	4,614	4,660	4,690	4,647	4,588	4,564	4,531	4,479	4,525	4,692	4,647
<b>Blue-collar workers</b>	28,236	28,389	28,425	27,931	28,202	27,774	27,491	27,513	27,297	27,279	27,343	27,175	27,240	28,237	27,525
Craftsmen and foremen	10,264	10,265	10,174	10,044	10,298	10,147	9,972	10,003	9,936	9,827	9,790	9,853	9,918	10,193	10,015
Operatives	14,168	14,412	14,589	14,208	14,264	14,051	13,911	13,956	13,896	13,918	13,999	13,787	13,822	14,372	13,955
Nonfarm laborers	3,804	3,712	3,662	3,679	3,640	3,576	3,608	3,554	3,465	3,534	3,554	3,535	3,500	3,672	3,555
<b>Service workers</b>	9,673	9,589	9,493	9,467	9,558	9,411	9,385	9,395	9,337	9,330	9,277	9,276	9,418	9,528	9,381
<b>Farmworkers</b>	3,153	3,089	3,231	3,417	3,438	3,346	3,400	3,507	3,649	3,654	3,556	3,448	3,584	3,292	3,464
<b>Unemployment rate</b>	401	3.6	3.6	3.5	3.4	3.4	3.6	3.6	3.7	3.9	3.9	3.9	3.8	3.5	3.6
<b>White-collar workers</b>	2.4	2.2	2.2	2.0	2.0	1.9	2.0	2.0	2.0	2.2	2.2	2.0	2.1	2.1	2.0
Professional and technical	1.9	1.5	1.4	1.3	1.1	1.2	1.3	1.2	1.2	1.3	1.3	1.4	1.4	1.3	1.2
Managers, officials, and proprietors	1.0	.9	1.0	.9	.9	1.0	1.1	.9	.9	1.0	.9	.9	.9	.9	1.0
Clerical workers	3.3	3.2	3.2	2.8	2.9	2.8	2.9	3.0	3.1	3.4	3.3	2.8	3.0	3.0	3.0
Sales workers	3.2	2.8	3.0	2.9	2.9	2.8	2.6	2.7	3.0	3.2	3.6	2.9	3.2	2.9	2.8
<b>Blue-collar workers</b>	4.9	4.3	4.0	3.8	3.7	3.8	4.2	4.0	4.4	4.5	4.5	4.6	4.2	3.9	4.1
Craftsmen and foremen	2.6	2.2	2.2	2.1	2.1	2.2	2.4	2.4	2.5	2.5	2.3	2.8	2.3	2.2	2.4
Operatives	5.7	5.0	4.4	4.3	4.1	4.3	4.5	4.3	4.8	5.1	5.1	5.0	4.7	4.4	4.5
Nonfarm laborers	7.9	6.9	7.2	6.5	6.4	6.7	7.4	7.0	7.7	7.8	7.6	8.0	7.2	6.7	7.2
<b>Service workers</b>	4.7	3.9	4.5	4.4	4.0	4.3	4.5	4.6	4.3	4.9	4.5	4.2	4.5	4.2	4.5
<b>Farmworkers</b>	2.1	1.8	2.2	1.9	1.6	1.6	2.4	2.3	1.9	2.3	2.4	2.4	2.2	1.9	2.1

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of a seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of *Employment and Earnings*.

## 6. Unemployed persons, by reason for unemployment

(In thousands—not seasonally adjusted)

Reason for unemployment, age, and sex	1970					1969								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
<b>Total, 16 years and over</b>	3,384	3,552	3,733	3,794	3,406	2,628	2,710	2,839	2,958	2,869	3,182	3,400	2,299	2,831	2,817
Lost last job	1,658	1,669	1,797	1,787	1,595	1,133	939	882	823	894	979	875	892	1,017	1,070
Left last job	447	507	441	473	485	378	421	451	586	507	459	448	325	436	431
Reentered labor force	944	1,001	1,143	1,158	999	825	1,011	1,093	1,105	997	1,010	1,275	796	965	909
Never worked before	333	375	351	377	328	292	339	414	445	471	734	802	286	413	407
<b>Male, 20 years and over</b>	1,403	1,498	1,606	1,678	1,456	1,052	909	906	914	888	945	905	810	963	993
Lost last job	942	988	1,059	1,144	997	693	524	458	440	469	534	427	438	556	599
Left last job	170	214	200	185	197	150	141	141	209	192	170	183	148	164	167
Reentered labor force	251	261	312	310	230	188	226	267	235	200	195	262	204	216	205
Never worked before	40	34	35	39	32	20	18	40	30	24	46	33	19	27	22
<b>Female, 20 years and over</b>	1,205	1,171	1,264	1,238	1,086	840	994	1,097	1,202	1,119	987	1,058	867	1,015	985
Lost last job	562	497	542	451	418	303	309	314	288	310	307	336	344	335	341
Left last job	174	188	156	200	177	138	183	209	237	196	184	172	107	171	167
Reentered labor force	435	439	530	529	437	354	457	501	596	549	434	480	377	455	422
Never worked before	34	47	36	58	54	46	45	72	81	64	62	69	39	55	55
<b>Both sexes, 16 to 19 years</b>	776	883	863	878	864	736	807	836	842	865	1,250	1,437	623	853	839
Lost last job	155	184	196	192	180	137	106	110	95	115	138	112	110	126	130
Left last job	103	104	85	88	111	90	97	101	140	119	105	93	70	101	97
Reentered labor force	259	301	302	319	331	283	328	324	274	248	380	533	214	294	281
Never worked before	259	293	280	280	241	226	276	301	334	383	627	699	228	331	330

7. Unemployment rates, by age and sex, seasonally adjusted <sup>1</sup>

Age and sex	1970					1969								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
<b>TOTAL</b>															
16 years and over.....	5.0	4.8	4.4	4.2	3.9	3.5	3.5	3.8	3.8	3.5	3.5	3.4	3.5	3.5	3.6
16 to 19 years.....	14.3	15.7	13.9	13.4	13.8	11.8	11.8	12.9	12.9	12.3	12.2	11.7	12.4	12.2	12.7
16 and 17 years.....	15.6	18.7	15.7	16.3	17.2	13.7	14.3	16.5	16.1	15.8	14.6	13.5	14.0	14.5	14.7
18 and 19 years.....	13.8	13.8	12.4	11.7	11.6	10.2	9.2	10.4	10.6	9.8	10.3	10.1	11.5	10.5	11.2
20 to 24 years.....	8.1	7.7	6.8	7.3	6.1	5.8	5.8	6.4	6.5	5.4	5.8	5.4	5.5	5.7	5.8
25 years and over.....	3.3	3.1	3.0	2.6	2.4	2.2	2.2	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.3
25 to 54 years.....	3.4	3.2	3.1	2.7	2.5	2.3	2.1	2.4	2.5	2.3	2.3	2.3	2.3	2.3	2.3
55 years and over.....	3.3	2.8	2.7	2.4	2.0	2.1	1.9	2.3	2.2	2.0	2.0	2.0	1.7	2.0	2.2
<b>MALE</b>															
16 years and over.....	4.4	4.2	3.6	3.6	3.3	2.9	2.9	3.1	3.2	2.8	2.9	2.7	2.7	2.8	2.9
16 to 19 years.....	15.0	15.2	12.5	13.0	12.6	11.0	11.7	11.8	12.0	11.3	11.8	10.7	11.1	11.4	11.6
16 and 17 years.....	16.4	17.2	14.6	15.4	14.9	13.1	13.7	14.4	15.0	15.5	14.4	13.0	13.9	13.7	13.9
18 and 19 years.....	14.6	13.9	10.8	11.0	10.8	9.3	8.9	9.6	9.4	7.8	9.7	8.5	9.2	9.3	9.6
20 to 24 years.....	7.7	7.9	6.4	6.9	6.1	5.5	5.3	6.3	6.4	4.5	5.3	4.8	4.8	5.1	5.1
25 years and over.....	2.9	2.6	2.4	2.2	2.0	1.8	1.7	1.9	1.8	1.7	1.7	1.6	1.7	1.7	1.8
25 to 54 years.....	2.8	2.6	2.3	2.1	2.0	1.7	1.4	1.8	1.8	1.6	1.7	1.5	1.7	1.6	1.7
55 years and over.....	3.1	2.8	2.8	2.4	2.1	2.2	1.9	2.2	2.0	2.0	1.9	1.8	1.6	1.9	2.1
<b>FEMALE</b>															
16 years and over.....	5.9	5.7	5.7	5.1	4.8	4.5	4.5	4.9	5.0	4.8	4.6	4.7	4.8	4.7	4.8
16 to 19 years.....	13.4	16.4	15.6	13.9	15.2	12.8	11.9	14.2	14.2	13.6	12.7	13.0	14.0	13.3	14.0
16 and 17 years.....	14.6	20.6	17.0	17.3	20.3	14.7	15.0	19.2	17.7	16.2	14.8	14.3	14.2	15.5	15.9
18 and 19 years.....	12.9	13.7	14.3	12.7	12.4	11.2	9.6	11.3	12.0	12.0	11.0	11.9	14.1	11.8	12.8
20 to 24 years.....	8.7	7.5	7.2	7.6	6.2	6.1	6.5	6.5	6.6	6.3	6.3	6.0	6.4	6.3	6.7
25 years and over.....	4.2	3.8	4.0	3.3	3.0	3.0	3.1	3.4	3.4	3.3	3.2	3.3	3.1	3.2	3.2
25 to 54 years.....	4.3	4.2	4.4	3.6	3.3	3.3	3.4	3.6	3.7	3.6	3.5	3.6	3.4	3.5	3.4
55 years and over.....	3.6	2.7	2.5	2.3	1.7	1.9	2.0	2.5	2.5	2.1	2.3	2.3	1.9	2.2	2.3

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1970 issue of *Employment and Earnings*.

8. Unemployment indicators, seasonally adjusted <sup>1</sup>

[In percent]

Selected categories	1970					1969								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
Total (all civilian workers).....	5.0	4.8	4.4	4.2	3.9	3.5	3.5	3.8	3.8	3.5	3.5	3.4	3.5	3.5	3.6
Men, 20 years and over.....	3.5	3.2	2.9	2.8	2.5	2.2	2.1	2.3	2.4	2.1	2.2	2.0	2.0	2.1	2.2
Women, 20 years and over.....	5.1	4.4	4.5	4.1	3.6	3.5	3.6	3.8	3.9	3.8	3.7	3.7	3.7	3.7	3.8
Both sexes, 16-19 years.....	14.3	15.7	13.9	13.4	13.8	11.8	11.8	12.9	12.9	12.3	12.2	11.7	12.4	12.2	12.7
White.....	4.6	4.3	4.1	3.8	3.6	3.2	3.2	3.5	3.5	3.2	3.2	3.0	3.1	3.1	3.2
Negro and other.....	8.0	8.7	7.1	7.0	6.3	5.7	6.2	6.6	6.7	6.4	6.5	6.8	6.4	6.4	6.7
Married men.....	2.6	2.4	2.2	2.0	1.8	1.7	1.5	1.6	1.7	1.5	1.6	1.5	1.5	1.5	1.6
Full-time workers.....	4.7	4.4	4.0	3.7	3.4	3.2	3.1	3.1	3.3	3.1	3.1	3.1	3.1	3.1	3.1
Unemployed 15 weeks and over <sup>2</sup> .....	.7	.7	.7	.6	.5	.5	.5	.4	.5	.5	.5	.5	.5	.5	.5
State insured <sup>3</sup> .....	3.6	3.1	2.7	2.7	2.5	2.4	2.4	2.2	2.2	2.1	2.2	2.1	2.0	2.1	2.2
Labor force time lost <sup>4</sup> .....	5.4	5.1	4.8	4.5	4.2	3.9	4.0	4.3	4.3	4.0	4.0	3.8	3.8	3.9	4.0
<b>OCCUPATION</b>															
White-collar workers.....	2.8	2.9	2.7	2.3	2.1	2.1	2.1	2.4	2.2	2.2	2.2	2.1	2.0	2.1	2.0
Professional and managerial.....	1.7	1.7	1.8	1.4	1.3	1.5	1.1	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1
Clerical workers.....	3.9	4.0	3.6	3.2	3.1	2.8	3.5	3.4	3.2	3.2	3.2	3.0	2.9	3.0	3.0
Sales workers.....	4.4	4.1	3.5	3.4	2.8	2.6	2.2	3.5	2.8	2.9	3.2	2.8	2.9	2.9	2.8
Blue-collar workers.....	6.2	5.7	5.2	5.0	4.6	4.3	4.2	4.2	4.4	3.8	3.8	3.7	3.8	3.9	4.1
Craftsmen and foremen.....	4.2	3.5	3.1	2.5	2.3	2.3	2.1	2.4	2.6	2.1	1.9	1.9	2.3	2.2	2.4
Operatives.....	6.7	6.3	6.2	6.0	5.1	5.0	4.9	4.9	4.7	4.2	4.2	4.3	4.1	4.5	4.4
Nonfarm laborers.....	9.1	8.8	7.4	7.7	8.5	7.4	6.9	6.5	7.6	6.8	7.1	6.1	6.5	6.7	7.2
Service workers.....	4.9	5.0	4.9	4.8	4.5	3.6	4.0	4.2	4.8	4.5	4.3	4.4	4.2	4.2	4.5
<b>INDUSTRY</b>															
Nonagricultural private wage and salary workers <sup>5</sup> .....	5.2	4.8	4.6	4.3	3.9	3.6	3.6	3.8	3.9	3.5	3.5	3.5	3.5	3.5	3.6
Construction.....	11.9	8.1	8.1	7.9	7.1	6.0	5.4	7.3	7.4	7.0	5.9	5.1	5.7	6.0	6.9
Manufacturing.....	5.2	4.7	4.7	4.6	3.8	3.8	3.7	3.6	3.7	2.9	3.2	3.3	3.1	3.3	3.3
Durable goods.....	4.9	4.9	4.8	4.7	3.8	3.7	3.6	3.2	3.2	2.3	3.1	3.2	2.9	3.0	3.0
Nondurable goods.....	5.7	4.5	4.6	4.4	3.8	3.9	3.9	4.2	4.3	3.7	3.3	3.4	3.4	3.7	3.7
Transportation and public utilities.....	3.3	3.9	3.1	2.4	2.9	2.4	2.4	2.9	2.0	2.0	2.0	1.9	2.4	2.2	2.0
Wholesale and retail trade.....	5.1	4.7	4.7	4.7	4.3	3.9	3.9	4.2	4.5	4.3	4.1	4.2	4.1	4.1	4.0
Finance and service industries.....	4.2	5.5	4.0	3.2	3.1	2.7	3.2	3.1	3.4	3.4	3.6	3.2	3.3	3.2	3.4
Government wage and salary workers.....	2.2	2.2	2.1	2.0	2.2	2.0	2.1	2.4	1.9	1.9	1.8	1.7	1.7	1.9	1.8
Agricultural wage and salary workers.....	9.3	5.9	6.4	5.8	6.2	6.5	5.2	6.3	6.5	6.5	8.9	5.6	5.3	6.1	6.3

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of *Employment and Earnings*.

<sup>2</sup> Unemployment rate calculated as a percent of civilian labor force.

<sup>3</sup> Insured unemployment under State programs as a percent of average covered employment.

<sup>4</sup> Man-hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force man-hours.

<sup>5</sup> Includes mining, not shown separately.

9. Duration of unemployment, seasonally adjusted <sup>1</sup>

[In thousands]

Period	1970					1969								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
Less than 5 weeks.....	2,219	2,295	1,995	1,973	1,756	1,515	1,558	1,882	1,756	1,646	1,656	1,578	1,720	1,629	1,594
5 to 14 weeks.....	1,214	1,075	1,154	1,016	914	893	912	882	995	854	824	812	639	827	810
15 weeks and over.....	612	569	545	465	409	392	389	363	392	385	400	385	400	375	412
15 to 26 weeks.....	352	372	363	306	276	272	249	233	240	250	233	255	263	242	256
27 weeks and over.....	260	197	182	159	133	120	140	130	152	135	167	130	137	133	156
15 weeks and over as a percent of civilian labor force.....	.7	.7	.7	.6	.5	.4	.4	.4	.4	.4	.4	.4	.5	.5	.5

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1970 issue of *Employment and Earnings*.

10. Unemployment insurance and employment service operations <sup>1</sup>

[All items except average benefits amounts are in thousands]

Item	1970				1969									
	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.
<b>Employment service:</b> <sup>2</sup>														
New applications for work.....	857	828	765	950	658	711	762	801	750	874	1,237	850	822	745
Nonfarm placements.....	351	328	295	326	311	372	463	503	471	469	512	437	454	397
<b>State unemployment insurance programs:</b>														
Initial claims <sup>3,4</sup> .....	1,333	1,078	1,169	1,529	1,363	866	745	655	731	1,105	710	613	756	709
Insured unemployment <sup>5</sup> (average weekly volume) <sup>6</sup> .....	1,770	1,798	1,874	1,847	1,375	1,030	864	840	948	1,021	852	906	1,090	1300
Rate of insured unemployment <sup>7</sup> .....	3.4	3.5	3.6	3.6	2.7	2.0	1.6	1.6	1.8	2.0	1.7	1.8	2.2	2.6
Weeks of unemployment compensated.....	6,743	6,956	6,517	6,418	4,692	3,054	3,156	3,104	3,496	3,626	3,123	3,519	4,496	4,998
Average weekly benefit amount for total unemployment.....	\$49.00	\$48.93	\$49.11	\$48.49	\$47.42	\$46.47	\$46.25	\$45.70	\$46.16	\$45.30	\$44.88	\$45.14	\$46.03	\$46.71
Total benefits paid.....	\$320,224	\$331,067	\$310,800	\$299,352	\$214,260	\$136,585	\$139,536	\$136,182	\$156,707	\$159,161	\$135,004	\$152,966	\$200,052	\$226,516
<b>Unemployment compensation for ex-servicemen:</b> <sup>8,9</sup>														
Initial claims <sup>3,6</sup> .....	39	42	38	44	39	30	29	26	27	32	26	20	22	24
Insured unemployment <sup>5</sup> (average weekly volume).....	70	69	66	61	48	38	32	32	37	36	30	29	35	40
Weeks of unemployment compensated.....	294	289	244	242	193	126	127	133	148	143	114	122	155	163
Total benefits paid.....	\$14,564	\$14,200	\$12,028	\$11,957	\$9,517	\$6,240	\$6,256	\$6,514	\$7,156	\$6,946	\$5,511	\$5,847	\$7,425	\$7,794
<b>Unemployment compensation for Federal civilian employees:</b> <sup>9,10</sup>														
Initial claims <sup>3</sup> .....	11	11	11	15	12	13	11	10	8	11	10	8	8	8
Insured unemployment <sup>5</sup> (average weekly volume).....	27	29	30	28	24	22	18	17	18	19	18	17	20	23
Weeks of unemployment compensated.....	118	128	109	110	101	75	76	74	77	78	69	73	88	94
Total benefits paid.....	\$5,824	\$6,192	\$5,239	\$5,194	\$4,748	\$3,465	\$3,494	\$3,163	\$3,497	\$3,597	\$3,155	\$3,318	\$4,038	\$4,265
<b>Railroad unemployment insurance:</b>														
Applications <sup>11</sup> .....	8	9	4	9	5	5	10	6	7	17	11	11	5	5
Insured unemployment (average weekly volume).....	16	19	18	21	17	14	15	13	13	13	10	18	17	21
Number of payments <sup>12</sup> .....	43	42	38	47	35	28	36	28	28	26	25	39	41	46
Average amount of benefit payment <sup>3</sup> .....	\$81.50	\$92.00	\$96.76	\$94.78	\$96.02	\$96.28	\$89.31	\$93.64	\$94.12	\$91.74	\$90.69	\$75.65	\$88.32	\$91.06
Total benefits paid <sup>4</sup> .....	\$3,565	\$3,668	\$3,374	\$4,091	\$3,241	\$2,513	\$2,918	\$2,478	\$2,375	\$2,113	\$2,043	\$2,804	\$3,386	\$4,056
<b>All programs:</b> <sup>15</sup>														
Insured unemployment <sup>6</sup> .....	1,885	1,916	1,987	1,957	1,464	1,105	929	902	1,015	1,088	911	970	1,162	1,384

<sup>1</sup> Includes data for Puerto Rico.<sup>2</sup> Includes Guam and the Virgin Islands.<sup>3</sup> Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transition claims under State programs.<sup>4</sup> Includes interstate claims for the Virgin Islands.<sup>5</sup> Number of workers reporting the completion of at least 1 week of unemployment.<sup>6</sup> Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.<sup>7</sup> The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.<sup>8</sup> Excludes data on claims and payments made jointly with other programs.<sup>9</sup> Includes the Virgin Islands.<sup>10</sup> Excludes data on claims and payments made jointly with State programs.<sup>11</sup> 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.<sup>12</sup> Payments are for unemployment in 14-day registration periods.<sup>13</sup> The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.<sup>14</sup> Adjusted for recovery of overpayments and settlement of underpayments.<sup>15</sup> Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs and the Railroad Unemployment Insurance Act. Includes claims filed under Extended Duration (ED) provisions of regular State laws.

SOURCE: U.S. Department of Labor, Office of Manpower Management Data Systems for all items except railroad unemployment insurance which is prepared by the U.S. Railroad Retirement Board. Data for latest month are subject to revision.

11. Employees on nonagricultural payrolls, by industry division, 1947 to date<sup>1</sup>

[In thousands]

Year	TOTAL	Mining	Contract construction	Manufacturing	Transportation and public utilities	Wholesale and retail trade			Finance, insurance, and real estate	Services	Government		
						Total	Wholesale trade	Retail trade			Total	Federal	State and local
1947	43,881	955	1,982	15,545	4,166	8,955	2,361	6,595	1,754	5,050	5,474	1,892	3,582
1948	44,891	994	2,169	15,582	4,189	9,272	2,489	6,783	1,829	5,206	5,650	1,863	3,787
1949	43,778	930	2,165	14,441	4,001	9,264	2,487	6,778	1,857	5,264	5,856	1,908	3,948
1950	45,222	901	2,333	15,241	4,034	9,386	2,518	6,868	1,919	5,382	6,026	1,928	4,098
1951	47,849	929	2,603	16,393	4,226	9,742	2,606	7,136	1,991	5,576	6,389	2,302	4,087
1952	48,825	898	2,634	16,632	4,248	10,004	2,687	7,317	2,069	5,730	6,609	2,420	4,188
1953	50,232	866	2,623	17,549	4,290	10,247	2,727	7,520	2,146	5,867	6,645	2,305	4,340
1954	49,022	791	2,612	16,314	4,084	10,235	2,739	7,496	2,234	6,002	6,751	2,188	4,563
1955	50,675	792	2,802	16,882	4,141	10,535	2,796	7,740	2,335	6,274	6,914	2,187	4,727
1956	52,408	822	2,999	17,243	4,244	10,858	2,884	7,974	2,429	6,536	7,277	2,209	5,069
1957	52,894	828	2,923	17,174	4,241	10,886	2,893	7,992	2,477	6,749	7,616	2,217	5,399
1958	51,363	751	2,778	15,945	3,976	10,750	2,848	7,902	2,519	6,806	7,839	2,191	5,648
1959 <sup>2</sup>	53,313	732	2,960	16,675	4,011	11,127	2,946	8,182	2,594	7,130	8,083	2,233	5,850
1959 <sup>2</sup>	54,234	712	2,885	16,796	4,004	11,391	3,004	8,388	2,669	7,423	8,353	2,270	6,083
1961	54,042	672	2,816	16,326	3,903	11,337	2,993	8,344	2,731	7,664	8,594	2,279	6,315
1962	55,596	650	2,902	16,853	3,906	11,566	3,056	8,511	2,800	8,028	8,890	2,340	6,550
1963	56,702	635	2,963	16,995	3,903	11,778	3,104	8,675	2,877	8,325	9,225	2,358	6,868
1964	58,331	634	3,050	17,274	3,951	12,160	3,189	8,971	2,957	8,709	9,596	2,348	7,248
1965	60,815	632	3,186	18,062	4,036	12,716	3,312	9,404	3,023	9,087	10,074	2,378	7,696
1966	63,955	627	3,275	19,214	4,151	13,245	3,437	9,808	3,100	9,551	10,792	2,564	8,227
1967	65,857	613	3,208	19,447	4,261	13,606	3,525	10,081	3,225	10,099	11,398	2,719	8,679
1968	67,915	606	3,285	19,781	4,310	14,084	3,611	10,473	3,382	10,623	11,845	2,737	9,109
1969	70,274	619	3,437	20,169	4,431	14,645	3,738	10,907	3,557	11,211	12,204	2,758	9,446

<sup>1</sup> The industry series have been adjusted to March 1969 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to July 1970. For comparable back data, see *Employment and Earnings, United States, 1909-70* (BLS Bulletin 1312-7) to be released this fall.

These series are based upon establishment reports which cover all full- and part-time employees in nonagricultural establishments who worked during, or received pay for any part of the pay period which includes the 12th of the month. Therefore, persons who

worked in more than one establishment during the reporting period are counted more than once. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded.

<sup>2</sup> Data include Alaska and Hawaii beginning 1959. This inclusion has resulted in an increase of 212,000 (0.4 percent) in the nonagricultural total for the March 1959 benchmark month.

## 12. Employees on nonagricultural payrolls, by State

[In thousands]

State	Apr. 1970 <sup>p</sup>	Mar. 1970	Apr. 1969	State	Apr. 1970 <sup>p</sup>	Mar. 1970	Apr. 1969
Alabama	1,004.8	995.4	990.5	Montana	192.7	188.5	191.5
Alaska	83.9	81.7	79.1	Nebraska	483.1	474.6	468.2
Arizona	547.5	545.7	506.2	Nevada	194.2	192.8	183.3
Arkansas	529.0	526.1	526.7	New Hampshire	252.5	250.6	250.8
California	6,960.1	6,954.1	6,827.3	New Jersey	2,596.2	2,580.6	2,553.8
Colorado	718.6	717.0	697.6	New Mexico	290.2	288.6	280.7
Connecticut	1,202.5	1,197.3	1,191.6	New York	7,224.8	7,159.1	7,142.2
Delaware	209.2	208.0	203.0	North Carolina	1,741.8	1,740.8	1,720.5
District of Columbia	684.3	683.9	677.5	North Dakota	158.2	157.7	154.7
Florida	2,172.1	2,174.8	2,068.3	Ohio	3,915.7	3,904.9	3,850.5
Georgia	1,529.0	1,526.3	1,509.2	Oklahoma	759.3	758.5	748.1
Hawaii	284.0	282.4	269.1	Oregon	695.1	693.2	693.4
Idaho	199.3	197.5	195.2	Pennsylvania	4,368.7	4,349.1	4,344.7
Illinois	4,339.6	4,347.5	4,321.4	Rhode Island	333.5	335.5	344.0
Indiana	1,856.9	1,849.1	1,862.6	South Carolina	814.4	816.4	808.6
Iowa	886.5	875.9	874.5	South Dakota	172.7	169.8	166.4
Kansas	679.4	677.2	685.8	Tennessee	1,318.7	1,320.7	1,298.6
Kentucky	900.6	896.2	887.7	Texas	3,716.0	3,681.6	3,580.9
Louisiana	1,039.6	1,041.5	1,032.4	Utah	354.0	349.0	344.5
Maine	326.1	324.3	324.5	Vermont	146.5	146.0	140.9
Maryland	1,296.8	1,290.5	1,260.9	Virginia	1,446.2	1,438.0	1,421.9
Massachusetts <sup>1</sup>	2,241.1	2,228.6	2,220.7	Washington	1,096.2	1,096.3	1,113.0
Michigan	3,011.0	3,022.1	3,033.7	West Virginia	507.3	508.3	508.7
Minnesota	1,300.9	1,298.6	1,271.9	Wisconsin	1,517.2	1,516.3	1,498.1
Mississippi	577.3	571.6	561.6	Wyoming	104.4	103.3	101.9
Missouri	1,651.7	1,660.9	1,664.0				

<sup>1</sup> Revised series; not strictly comparable with previously published data.

<sup>p</sup> = preliminary.

SOURCE: State agencies in cooperation with U.S. Department of Labor, Bureau of Labor Statistics. More detailed industry data are available from the State agencies. For addresses, see inside back cover of *Employment and Earnings*.



13. Employees on nonagricultural payrolls, by industry division and major manufacturing group <sup>1</sup>

[In thousands]

Industry division and group	1970					1969								Annual average	
	May <sup>p</sup>	Apr. <sup>p</sup>	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
<b>TOTAL</b> .....	70,779	70,721	70,460	70,029	69,933	71,760	71,354	71,333	70,964	70,758	70,481	71,116	70,064	70,274	67,915
<b>MINING</b> .....	620	616	610	608	611	623	622	623	630	638	635	629	614	619	606
<b>CONTRACT CONSTRUCTION</b> .....	3,338	3,284	3,161	3,071	3,048	3,398	3,553	3,648	3,687	3,731	3,707	3,628	3,434	3,437	3,285
<b>MANUFACTURING</b> .....	19,418	19,619	19,794	19,770	19,824	20,110	20,194	20,395	20,482	20,497	20,164	20,387	20,027	20,169	19,781
Production workers <sup>2</sup> .....	14,070	14,236	14,385	14,346	14,402	14,680	14,763	14,953	15,041	15,014	14,700	14,958	14,655	14,768	14,514
Durable goods.....	11,358	11,484	11,607	11,573	11,623	11,802	11,832	12,008	12,030	11,992	11,889	12,051	11,857	11,893	11,626
Production workers <sup>2</sup> .....	8,179	8,279	8,379	8,327	8,377	8,556	8,580	8,744	8,767	8,701	8,612	8,794	8,624	8,648	8,457
Ordinance and accessories.....	252.4	260.0	271.0	277.6	282.8	291.3	297.1	298.3	305.8	313.9	322.1	325.2	328.2	318.8	338.0
Lumber and wood products.....	582.4	574.3	578.6	579.2	583.8	597.0	600.1	604.4	616.7	629.3	627.5	634.7	611.6	609.2	600.1
Furniture and fixtures.....	452.0	463.5	468.6	470.3	475.6	482.2	485.2	488.1	486.8	488.4	476.2	487.1	480.6	483.5	471.6
Stone, clay, and glass products.....	632.8	639.7	635.1	632.9	632.0	650.9	661.9	664.7	669.0	674.0	670.9	670.8	651.9	656.3	635.5
Primary metal industries.....	1,308.8	1,327.2	1,338.1	1,346.6	1,351.4	1,367.6	1,364.7	1,364.0	1,373.9	1,375.5	1,374.3	1,383.4	1,354.1	1,358.0	1,315.5
Fabricated metal products.....	1,383.3	1,401.3	1,416.1	1,421.1	1,433.1	1,456.6	1,456.7	1,454.6	1,459.6	1,449.2	1,428.9	1,456.9	1,434.1	1,442.1	1,390.4
Machinery, except electrical.....	2,016.2	2,041.2	2,058.3	2,055.9	2,044.6	2,043.2	2,028.6	2,036.0	2,032.9	2,022.2	2,032.1	2,048.1	2,022.7	2,027.7	1,965.9
Electrical equipment.....	1,932.6	1,962.2	1,983.2	1,995.2	1,928.2	1,948.9	1,955.4	2,069.7	2,057.4	2,049.0	2,022.7	2,033.5	2,011.2	2,013.0	1,974.5
Transportation equipment.....	1,913.0	1,923.0	1,963.4	1,901.1	1,999.4	2,042.9	2,049.2	2,088.2	2,096.5	2,056.0	2,022.9	2,086.8	2,050.2	2,067.1	2,038.6
Instruments and related products.....	463.9	469.2	471.3	471.3	472.6	477.7	476.9	476.2	476.8	482.1	477.4	480.5	476.6	476.5	461.9
Miscellaneous manufacturing.....	420.7	422.3	423.0	421.4	419.0	443.7	456.4	463.4	454.9	452.0	433.7	444.0	436.2	440.2	433.4
Nondurable goods.....	8,060	8,135	8,178	8,197	8,201	8,308	8,362	8,387	8,452	8,505	8,275	8,336	8,170	8,277	8,155
Production workers <sup>2</sup> .....	5,891	5,957	6,006	6,019	6,025	6,124	6,183	6,209	6,274	6,313	6,288	6,164	6,031	6,120	6,056
Food and kindred products.....	1,723.1	1,722.5	1,735.6	1,739.9	1,744.3	1,790.7	1,831.7	1,862.0	1,928.8	1,941.9	1,832.6	1,788.1	1,726.5	1,795.9	1,781.5
Tobacco manufactures.....	70.2	71.1	73.8	77.4	79.9	84.0	87.1	94.5	97.6	93.0	71.9	72.0	71.1	82.0	84.6
Textile mill products.....	965.2	975.1	977.3	979.9	987.6	995.3	997.6	994.8	997.2	1,000.1	992.0	1,012.5	995.7	998.7	993.9
Apparel and other textile products.....	1,374.0	1,379.8	1,402.8	1,404.0	1,388.8	1,407.6	1,417.6	1,423.0	1,421.4	1,427.1	1,369.2	1,434.5	1,414.9	1,412.3	1,405.8
Paper and allied products.....	704.2	713.6	714.9	714.2	716.0	722.7	720.4	716.4	718.0	722.6	715.7	720.8	703.6	712.1	691.2
Printing and publishing.....	1,105.7	1,110.8	1,112.3	1,110.0	1,107.7	1,116.2	1,113.4	1,107.7	1,098.5	1,098.0	1,092.5	1,092.3	1,077.6	1,093.3	1,065.1
Chemicals and allied products.....	1,055.1	1,063.2	1,064.1	1,060.8	1,058.5	1,062.1	1,059.9	1,058.1	1,063.9	1,076.5	1,076.1	1,072.9	1,056.8	1,060.7	1,029.9
Petroleum and coal products.....	190.0	190.1	189.7	188.4	188.0	188.9	191.0	191.8	191.9	195.0	195.3	192.9	188.1	182.9	186.8
Rubber and plastics products, nec.....	546.1	579.9	585.0	588.2	593.4	599.6	601.6	600.5	599.0	599.4	588.8	599.4	589.9	593.9	561.3
Leather and leather products.....	326.4	328.5	331.6	334.6	336.7	341.3	341.2	338.2	336.1	351.0	341.2	350.2	345.6	345.1	355.2
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	4,464	4,428	4,443	4,420	4,435	4,478	4,486	4,481	4,508	4,510	4,507	4,494	4,411	4,431	4,310
<b>WHOLESALE AND RETAIL TRADE</b> .....	14,868	14,803	14,700	14,606	14,707	15,638	15,092	14,850	14,714	14,670	14,663	14,713	14,517	14,645	14,084
Wholesale trade.....	3,806	3,800	3,797	3,788	3,797	3,841	3,816	3,801	3,781	3,796	3,787	3,758	3,678	3,738	3,611
Retail trade.....	11,062	11,003	10,903	10,818	10,910	11,797	11,276	11,049	10,933	10,874	10,876	10,955	10,839	10,907	10,473
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	3,676	3,661	3,639	3,615	3,604	3,608	3,597	3,589	3,595	3,641	3,628	3,584	3,533	3,557	3,382
<b>SERVICES</b> .....	11,630	11,552	11,433	11,357	11,254	11,351	11,349	11,372	11,300	11,372	11,384	11,353	11,236	11,211	10,623
Hotels and other lodging places.....	743.5	727.3	717.5	709.6	713.3	714.5	738.4	764.8	852.3	856.5	784.2	747.7	750.3	722.2	
Personal services.....	1,006.4	1,006.2	1,003.0	1,005.1	1,022.0	1,025.4	1,028.0	1,022.1	1,023.8	1,036.9	1,043.2	1,032.0	1,025.8	1,031.4	
Medical and other health services.....	3,031.3	3,019.4	3,000.7	2,979.8	2,961.4	2,950.0	2,927.8	2,907.8	2,905.1	2,903.3	2,880.4	2,830.4	2,868.8	2,638.6	
Educational services.....	1,193.0	1,197.8	1,196.1	1,163.6	1,179.9	1,184.5	1,164.3	1,161.6	958.4	974.7	1,070.7	1,167.1	1,116.9	1,067.3	
<b>GOVERNMENT</b> .....	12,765	12,758	12,680	12,582	12,450	12,554	12,461	12,375	12,048	11,699	11,793	12,328	12,292	12,204	11,845
Federal.....	2,824	2,838	2,758	2,694	2,690	2,760	2,705	2,717	2,733	2,804	2,842	2,832	2,740	2,758	2,737
State and Local.....	9,941	9,920	9,922	9,888	9,760	9,794	9,756	9,658	9,315	8,895	8,951	9,496	9,552	9,446	9,109

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, and coverage of these series, see footnote 1, table 11.

<sup>2</sup> Production workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance,

repair, janitorial, and watchman services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the above production operations.

<sup>p</sup> = preliminary.

14. Employees on nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted <sup>1</sup>

[In thousands]

Industry division and group	1970					1969							
	May <sup>p</sup>	Apr. <sup>p</sup>	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May
<b>TOTAL</b> .....	70,855	71,124	71,256	71,135	70,992	70,842	70,808	70,836	70,567	70,497	70,400	70,347	70,172
<b>MINING</b> .....	620	622	626	626	625	627	624	622	623	621	618	614	614
<b>CONTRACT CONSTRUCTION</b> .....	3,345	3,424	3,481	3,466	3,394	3,496	3,473	3,445	3,436	3,420	3,439	3,442	3,441
<b>MANUFACTURING</b> .....	19,562	19,787	19,944	19,937	20,018	20,082	20,082	20,233	20,252	20,246	20,247	20,248	20,195
Production workers <sup>2</sup> .....	14,184	14,384	14,512	14,489	14,573	14,638	14,638	14,794	14,826	14,826	14,839	14,844	14,790
<b>Durable goods</b> .....	11,394	11,525	11,648	11,625	11,679	11,773	11,782	11,965	11,968	11,950	11,955	11,957	11,915
Production workers <sup>2</sup> .....	8,199	8,313	8,409	8,367	8,425	8,516	8,522	8,703	8,713	8,698	8,706	8,707	8,662
Ordnance and accessories.....	254	261	271	277	281	290	296	298	306	316	322	326	330
Lumber and wood products.....	585	585	593	598	605	606	603	601	606	607	608	612	614
Furniture and fixtures.....	457	468	471	472	477	478	479	483	483	484	484	486	486
Stone, clay, and glass products.....	633	644	651	657	653	659	659	658	657	655	655	656	652
<b>Primary metal industries</b> .....	1,298	1,321	1,337	1,349	1,360	1,380	1,384	1,386	1,381	1,367	1,358	1,356	1,343
Fabricated metal products.....	1,392	1,410	1,425	1,428	1,436	1,447	1,444	1,445	1,452	1,451	1,446	1,444	1,443
Machinery, except electrical.....	2,014	2,033	2,046	2,048	2,043	2,051	2,043	2,050	2,041	2,028	2,032	2,032	2,021
Electrical equipment.....	1,956	1,982	1,995	1,993	1,922	1,930	1,934	2,051	2,049	2,043	2,045	2,038	2,036
Transportation equipment.....	1,913	1,919	1,950	1,890	1,988	2,009	2,028	2,078	2,078	2,081	2,086	2,087	2,070
Instruments and related products.....	467	471	472	472	474	476	476	476	477	479	478	479	480
Miscellaneous manufacturing.....	425	431	437	441	440	447	436	439	438	439	441	441	440
<b>Nondurable goods</b> .....	8,168	8,262	8,296	8,312	8,339	8,309	8,300	8,268	8,284	8,296	8,292	8,291	8,280
Production workers <sup>2</sup> .....	5,985	6,071	6,103	6,122	6,148	6,122	6,116	6,091	6,113	6,128	6,133	6,137	6,128
Food and kindred products.....	1,791	1,806	1,823	1,830	1,817	1,805	1,806	1,780	1,799	1,801	1,795	1,792	1,795
Tobacco manufactures.....	81	81	81	80	80	77	80	81	83	86	81	82	82
Textile mill products.....	969	979	980	987	999	995	993	991	992	992	999	1,000	1,000
Apparel and other textile products.....	1,377	1,391	1,396	1,398	1,416	1,410	1,405	1,406	1,409	1,410	1,416	1,419	1,418
Paper and allied products.....	711	721	721	720	721	720	718	716	715	714	712	712	710
Printing and publishing.....	1,111	1,112	1,113	1,113	1,113	1,110	1,109	1,106	1,100	1,097	1,093	1,090	1,083
Chemicals and allied products.....	1,057	1,062	1,066	1,067	1,068	1,067	1,064	1,062	1,064	1,064	1,064	1,064	1,059
Petroleum and coal products.....	191	192	194	193	193	192	191	191	189	190	189	189	189
Rubber and plastics products, nec.....	551	585	589	591	595	594	596	596	596	597	597	596	595
Leather and leather products.....	329	333	333	333	337	339	338	339	337	345	346	347	349
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	4,473	4,464	4,502	4,496	4,507	4,469	4,464	4,463	4,459	4,457	4,454	4,445	4,420
<b>WHOLESALE AND RETAIL TRADE</b> .....	14,958	14,975	14,984	14,987	14,938	14,750	14,848	14,824	14,739	14,713	14,673	14,647	14,606
Wholesale trade.....	3,852	3,850	3,847	3,834	3,828	3,807	3,782	3,775	3,762	3,751	3,742	3,736	3,723
Retail trade.....	11,106	11,125	11,137	11,153	11,110	10,943	11,066	11,049	10,977	10,962	10,931	10,911	10,883
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	3,683	3,676	3,665	3,652	3,648	3,626	3,611	3,596	3,584	3,580	3,567	3,556	3,540
<b>SERVICES</b> .....	11,561	11,552	11,537	11,530	11,472	11,431	11,383	11,361	11,289	11,248	11,205	11,174	11,170
Hotels and other lodging places.....	766	772	770	775	775	770	760	761	748	730	734	745	752
Personal services.....	1,006	1,015	1,018	1,016	1,016	1,016	1,021	1,025	1,026	1,026	1,030	1,027	1,027
Medical and other health services.....	3,040	3,025	3,007	2,992	2,973	2,950	2,931	2,914	2,891	2,875	2,860	2,845	2,845
Educational services.....	1,146	1,143	1,145	1,125	1,125	1,129	1,125	1,122	1,105	1,117	1,113	1,114	1,123
<b>GOVERNMENT</b> .....	12,653	12,624	12,517	12,441	12,390	12,361	12,323	12,292	12,185	12,212	12,197	12,221	12,186
Federal <sup>3</sup> .....	2,840	2,851	2,780	2,718	2,717	2,721	2,730	2,739	2,747	2,749	2,765	2,782	2,757
State and local.....	9,813	9,773	9,737	9,723	9,673	9,640	9,593	9,553	9,438	9,463	9,432	9,439	9,429

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, and coverage of these series, see footnote 1, table 11.

<sup>2</sup> For definition of production workers, see footnote 2, table 13.

NOTE: These data have been seasonally adjusted to reflect experience through February 1970. For additional detail see June 1970 issue of *Employment and Earnings*.  
<sup>p</sup> = preliminary.

15. Labor turnover rates in manufacturing, 1959 to date <sup>1</sup>

[Per 100 employees]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual average
<b>Total accessions</b>													
1959	3.8	3.7	4.1	4.1	4.2	5.4	4.4	5.2	5.1	3.9	3.4	3.6	4.2
1960	4.0	3.5	3.3	3.4	3.9	4.7	3.9	4.9	4.8	3.5	2.9	2.3	3.8
1961	3.7	3.2	4.0	4.0	4.3	5.0	4.4	5.3	4.7	4.3	3.4	2.6	4.1
1962	4.1	3.6	3.8	4.0	4.3	5.0	4.6	5.1	4.9	3.9	3.0	2.4	4.1
1963	3.6	3.3	3.5	3.9	3.9	4.8	4.3	4.8	4.8	3.9	2.9	2.5	3.9
1964	3.6	3.4	3.7	3.8	3.9	5.1	4.4	5.1	4.8	4.0	3.2	2.6	4.0
1965	3.8	3.5	4.0	3.8	4.1	5.6	4.5	5.4	5.5	4.5	3.9	3.1	4.3
1966	4.6	4.2	4.9	4.6	5.1	6.7	5.1	6.4	6.1	5.1	3.9	2.9	5.0
1967	4.3	3.6	3.9	3.9	4.6	5.9	4.7	5.5	5.3	4.7	3.7	2.8	4.4
1968	4.2	3.8	4.0	4.3	4.7	5.9	5.0	5.8	5.7	5.1	3.9	3.1	4.6
1969	4.6	3.9	4.4	4.5	4.8	6.6	5.1	5.6	5.9	5.0	3.6	2.9	4.7
1970	4.0	3.6	3.7	p 3.7									
<b>New hires</b>													
1959	2.0	2.1	2.4	2.5	3.7	2.7	3.0	3.5	3.5	2.6	1.9	1.5	2.6
1960	2.2	2.2	2.0	2.0	2.3	3.0	2.4	2.9	2.8	2.1	1.5	1.0	2.2
1961	1.5	1.4	1.6	1.8	2.1	2.9	2.5	3.1	3.0	2.7	2.0	1.4	2.2
1962	2.2	2.1	2.2	2.4	2.8	3.5	2.9	3.2	3.1	2.5	1.8	1.2	2.5
1963	1.9	1.8	2.0	2.3	2.5	3.3	2.7	3.2	3.2	2.6	1.8	1.4	2.4
1964	2.0	2.0	2.2	2.4	2.5	3.6	2.9	3.4	3.5	2.8	2.2	1.6	2.6
1965	2.4	2.4	2.8	2.6	3.0	4.3	3.2	3.9	4.0	3.5	2.9	2.2	3.1
1966	3.2	3.1	3.7	3.6	4.1	5.6	3.9	4.8	4.7	4.2	3.1	2.1	3.8
1967	3.0	2.7	2.8	2.8	3.3	4.6	3.3	4.0	4.1	3.7	2.8	2.0	3.3
1968	3.0	2.7	2.9	3.2	3.6	4.7	3.7	4.3	4.6	4.0	2.9	2.2	3.5
1969	3.3	3.0	3.4	3.5	3.8	5.4	3.9	4.3	4.8	4.0	2.8	2.1	3.7
1970	2.9	2.5	2.6	p 2.6									
<b>Total separations</b>													
1959	3.7	3.1	3.3	3.6	3.5	3.6	4.0	4.6	5.3	5.5	4.7	3.9	4.1
1960	3.6	3.5	4.0	4.2	3.9	4.0	4.4	4.8	5.3	4.7	4.5	4.8	4.3
1961	4.7	3.9	3.8	3.4	3.5	3.6	4.1	4.2	5.1	4.2	4.0	4.0	4.0
1962	3.9	3.4	3.6	3.6	3.8	3.8	4.4	5.1	5.0	4.4	4.0	3.8	4.1
1963	4.0	3.2	3.5	3.6	3.6	3.4	4.1	4.8	4.9	4.1	3.9	3.7	3.9
1964	4.0	3.3	3.5	3.5	3.6	3.5	4.4	4.3	5.1	4.2	3.6	3.7	3.9
1965	3.7	3.1	3.4	3.7	3.6	3.6	4.3	5.1	5.6	4.5	3.9	4.1	4.1
1966	4.0	3.6	4.1	4.3	4.3	4.4	5.3	5.8	6.6	4.8	4.3	4.2	4.6
1967	4.5	4.0	4.6	4.3	4.2	4.3	4.8	5.3	6.2	4.7	4.0	3.9	4.6
1968	4.4	3.9	4.1	4.1	4.3	4.1	5.0	6.0	6.3	5.0	4.1	3.8	4.6
1969	4.5	4.0	4.4	4.5	4.6	4.6	5.3	6.2	6.6	5.3	4.3	4.2	4.9
1970	4.8	4.3	4.5	p 4.7									
<b>Quits</b>													
1959	1.1	1.0	1.2	1.4	1.5	1.5	1.6	2.1	2.6	1.7	1.2	1.0	1.5
1960	1.2	1.2	1.2	1.4	1.3	1.4	1.4	1.8	2.3	1.3	.9	.7	1.3
1961	.9	.8	.9	1.0	1.1	1.2	1.2	1.7	2.3	1.4	1.1	.9	1.2
1962	1.1	1.1	1.2	1.3	1.5	1.5	1.4	2.1	2.4	1.5	1.1	.8	1.4
1963	1.1	1.0	1.2	1.3	1.4	1.4	1.4	2.1	2.4	1.5	1.1	.8	1.4
1964	1.2	1.1	1.2	1.3	1.5	1.4	1.5	2.1	2.7	1.7	1.2	1.0	1.5
1965	1.4	1.3	1.5	1.7	1.7	1.7	1.8	2.6	3.5	2.2	1.7	1.4	1.9
1966	1.9	1.8	2.3	2.5	2.5	2.5	2.5	3.6	4.5	2.8	2.1	1.7	2.6
1967	2.1	1.9	2.1	2.2	2.2	2.3	2.1	3.2	4.0	2.5	1.9	1.5	2.3
1968	2.0	1.9	2.1	2.2	2.4	2.3	2.4	3.8	4.2	2.8	2.1	1.6	2.5
1969	2.3	2.1	2.4	2.6	2.7	2.6	2.6	4.0	4.4	2.9	2.1	1.6	2.7
1970	2.1	1.9	1.9	p 2.1									
<b>Layoffs</b>													
1959	2.1	1.5	1.6	1.6	1.4	1.4	1.8	1.8	2.0	3.2	2.9	2.4	2.0
1960	1.8	1.7	2.2	2.2	1.9	2.0	2.4	2.4	2.4	2.8	3.1	3.6	2.4
1961	3.2	2.6	2.3	1.9	1.8	1.8	2.3	1.8	2.1	2.0	2.2	2.6	2.2
1962	2.1	1.7	1.6	1.6	1.6	1.6	2.2	2.2	1.9	2.2	2.3	2.5	2.0
1963	2.2	1.6	1.7	1.6	1.5	1.4	2.0	1.9	1.8	1.9	2.1	2.3	1.8
1964	2.0	1.6	1.6	1.4	1.4	1.3	2.1	1.4	1.5	1.8	1.7	2.1	1.7
1965	1.6	1.2	1.2	1.3	1.1	1.1	1.8	1.6	1.3	1.4	1.5	1.9	1.4
1966	1.3	1.0	1.0	1.0	.9	1.0	2.0	1.1	1.0	1.1	1.3	1.7	1.2
1967	1.5	1.3	1.5	1.3	1.1	1.1	1.9	1.2	1.2	1.3	1.3	1.6	1.4
1968	1.5	1.2	1.1	1.0	1.0	.9	1.8	1.3	1.1	1.2	1.2	1.4	1.2
1969	1.2	1.0	1.0	.9	.9	1.0	1.6	1.1	1.1	1.3	1.3	1.8	1.2
1970	1.7	1.6	1.6	p 1.7									

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11.

Month-to-month changes in total employment in manufacturing and nonmanufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons: (1) The

labor turnover series measures changes during the calendar month, while the employment series measures changes from midmonth to midmonth and (2) the turnover series excludes personnel changes caused by strikes, but the employment series reflects the influence of such stoppages.

p=preliminary.

16. Labor turnover rates in manufacturing, by major industry group <sup>1</sup>

[Per 100 employees]

Major industry group	Accession rates						Separation rates								
	Total			New hires			Total			Quits			Layoffs		
	Apr. 1970 <sup>p</sup>	Mar. 1970	Apr. 1969	Apr. 1970 <sup>p</sup>	Mar. 1970	Apr. 1969	Apr. 1970 <sup>p</sup>	Mar. 1970	Apr. 1969	Apr. 1970 <sup>p</sup>	Mar. 1970	Apr. 1969	Apr. 1970 <sup>p</sup>	Mar. 1970	Apr. 1969
<b>MANUFACTURING</b> .....	3.7	3.7	4.5	2.6	2.6	3.5	4.7	4.5	4.5	2.1	1.9	2.6	1.7	1.6	0.9
Seasonally adjusted <sup>2</sup> .....	4.0	3.9	4.9	2.9	3.0	3.8	5.1	5.0	4.9	2.2	2.2	2.7	1.9	1.8	1.1
<b>Durable goods</b> .....	3.4	3.5	4.4	2.3	2.3	3.4	4.6	4.4	4.2	1.8	1.7	2.4	1.8	1.7	.8
Ordnance and accessories.....	1.1	1.4	2.3	.6	.7	1.8	3.7	5.1	3.2	.9	1.1	1.7	2.3	3.2	.7
Lumber and wood products.....	5.4	5.5	7.7	4.1	3.9	6.3	5.7	5.6	7.0	3.4	3.0	5.1	1.4	1.8	.8
Furniture and fixtures.....	4.5	4.9	6.4	3.4	3.7	5.7	5.9	5.7	6.5	3.3	3.3	4.6	1.4	1.3	.6
Stone, clay, and glass products.....	4.7	4.6	5.5	3.4	3.1	4.4	4.7	4.3	4.5	2.4	2.1	2.8	1.3	1.2	.6
Primary metal industries.....	2.9	3.1	3.8	1.9	1.8	2.9	3.8	3.7	3.3	1.5	1.3	1.8	1.2	1.2	.4
Fabricated metal products.....	4.0	4.2	5.2	2.9	3.0	4.3	5.5	4.6	5.2	2.3	2.1	3.0	2.1	1.5	1.0
Machinery, except electrical.....	2.5	2.8	3.2	1.8	2.0	2.7	3.6	3.3	3.3	1.5	1.4	1.8	1.2	1.0	.6
Electrical equipment.....	3.0	3.0	3.7	2.1	2.0	2.8	4.2	4.2	3.7	1.7	1.6	2.1	1.5	1.5	.6
Transportation equipment.....	3.6	3.4	4.4	1.8	1.7	2.9	5.6	5.6	4.4	1.2	1.2	1.9	3.5	3.6	1.5
Instruments and related products.....	2.6	2.7	3.1	1.9	2.1	2.7	3.6	2.9	3.2	1.5	1.4	1.9	1.1	.7	.5
Miscellaneous manufacturing.....	5.8	5.4	6.2	3.5	3.7	4.8	6.1	5.1	5.6	2.8	2.6	3.5	2.3	1.6	.9
<b>Nondurable goods</b> .....	4.1	4.1	4.7	3.0	3.0	3.6	4.8	4.6	4.8	2.5	2.3	2.8	1.5	1.5	1.1
Food and kindred products.....	5.3	5.1	5.9	3.7	3.5	4.2	5.6	6.0	5.7	2.7	2.6	3.1	2.1	2.6	1.8
Tobacco manufactures.....	2.8	2.9	2.7	1.9	2.4	1.7	3.3	5.6	6.4	1.9	1.9	1.8	.6	2.9	3.8
Textile mill products.....	5.0	4.8	5.6	3.8	3.6	4.6	5.5	5.2	5.9	3.7	3.3	4.2	.7	.8	.6
Apparel and other textile products.....	5.0	4.8	5.6	3.3	3.4	3.7	6.2	5.6	5.9	2.8	2.5	3.0	2.6	2.4	2.2
Paper and allied products.....	2.9	3.0	3.9	2.3	2.5	3.4	3.5	3.3	3.9	1.8	1.8	2.5	.8	.6	.4
Printing and publishing.....	2.8	3.2	3.2	2.3	2.6	2.8	3.5	3.0	3.3	1.9	1.8	2.1	.9	.6	.5
Chemicals and allied products.....	2.3	2.3	2.6	1.9	1.8	2.2	2.7	2.3	2.5	1.4	1.1	1.5	.6	.5	.3
Petroleum and coal products.....	2.1	2.0	2.4	1.8	1.6	2.1	2.5	2.3	2.0	.9	1.0	1.0	.7	.5	.2
Rubber and plastics products, n.e.c.....	4.1	4.3	5.3	3.2	3.3	4.5	6.1	5.1	5.2	2.8	2.4	3.4	2.0	1.6	.6
Leather and leather products.....	5.5	5.1	5.8	4.0	3.7	4.2	6.4	6.2	6.7	3.5	3.2	3.9	1.7	2.0	1.7

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For relationship to employment series see footnote 1, table 15.  
<sup>2</sup> These data have been seasonally adjusted to reflect experience through February 1970. For additional detail see June 1970 issue of *Employment and Earnings*.

NOTE: For additional detail see *Employment and Earnings*, table D-2.  
<sup>p</sup> = preliminary.

17. Gross hours and earnings of production and nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by industry division, 1947 to date

Year	Averages			Averages			Averages			Averages		
	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings
	Total private			Mining			Contract construction			Manufacturing		
1947	\$45.58	40.3	\$1.131	\$59.94	40.8	\$1.469	\$58.87	38.2	\$1.541	\$49.17	40.4	\$1.217
1948	49.00	40.0	1.225	65.56	39.4	1.664	65.27	38.1	1.713	53.12	40.0	1.328
1949	50.24	39.4	1.275	62.33	36.3	1.717	67.56	37.7	1.792	53.88	39.1	1.378
1950	53.13	39.8	1.335	67.16	37.9	1.772	69.68	37.4	1.863	58.32	40.5	1.440
1951	57.86	39.9	1.45	74.11	38.4	1.93	76.96	38.1	2.02	63.34	40.6	1.56
1952	60.65	39.9	1.52	77.59	38.6	2.01	82.86	38.9	2.13	67.16	40.7	1.65
1953	63.76	39.6	1.61	83.03	38.8	2.14	86.41	37.9	2.28	70.47	40.5	1.74
1954	64.52	39.1	1.65	82.60	38.6	2.14	88.91	37.2	2.39	70.49	39.6	1.78
1955	67.72	39.6	1.71	89.54	40.7	2.20	90.90	37.1	2.45	75.70	40.7	1.86
1956	70.74	39.3	1.80	95.06	40.8	2.33	96.38	37.5	2.57	78.78	40.4	1.95
1957	73.33	38.8	1.89	98.65	40.1	2.46	100.27	37.0	2.71	81.59	39.8	2.05
1958	75.08	38.5	1.95	96.08	38.9	2.47	103.78	36.8	2.82	82.71	39.2	2.11
1959 <sup>2</sup>	78.78	39.0	2.02	103.68	40.5	2.56	108.41	37.0	2.93	88.26	40.3	2.19
1960	80.67	38.6	2.09	105.44	40.4	2.61	113.04	36.7	3.08	89.72	39.7	2.26
1961	82.60	38.6	2.14	106.92	40.5	2.64	118.08	36.9	3.20	92.34	39.8	2.32
1962	85.91	38.7	2.22	110.43	40.9	2.70	122.47	37.0	3.31	96.56	40.4	2.39
1963	88.46	38.8	2.28	114.40	41.6	2.75	127.19	37.3	3.41	99.63	40.5	2.46
1964	91.33	38.7	2.36	117.74	41.9	2.81	132.06	37.2	3.55	102.97	40.7	2.53
1965	95.06	38.8	2.45	123.52	42.3	2.92	138.38	37.4	3.70	107.53	41.2	2.61
1966	98.82	38.6	2.56	130.24	42.7	3.05	146.26	37.6	3.89	112.34	41.3	2.72
1967	101.84	38.0	2.68	135.89	42.6	3.19	154.95	37.7	4.11	114.90	40.6	2.83
1968	107.73	37.8	2.85	142.71	42.6	3.35	164.93	37.4	4.41	122.51	40.7	3.01
1969	114.61	37.7	3.04	154.80	43.0	3.60	181.16	37.9	4.78	129.51	40.6	3.19
	Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services		
1947				\$38.07	40.5	\$0.940	\$43.21	37.9	\$1.140			
1948				40.80	40.4	1.010	45.48	37.9	1.200			
1949				42.93	40.5	1.060	47.63	37.8	1.260			
1950				44.55	40.5	1.100	50.52	37.7	1.340			
1951				47.79	40.5	1.18	54.67	37.7	1.45			
1952				49.20	40.0	1.23	57.08	37.8	1.51			
1953				51.35	39.5	1.30	59.57	37.7	1.58			
1954				53.33	39.5	1.35	62.04	37.6	1.65			
1955				55.16	39.4	1.40	63.92	37.6	1.70			
1956				57.48	39.1	1.47	65.68	36.9	1.78			
1957				59.60	38.7	1.54	67.53	36.7	1.84			
1958				61.76	38.6	1.60	70.12	37.1	1.89			
1959 <sup>2</sup>				64.41	38.8	1.66	72.74	37.3	1.95			
1960				66.01	38.6	1.71	75.14	37.2	2.02			
1961				67.41	38.3	1.76	77.12	36.9	2.09			
1962				69.91	38.2	1.83	80.94	37.3	2.17			
1963				72.01	38.1	1.89	84.38	37.5	2.25			
1964				74.28	37.9	1.96	85.79	37.3	2.30	\$69.84	36.0	\$1.94
1965	\$118.37	41.1	\$2.88	76.53	37.7	2.03	88.91	37.2	2.39	73.60	35.9	2.05
1966	125.14	41.3	3.03									
1966	128.13	41.2	3.11	79.02	37.1	2.13	92.13	37.3	2.47	77.04	35.5	2.17
1967	131.22	40.5	3.24	81.76	36.5	2.24	95.46	37.0	2.58	80.38	35.1	2.29
1968	138.85	40.6	3.42	86.40	36.0	2.40	101.75	37.0	2.75	84.32	34.7	2.43
1969	147.74	40.7	3.63	91.14	35.6	2.56	108.33	37.1	2.92	91.26	34.7	2.63

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11.

Data relate to production workers in mining and manufacturing; to construction workers in contract construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and

services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls.

<sup>2</sup> Data include Alaska and Hawaii beginning 1959.

NOTE: For additional detail see *Employment and Earnings*, table C-1.

**18. Gross average weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, by industry division and major manufacturing group**

Industry division and group	1970					1969								Annual average	
	May <sup>p</sup>	Apr. <sup>p</sup>	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
<b>TOTAL PRIVATE</b> .....	37.1	37.0	37.2	37.0	37.1	37.7	37.5	37.6	37.9	38.1	38.0	37.9	37.6	37.7	37.8
<b>MINING</b> .....	43.2	43.1	42.4	42.6	42.3	43.3	43.3	43.3	43.4	43.6	43.0	42.3	43.4	43.0	42.6
<b>CONTRACT CONSTRUCTION</b> .....	38.2	37.9	37.2	36.8	35.7	37.6	37.1	38.3	39.3	39.1	38.7	38.4	38.2	37.9	37.4
<b>MANUFACTURING</b> .....	39.9	39.7	40.0	39.8	40.1	41.0	40.6	40.7	41.0	40.6	40.4	40.9	40.7	40.6	40.7
Overtime hours.....	2.9	2.8	3.0	3.0	3.2	3.6	3.6	3.7	4.0	3.7	3.5	3.7	3.6	3.6	3.6
Durable Goods.....	40.5	40.2	40.6	40.3	40.7	41.7	41.2	41.4	41.7	41.1	40.9	41.5	41.4	41.3	41.4
Overtime hours.....	2.9	2.8	3.1	3.0	3.3	3.8	3.7	3.9	4.2	3.8	3.6	3.9	3.7	3.8	3.8
Ordnance and accessories.....	40.8	40.8	40.8	40.8	41.0	41.0	40.6	40.3	40.6	40.2	39.8	40.8	40.5	40.4	41.5
Lumber and wood products.....	40.7	39.9	39.5	39.4	39.1	40.1	39.9	40.3	40.2	39.7	40.6	40.7	40.7	40.2	40.6
Furniture and fixtures.....	38.7	38.7	39.1	38.7	38.9	40.8	40.3	40.6	40.7	40.8	39.7	40.8	40.4	40.4	40.6
Stone, clay, and glass products.....	41.4	41.4	41.3	40.9	40.9	42.9	41.9	42.1	42.4	42.4	41.8	42.3	42.4	42.0	41.8
Primary metal industries.....	40.6	40.4	40.8	40.8	41.3	41.7	41.4	41.7	42.1	41.8	41.6	42.0	41.9	41.8	41.6
Fabricated metal products.....	40.7	40.7	40.9	40.6	41.0	41.8	41.6	41.7	42.1	41.7	41.2	42.0	41.7	41.6	41.7
Machinery, except electrical.....	40.9	41.5	42.1	41.9	42.2	43.1	42.2	42.4	42.7	42.9	41.8	42.6	42.6	42.5	42.1
Electrical equipment and supplies.....	39.7	39.6	40.1	39.7	40.3	40.9	40.5	40.4	40.7	40.3	39.8	40.7	40.5	40.4	40.3
Transportation equipment.....	41.0	39.3	40.0	39.6	40.1	42.2	41.5	41.9	42.3	40.5	41.6	41.6	41.3	41.5	42.2
Instruments and related products.....	40.4	40.3	40.7	40.2	40.5	41.3	41.1	40.9	41.2	40.7	40.5	41.0	40.7	40.7	40.5
Miscellaneous manufacturing industries.....	38.6	38.8	39.0	38.8	38.8	39.5	39.3	39.3	39.2	39.1	38.5	39.2	39.0	39.0	39.4
Nondurable goods.....	39.0	38.9	39.2	39.1	39.2	40.0	39.8	39.7	40.0	39.9	39.8	39.9	39.7	39.7	39.8
Overtime hours.....	2.8	2.8	3.0	3.0	3.1	3.4	3.4	3.5	3.7	3.5	3.4	3.4	3.3	3.4	3.3
Food and kindred products.....	40.5	39.8	40.0	40.0	40.5	41.0	41.0	40.7	41.8	41.4	41.2	40.9	40.5	40.8	40.8
Tobacco manufactures.....	38.9	37.1	36.4	36.9	37.2	36.8	37.3	38.6	39.0	37.5	37.6	39.9	37.6	37.4	37.9
Textile mill products.....	39.7	39.9	40.1	40.0	40.0	41.3	41.1	40.9	41.0	40.7	41.4	40.9	40.9	40.8	41.2
Apparel and other textile products.....	35.2	35.4	35.8	35.5	35.2	35.9	35.8	35.8	35.8	36.3	35.9	36.3	36.1	35.9	36.1
Paper and allied products.....	42.0	41.7	42.0	41.9	42.4	43.2	42.9	43.1	43.3	43.1	43.0	43.1	43.0	43.0	42.9
Printing and publishing.....	37.6	37.7	38.0	37.8	37.7	39.0	38.4	38.4	38.6	38.6	38.4	38.4	38.3	38.4	38.3
Chemicals and allied products.....	41.4	41.6	41.8	41.6	41.7	42.9	42.0	41.7	41.8	41.7	41.7	41.8	41.9	41.8	41.8
Petroleum and coal products.....	42.1	42.1	41.8	41.8	41.9	41.7	42.7	42.9	42.6	42.9	43.6	42.5	43.3	42.6	42.5
Rubber and plastics products, nec.....	39.7	40.2	40.4	40.6	40.7	41.5	41.1	41.3	41.5	41.0	40.8	41.3	41.2	41.1	41.5
Leather and leather products.....	37.1	36.3	37.1	37.4	37.7	38.3	37.4	37.0	36.8	37.1	37.4	37.8	37.3	37.2	38.3
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	40.3	39.7	40.2	40.5	40.5	40.8	40.9	41.0	41.0	40.8	41.1	40.7	40.5	40.7	40.6
<b>WHOLESALE AND RETAIL TRADE</b> .....	35.0	34.9	35.0	35.0	35.1	35.7	35.2	35.3	35.7	36.6	36.5	35.9	35.4	35.6	36.0
Wholesale trade.....	40.0	39.9	40.0	40.0	40.2	40.7	40.2	40.3	40.3	40.5	40.3	40.1	40.0	40.2	40.1
Retail trade.....	33.4	33.3	33.4	33.3	33.4	34.1	33.6	33.7	34.2	35.3	35.2	34.6	33.9	34.2	34.7
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	36.7	36.9	37.0	37.0	36.9	37.0	37.2	37.1	37.0	37.0	37.1	37.1	37.0	37.1	37.0
<b>SERVICES</b> .....	34.4	34.5	34.7	34.3	34.3	34.6	34.6	34.5	34.6	35.3	35.3	34.8	34.5	34.7	34.7

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail, see Employment and Earnings, table C-2.

<sup>p</sup> = preliminary.

**19. Gross average weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted**

Industry division and group	1970				1969								
	May <sup>p</sup>	Apr. <sup>p</sup>	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May
<b>TOTAL PRIVATE</b> .....	37.2	37.3	37.4	37.3	37.5	37.6	37.6	37.5	37.7	37.7	37.7	37.7	37.8
<b>MINING</b> .....	43.1	43.1	43.2	43.4	42.7	43.2	43.5	43.0	43.1	43.1	42.6	41.8	43.3
<b>CONTRACT CONSTRUCTION</b> .....	38.2	38.3	38.0	38.2	36.7	38.2	38.1	37.6	38.1	37.9	37.6	37.6	38.2
<b>MANUFACTURING</b> .....	39.9	40.0	40.2	39.9	40.3	40.7	40.5	40.5	40.7	40.6	40.6	40.7	40.7
Overtime hours.....	2.9	3.0	3.2	3.2	3.3	3.5	3.5	3.5	3.6	3.6	3.6	3.7	3.7
<b>Durable Goods</b> .....	40.5	40.4	40.7	40.5	41.0	41.3	41.1	41.2	41.4	41.2	41.3	41.3	41.4
Overtime hours.....	3.0	3.0	3.2	3.2	3.4	3.6	3.5	3.6	3.8	3.8	3.8	3.9	3.8
Ordnance and accessories.....	40.8	41.1	41.1	41.3	40.6	40.5	40.3	40.2	40.3	40.4	40.3	40.7	40.5
Lumber and wood products.....	40.3	39.9	39.5	40.1	39.6	40.3	40.2	39.9	40.0	39.9	39.8	40.1	40.3
Furniture and fixtures.....	39.1	39.3	39.4	39.3	39.5	40.0	40.0	39.9	40.1	40.3	40.2	40.6	40.8
Stone, clay, and glass products.....	41.2	41.5	41.8	41.7	41.7	42.1	41.8	41.7	41.9	41.9	41.7	41.9	42.1
Primary metal industries.....	40.4	40.1	40.7	40.9	41.2	41.7	41.6	42.1	42.1	41.9	41.7	41.7	41.7
Fabricated metal products.....	46.6	41.0	41.2	41.1	41.4	41.5	41.4	41.4	41.5	41.6	41.6	41.7	41.6
Machinery, except electrical.....	40.9	41.5	41.8	41.9	42.2	42.6	42.2	42.4	42.6	42.5	42.4	42.5	42.6
Electrical equipment and supplies.....	39.8	40.6	40.2	39.7	40.5	40.3	40.1	40.2	40.4	40.4	40.4	40.6	40.6
Transportation equipment.....	40.9	39.8	40.4	40.3	40.2	41.4	40.7	41.2	41.6	41.2	42.1	41.6	41.2
Instruments and related products.....	40.5	40.5	40.7	40.2	40.7	40.9	40.9	40.7	41.0	40.9	40.9	40.9	40.8
Miscellaneous manufacturing industries.....	38.7	39.6	39.0	38.6	39.3	39.3	39.3	38.9	39.0	39.1	39.2	39.1	39.1
<b>Nondurable Goods</b> .....	39.1	39.3	39.4	39.3	39.6	39.8	39.6	39.6	39.7	39.7	39.8	39.7	39.8
Overtime hours.....	2.9	3.0	3.2	3.2	3.4	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4
Food and kindred products.....	40.7	40.5	40.5	40.7	41.0	40.8	40.8	40.6	40.9	40.9	40.7	40.7	40.7
Tobacco manufactures.....	39.2	38.3	37.5	37.3	38.3	36.2	37.2	37.3	37.4	37.2	38.0	39.3	37.9
Textile mill products.....	39.8	40.6	40.2	46.1	40.4	40.9	40.7	40.6	40.7	40.9	41.1	41.1	41.0
Apparel and other textile products.....	35.2	35.5	35.6	35.5	35.6	36.6	35.8	35.8	35.8	35.9	36.0	36.1	36.1
Paper and allied products.....	42.0	42.1	42.2	42.3	42.8	42.8	42.7	42.8	42.9	42.9	43.0	43.0	43.0
Printing and publishing.....	37.7	37.9	38.0	38.0	38.2	38.6	38.4	38.2	38.3	38.4	38.5	38.4	38.4
Chemicals and allied products.....	41.3	41.4	41.8	41.8	42.0	41.8	41.8	41.7	41.8	41.8	41.8	41.8	41.8
Petroleum and coal products.....	41.8	41.8	42.2	42.7	42.5	42.3	42.6	42.6	42.2	42.8	42.8	42.3	43.0
Rubber and plastics products, nec.....	39.8	40.6	40.7	41.0	40.9	41.1	40.8	40.9	41.0	40.9	41.2	41.3	41.3
Leather and leather products.....	37.3	37.4	37.4	37.1	37.5	37.7	37.3	37.2	37.1	36.9	37.1	37.4	37.5
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	40.5	40.1	40.6	40.7	40.7	40.8	40.7	40.9	40.8	40.5	40.7	40.6	40.7
<b>WHOLESALE AND RETAIL TRADE</b> .....	35.4	35.3	35.3	35.4	35.4	35.5	35.5	35.5	35.6	35.7	35.7	35.7	35.8
<b>Wholesale Trade</b> .....	40.2	40.1	40.1	40.2	40.3	40.5	40.3	40.3	40.3	40.3	40.0	40.0	40.2
<b>Retail trade</b> .....	33.8	33.7	33.8	33.7	33.8	33.8	34.0	34.0	34.1	34.2	34.2	34.3	34.3
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	36.8	36.9	37.0	37.0	36.9	36.9	37.2	37.0	37.1	37.0	37.1	37.1	37.1
<b>SERVICES</b> .....	34.6	34.6	34.7	34.4	34.4	34.6	34.7	34.6	34.7	35.0	35.0	34.7	34.7

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.  
<sup>p</sup> = preliminary.

NOTE: These data have been seasonally adjusted to reflect experience through February 1970. For additional detail see June 1970 issue of *Employment and Earnings*.

20. Gross average hourly earnings of production or nonsupervisory workers <sup>1</sup> on private nonagricultural payrolls, by industry division and major manufacturing group

Industry and division group	1970					1969								Annual average	
	May <sup>p</sup>	Apr. <sup>p</sup>	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
<b>TOTAL PRIVATE</b> .....	\$3.20	\$3.18	\$3.17	\$3.15	\$3.13	\$3.12	\$3.13	\$3.12	\$3.11	\$3.06	\$3.05	\$3.04	\$3.02	\$3.04	\$2.85
<b>MINING</b> .....	3.80	3.79	3.78	3.77	3.76	3.71	3.72	3.69	3.65	3.60	3.59	3.56	3.58	3.60	3.35
<b>CONTRACT CONSTRUCTION</b> .....	5.09	5.08	5.06	5.06	5.07	5.03	4.97	4.96	4.92	4.80	4.76	4.70	4.72	4.78	4.41
<b>MANUFACTURING</b> .....	3.35	3.32	3.31	3.29	3.29	3.29	3.26	3.25	3.24	3.20	3.19	3.18	3.16	3.19	3.01
<b>Durable Goods</b> .....	3.56	3.52	3.51	3.48	3.49	3.49	3.46	3.45	3.44	3.39	3.38	3.37	3.35	3.39	3.19
Ordnance and accessories.....	3.57	3.58	3.57	3.54	3.53	3.51	3.53	3.48	3.46	3.43	3.41	3.43	3.40	3.42	3.26
Lumber and wood products.....	2.97	2.89	2.86	2.84	2.83	2.84	2.86	2.83	2.84	2.79	2.75	2.72	2.69	2.74	2.57
Furniture and fixtures.....	2.75	2.73	2.71	2.70	2.71	2.71	2.70	2.68	2.68	2.64	2.62	2.62	2.60	2.62	2.47
Stone, clay, and glass products.....	3.36	3.34	3.32	3.28	3.28	3.28	3.29	3.27	3.25	3.22	3.19	3.18	3.17	3.19	2.99
Primary metal industries.....	3.93	3.90	3.86	3.85	3.86	3.87	3.85	3.85	3.87	3.84	3.79	3.77	3.75	3.79	3.55
Fabricated metal products.....	3.52	3.50	3.48	3.46	3.45	3.44	3.41	3.39	3.40	3.34	3.33	3.33	3.32	3.34	3.16
Machinery, except electrical.....	3.76	3.76	3.75	3.72	3.70	3.72	3.67	3.67	3.63	3.57	3.56	3.57	3.56	3.58	3.36
Electrical equipment and supplies.....	3.28	3.25	3.24	3.20	3.18	3.17	3.13	3.13	3.13	3.10	3.09	3.08	3.07	3.09	2.93
Transportation equipment.....	4.06	4.00	4.01	3.97	4.02	4.04	3.98	3.95	3.94	3.92	3.90	3.86	3.83	3.90	3.69
Instruments and related products.....	3.30	3.29	3.28	3.27	3.26	3.25	3.23	3.21	3.19	3.15	3.13	3.14	3.12	3.15	2.98
Miscellaneous manufacturing industries.....	2.80	2.80	2.80	2.80	2.79	2.76	2.72	2.69	2.68	2.64	2.64	2.65	2.64	2.66	2.50
<b>Nondurable Goods</b> .....	3.05	3.04	3.03	3.01	3.01	2.99	2.97	2.96	2.95	2.92	2.92	2.89	2.88	2.91	2.74
Food and kindred products.....	3.16	3.12	3.10	3.08	3.08	3.04	3.01	2.98	2.97	2.94	2.97	2.95	2.95	2.96	2.80
Tobacco manufactures.....	3.05	2.99	2.90	2.89	2.86	2.67	2.62	2.49	2.51	2.49	2.77	2.80	2.74	2.62	2.48
Textile mill products.....	2.43	2.43	2.42	2.42	2.42	2.42	2.42	2.41	2.41	2.38	2.35	2.31	2.30	2.34	2.21
Apparel and other textile products.....	2.37	2.37	2.37	2.36	2.36	2.35	2.34	2.34	2.34	2.31	2.28	2.30	2.29	2.31	2.21
Paper and allied products.....	3.40	3.37	3.35	3.35	3.35	3.34	3.32	3.31	3.31	3.28	3.27	3.23	3.20	3.24	3.05
Printing and publishing.....	3.87	3.85	3.84	3.81	3.80	3.81	3.78	3.77	3.75	3.70	3.68	3.68	3.66	3.69	3.48
Chemicals and allied products.....	3.63	3.61	3.60	3.60	3.60	3.58	3.56	3.55	3.52	3.50	3.49	3.46	3.43	3.47	3.26
Petroleum and coal products.....	4.31	4.27	4.23	4.23	4.21	4.10	4.10	4.06	4.04	3.99	4.03	3.99	4.03	4.00	3.75
Rubber and plastics products, nec.....	3.14	3.16	3.15	3.14	3.15	3.14	3.13	3.12	3.13	3.08	3.09	3.05	3.04	3.07	2.92
Leather and leather products.....	2.50	2.48	2.47	2.47	2.46	2.44	2.42	2.40	2.38	2.35	2.34	2.35	2.35	2.36	2.23
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	3.76	3.75	3.75	3.75	3.73	3.72	3.72	3.70	3.71	3.67	3.65	3.62	3.61	3.63	3.42
<b>WHOLESALE AND RETAIL TRADE</b> .....	2.70	2.69	2.68	2.68	2.65	2.61	2.63	2.61	2.59	2.56	2.55	2.55	2.54	2.56	2.40
Wholesale trade.....	3.41	3.39	3.40	3.38	3.35	3.34	3.33	3.29	3.28	3.24	3.23	3.24	3.20	3.23	3.05
Retail trade.....	2.42	2.42	2.41	2.40	2.38	2.35	2.36	2.35	2.33	2.30	2.30	2.30	2.29	2.30	2.16
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	3.03	3.03	3.05	3.04	3.02	2.98	2.99	2.95	2.93	2.92	2.91	2.93	2.90	2.92	2.75
<b>SERVICES</b> .....	2.80	2.79	2.79	2.77	2.74	2.72	2.72	2.69	2.67	2.62	2.63	2.61	2.60	2.63	2.43

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail see Employment and Earnings, table C-2.

<sup>p</sup>=preliminary.



**21. Gross average weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, by industry division and major manufacturing group**

Industry division and group	1970					1969							Annual average		
	May <sup>p</sup>	Apr. <sup>p</sup>	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	1968
<b>TOTAL PRIVATE</b> .....	\$118.72	\$117.66	\$117.92	\$116.55	\$116.12	\$117.62	\$117.38	\$117.31	\$117.87	\$116.59	\$115.90	\$115.22	\$113.55	\$114.61	\$107.73
<b>MINING</b> .....	164.16	163.35	160.27	160.60	159.05	160.64	161.08	159.78	158.41	156.96	154.37	150.59	155.37	154.80	142.71
<b>CONTRACT CONSTRUCTION</b> .....	194.44	192.53	188.23	186.21	181.00	189.13	184.39	189.97	193.36	187.68	184.21	180.48	180.30	181.16	164.93
<b>MANUFACTURING</b> .....	133.67	131.80	132.40	130.94	131.93	134.89	132.36	132.28	132.84	129.92	128.88	130.06	128.61	129.51	122.51
Durable goods.....	144.18	141.50	142.51	140.24	142.04	145.53	142.55	142.83	143.45	139.33	138.24	139.86	138.69	140.01	132.07
Ordnance and accessories.....	145.66	146.06	145.66	144.43	144.73	143.91	143.32	140.24	140.48	137.89	135.72	139.94	137.70	138.17	135.29
Lumber and wood products.....	120.88	115.31	112.97	111.90	110.65	113.88	114.11	114.05	114.45	112.16	109.18	110.43	109.48	110.15	104.34
Furniture and fixtures.....	106.43	105.65	105.96	104.49	105.42	110.57	108.81	108.81	109.08	107.71	104.01	106.90	105.04	105.85	100.28
Stone, clay, and glass products.....	139.10	138.28	137.12	134.15	134.15	137.76	137.85	137.67	137.80	136.53	133.34	134.51	134.41	133.98	124.98
Primary metal industries.....	159.56	157.56	157.49	157.08	159.42	161.38	159.39	160.55	162.93	160.51	157.66	158.34	157.13	158.42	147.68
Fabricated metal products.....	143.26	142.45	142.33	140.48	141.45	143.79	141.86	141.36	143.14	139.28	137.20	139.86	138.44	138.94	131.77
Machinery, except electrical.....	153.78	156.04	157.88	155.87	156.14	160.33	154.87	155.61	155.00	149.94	148.81	152.08	151.66	152.15	141.46
Electrical equipment and supplies.....	130.22	128.70	129.92	127.04	128.15	129.65	126.77	126.45	127.39	124.93	122.98	125.36	124.34	124.84	118.08
Transportation equipment.....	167.69	157.20	160.40	157.21	161.20	170.49	165.17	165.51	166.66	158.76	162.24	160.58	158.18	161.85	155.72
Instruments and related products.....	133.32	132.59	133.50	131.45	132.03	134.23	132.75	131.29	131.43	128.21	126.77	128.74	126.98	128.21	120.69
Miscellaneous manufacturing industries.....	108.08	108.64	109.20	108.64	108.25	109.02	106.90	105.72	105.06	103.22	101.64	103.88	102.96	103.74	98.50
Nondurable goods.....	118.95	118.26	118.78	117.69	117.99	119.60	118.21	117.51	118.00	116.51	116.22	115.31	114.34	115.53	109.05
Food and kindred products.....	127.98	124.18	124.00	123.20	124.74	124.64	123.41	121.29	124.15	121.72	122.36	120.66	119.48	120.77	114.24
Tobacco manufactures.....	118.65	110.93	105.56	106.64	106.39	98.26	97.73	96.11	97.89	93.38	104.15	111.72	103.02	97.99	93.99
Textile mill products.....	96.47	96.96	97.04	96.80	96.80	99.95	99.46	98.57	98.81	97.58	95.65	95.63	94.07	95.47	91.05
Apparel and other textile products.....	83.42	83.90	84.85	83.78	83.07	84.37	83.77	83.77	83.77	83.85	81.85	83.49	82.67	82.93	79.78
Paper and allied products.....	142.80	140.53	140.70	140.37	142.04	144.29	142.43	142.66	143.32	141.37	140.61	139.21	137.60	139.32	130.85
Printing and publishing.....	145.51	145.15	145.92	144.02	143.26	148.59	145.15	144.77	144.75	142.82	141.31	141.31	140.18	141.70	133.28
Chemicals and allied products.....	150.28	150.18	150.48	149.76	150.12	150.36	149.52	148.04	147.14	145.95	145.53	144.63	143.72	145.05	136.27
Petroleum and coal products.....	181.45	179.77	176.81	176.81	176.40	170.97	175.07	173.77	172.10	171.17	175.71	169.58	174.50	170.40	159.38
Rubber and plastics products, n e c.....	124.66	127.03	127.26	127.48	128.21	130.31	128.64	128.86	129.90	126.28	126.07	125.97	125.25	126.18	121.18
Leather and leather products.....	92.75	90.02	91.64	92.38	92.74	93.45	90.51	88.80	87.58	87.19	87.52	88.83	87.66	87.79	85.41
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	151.53	148.88	150.75	151.88	151.07	151.78	152.15	151.70	152.11	149.74	150.02	147.33	146.21	147.74	138.85
<b>WHOLESALE AND RETAIL TRADE</b> .....	94.50	93.88	93.80	93.80	93.02	93.18	92.58	92.13	92.46	93.70	93.08	91.55	89.92	91.14	86.40
Wholesale trade.....	136.40	135.26	136.00	135.20	134.67	135.94	133.87	132.59	132.18	131.22	130.17	129.92	128.00	129.85	122.31
Retail trade.....	80.83	80.59	80.49	79.92	79.49	80.14	79.30	79.20	79.69	81.19	80.96	79.58	77.63	78.66	74.95
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	111.20	111.81	112.85	112.48	111.44	110.26	111.23	109.45	108.41	108.04	107.96	108.70	107.30	108.33	101.75
<b>SERVICES</b> .....	96.32	96.26	96.81	95.01	93.98	94.11	94.11	92.81	92.38	92.49	92.84	90.83	89.70	91.26	84.32

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail see Employment and Earnings, table C-2.

<sup>p</sup>=preliminary.

**22. Gross and spendable average weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, in current and 1957-59 dollars, 1960 to date**

Year and month	Total private						Manufacturing					
	Gross average weekly earnings		Spendable average weekly earnings				Gross average weekly earnings		Spendable average weekly earnings			
			Worker with no dependents		Worker with 3 dependents				Worker with no dependents		Worker with 3 dependents	
	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars
1960	\$80.67	\$78.24	\$65.95	\$63.62	\$72.96	\$70.77	\$89.72	\$87.02	\$72.57	\$70.39	\$80.11	\$77.70
1961	82.60	79.27	67.08	64.38	74.48	71.48	92.34	88.62	74.60	71.59	82.18	78.87
1962	85.91	81.55	69.56	66.00	76.99	73.05	96.56	91.61	77.86	73.87	85.53	81.15
1963	88.46	82.91	71.05	66.59	78.56	73.63	99.63	93.37	79.82	74.81	87.58	82.08
1964	91.33	84.49	75.04	69.42	82.57	76.38	102.97	95.25	84.40	78.08	92.18	85.27
1965	95.06	86.50	78.99	71.87	86.30	78.53	107.53	97.84	89.08	81.06	96.78	88.06
1966	98.82	79.27	81.29	71.87	88.66	78.39	112.34	99.33	91.57	80.96	99.45	87.93
1967	101.84	87.57	83.38	71.69	90.86	78.13	114.90	98.80	93.28	80.21	101.26	87.07
1968	107.73	88.89	86.71	71.54	95.28	78.61	122.51	101.08	97.70	80.61	106.75	88.08
1969	114.61	89.75	90.96	71.23	99.99	78.30	129.51	101.42	101.90	79.80	111.44	87.27
1969:												
April	112.13	88.71	89.14	70.52	98.11	77.62	127.58	100.93	100.48	79.49	109.95	86.99
May	113.55	89.55	90.18	71.12	99.19	78.23	128.61	101.43	101.34	79.84	110.74	87.33
June	115.22	90.30	91.40	71.63	100.46	78.73	130.06	101.93	102.30	80.17	111.86	87.66
July	115.90	90.41	91.90	71.68	100.98	78.77	128.88	100.53	101.43	79.12	110.95	86.54
August	116.59	90.59	92.41	71.80	101.51	78.87	129.92	100.95	102.20	79.41	111.75	86.83
September	117.87	91.16	93.35	72.20	102.49	79.27	132.84	102.74	104.34	80.70	114.01	88.17
October	117.31	90.38	92.94	71.60	102.06	78.63	132.28	101.91	103.93	80.07	113.57	87.50
November	117.38	89.95	92.99	71.26	102.11	78.25	132.36	101.43	103.99	79.69	113.63	87.07
December	117.62	89.58	93.17	70.96	102.30	77.91	134.89	102.73	105.85	80.62	115.61	88.05
1970:												
January	116.12	88.10	93.43	70.89	101.97	77.37	131.93	100.10	105.28	79.88	114.48	86.86
February	116.55	87.96	93.76	70.76	102.32	77.22	130.94	98.82	104.53	78.89	113.69	85.80
March	117.92	88.53	94.78	71.16	103.39	77.62	132.40	99.40	105.63	79.30	114.85	86.22
April	117.66	87.81	94.59	70.59	103.18	77.00	131.80	98.36	105.18	78.49	114.37	85.35

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

Spendable average weekly earnings are based on gross average weekly earnings as published in table 21 less the estimated amount of the workers' Federal social security and income tax liability. Since the amount of tax liability depends on the number of dependents supported by the worker as well as on the level of his gross income, spendable earnings have been computed for 2 types of income receivers: (1) A worker with no dependents and (2) a married worker with 3 dependents.

The earnings expressed in 1957-59 dollars have been adjusted for changes in purchasing power as measured by the Bureau's Consumer Price Index.

These series are described in "The Spendable Earnings Series: A Technical Note on its Calculation," in *Employment and Earnings and Monthly Report on the Labor Force*, February 1969, pp. 6-13.

NOTE: For additional detail see *Employment and Earnings*, table C-5.

p=preliminary.

**23. Consumer and Wholesale Price Indexes, annual averages and changes, 1949 to date<sup>1</sup>**

[Indexes: 1957-59=100]

Year	Consumer prices						Wholesale prices					
	All items		Commodities		Services		All commodities		Farm products, processed foods, and feeds		Industrial commodities	
	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change
1949	83.0	-1.0	87.1	-2.6	72.6	4.6	83.5	-5.0	94.3	-11.7	80.0	-2.1
1950	83.8	1.0	87.6	0.6	75.0	3.3	86.8	4.0	98.8	4.8	82.9	3.6
1951	90.5	8.0	95.5	9.0	78.9	5.2	96.7	11.4	112.5	13.9	91.5	10.4
1952	92.5	2.2	96.7	1.3	82.4	4.4	94.0	-2.8	108.0	-4.0	89.4	-2.3
1953	93.2	0.8	96.4	-3.3	86.0	4.4	92.7	-1.4	101.0	-6.5	90.1	.8
1954	93.6	0.4	95.5	-9.9	88.7	3.1	92.9	.2	100.7	-3.3	90.4	.3
1955	93.3	-3.3	94.6	-9.9	90.5	2.0	93.2	.3	95.9	-4.8	92.4	2.2
1956	94.7	1.5	95.5	1.0	92.8	2.5	96.2	3.2	95.3	-6.6	96.5	4.4
1957	98.0	3.5	98.5	3.1	96.6	4.1	99.0	2.9	98.6	3.5	99.2	2.8
1958	100.7	2.8	100.8	2.3	100.3	3.8	100.4	1.4	103.2	4.7	99.5	.3
1959	101.5	.8	100.9	.1	103.2	2.9	100.6	.2	98.4	-4.7	101.3	1.8
1960	103.1	1.6	101.7	.8	106.6	3.3	100.7	.1	98.6	.2	101.3	-----
1961	104.2	1.1	102.3	.6	108.8	2.1	100.3	-4.4	98.6	-----	100.8	-0.5
1962	105.4	1.2	103.2	.9	110.9	1.9	100.6	.3	99.6	1.0	100.8	-----
1963	106.7	1.2	104.1	.9	113.0	1.9	100.3	-3.3	98.7	-9.9	100.7	-1.1
1964	108.1	1.3	105.2	1.1	115.2	1.9	100.5	.2	98.0	-7.7	101.2	.5
1965	109.9	1.7	106.4	1.1	117.8	2.3	102.5	2.0	102.1	4.2	102.5	1.3
1966	113.1	2.9	109.2	2.6	122.3	3.8	105.9	3.3	108.9	6.7	104.7	2.1
1967	116.3	2.8	111.2	1.8	127.7	4.4	106.1	.2	105.2	-3.4	106.3	1.5
1968	121.2	4.2	115.3	3.7	134.3	5.2	108.7	2.5	107.6	2.3	109.0	2.5
1969	127.7	5.4	120.5	4.5	143.7	7.0	113.0	4.0	113.5	5.5	112.7	3.4

<sup>1</sup> Historical price changes are shown in greater detail and for earlier years in the Bureau's *Handbook of Labor Statistics, 1969* (BLS Bulletin 1630), in tables 108-120.

## 24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items

[The official name of the index is, "Consumer Price Index for Urban Wage Earners and Clerical Workers." It measures the average change in prices of goods and services purchased by families and single workers. The indexes shown below represent the average of price changes in 56 metropolitan areas, selected to represent all U.S. urban places having populations of more than 2500.]

[1957=100 unless otherwise specified]

Item and group	General summary													Annual average 1969
	1970					1969								
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	
All items	134.6	134.0	133.2	132.5	131.8	131.3	130.5	129.8	129.3	128.7	128.2	127.6	126.8	127.7
All items (1947-49=100)	165.2	164.4	163.4	162.5	161.7	161.1	160.1	159.3	158.6	157.9	157.3	156.6	155.6	156.7
Food	132.4	132.0	131.6	131.5	130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5	123.7	125.5
Food at home	127.8	127.4	127.4	127.4	126.6	125.8	123.8	122.9	123.6	123.6	123.0	121.8	119.8	121.5
Food away from home	154.7	154.0	152.4	151.5	150.6	149.9	149.0	148.1	146.7	145.8	144.8	143.7	142.8	144.6
Housing	135.1	134.4	133.6	132.2	131.1	130.5	129.8	129.2	128.6	127.8	127.0	126.3	125.8	126.7
Rent	123.0	122.6	122.3	121.8	121.3	121.0	120.5	120.1	119.7	119.3	118.8	118.5	118.1	118.8
Homeownership	153.3	152.1	150.9	148.5	146.8	145.4	144.5	143.6	142.6	141.3	140.0	138.7	138.0	139.4
Apparel and upkeep	131.9	131.1	130.6	130.0	129.3	130.8	130.7	129.8	128.7	126.6	126.8	127.0	126.6	127.1
Transportation	129.9	128.9	127.1	127.3	127.3	126.4	125.6	125.7	123.6	124.2	124.3	124.6	124.0	124.2
Health and recreation	142.9	142.3	141.4	140.7	140.1	139.6	139.1	138.6	138.4	137.7	137.0	136.3	135.7	136.6
Medical care	163.6	162.8	161.6	160.1	159.0	158.1	157.4	156.9	157.6	156.8	155.9	155.2	154.5	155.0
Special groups:														
All items less shelter	132.1	131.5	130.7	130.3	129.8	129.5	128.6	128.1	127.6	127.1	126.7	126.3	125.4	126.3
All items less food	135.5	134.8	133.8	133.0	132.3	131.9	131.4	130.8	130.0	129.3	128.8	128.4	127.9	128.6
All items less medical care	132.9	132.2	131.5	130.8	130.1	129.7	128.9	128.2	127.6	127.0	126.5	126.0	125.2	126.1
Commodities	125.8	125.2	124.5	124.2	123.7	123.6	122.9	122.4	121.7	121.4	121.0	120.5	119.6	120.5
Nondurables	129.8	129.3	128.7	128.4	127.8	127.7	126.7	126.1	125.8	125.2	124.7	124.1	123.0	124.1
Durables	115.9	114.8	114.1	113.7	113.7	113.6	113.5	113.2	111.6	111.9	111.9	111.7	111.3	111.6
Services	154.1	153.4	152.3	150.7	149.6	148.3	147.2	146.5	146.0	145.0	144.0	143.3	142.7	143.7
Commodities less food	122.3	121.6	120.8	120.4	120.1	120.3	120.2	119.8	118.7	118.2	118.1	118.0	117.5	118.0
Nondurables less food	127.5	127.0	126.1	125.8	125.2	125.7	125.5	125.1	124.4	123.3	123.1	123.0	122.4	123.0
Apparel commodities	131.2	130.4	129.9	129.3	128.6	130.3	130.4	129.3	128.1	125.9	126.2	126.4	126.0	126.5
Apparel commodities less footwear	128.0	127.1	126.7	126.2	125.5	127.5	127.7	126.6	125.3	122.8	123.5	123.7	123.4	123.7
Nondurables less food and apparel	125.3	125.0	123.9	123.7	123.2	123.0	122.6	122.6	122.2	121.7	121.3	121.0	120.3	121.0
Household durables	108.0	107.8	107.4	106.9	106.6	106.5	106.5	106.4	106.2	106.0	106.0	105.8	105.6	105.5
Housefurnishings	112.2	112.0	111.7	111.1	110.5	110.6	110.4	110.2	109.9	109.4	109.3	109.0	108.8	109.0
Service less rent	161.0	160.1	158.9	157.1	155.8	154.3	153.1	152.3	151.7	150.7	149.6	148.8	148.1	149.2
Household services less rent	160.0	159.1	157.7	155.0	153.2	152.4	151.4	150.4	149.5	148.2	146.9	145.7	145.0	146.4
Transportation services	156.1	155.5	154.5	154.1	152.9	148.4	145.8	145.1	144.0	143.1	142.5	142.3	141.8	142.9
Medical care services	179.3	178.4	177.0	175.2	173.8	172.8	171.8	171.2	172.2	171.1	170.1	169.1	168.2	168.9
Other services	152.3	151.4	150.3	149.8	149.4	148.9	148.2	147.6	147.2	146.5	145.7	145.2	144.7	145.5
Other index bases	U.S. average for groups, subgroups, and selected items													
FOOD	132.4	132.0	131.6	131.5	130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5	123.7	125.5
Food away from home	154.7	154.0	152.4	151.5	150.6	149.9	149.0	148.1	146.7	145.8	144.8	143.7	142.8	144.6
Restaurant meals	154.8	154.2	152.5	151.6	150.7	150.2	149.3	148.3	147.2	146.2	145.1	144.0	143.0	144.9
Snacks	134.6	134.0	132.4	132.0	131.4	129.9	129.2	128.8	126.2	125.6	125.1	124.4	124.1	125.4
Food at home	127.8	127.4	127.4	127.4	126.6	125.8	123.8	122.9	123.6	123.6	123.0	121.8	119.8	121.5
Cereals and bakery products	128.0	127.6	127.0	126.3	125.5	124.9	124.1	123.7	123.0	122.6	122.6	122.0	121.6	122.4
Flour	113.2	114.2	113.1	112.1	111.9	110.9	111.2	111.6	111.2	111.4	111.6	112.1	112.2	111.5
Cracker meal	135.7	134.3	132.9	130.2	127.8	127.9	127.2	126.9	125.8	124.7	123.3	122.1	119.3	122.3
Corn flakes	130.5	130.0	130.4	130.2	130.2	130.0	129.7	129.6	129.4	129.4	129.0	129.0	127.9	129.2
Rice	115.0	114.8	114.4	114.2	113.8	113.4	113.0	113.0	112.9	112.6	112.3	112.1	112.0	112.3
Bread, white	134.1	133.3	133.4	132.6	132.2	131.1	129.7	129.1	128.8	128.1	128.2	127.2	127.1	128.1
Bread, whole wheat	125.3	125.7	125.6	125.5	124.4	124.1	123.4	122.5	121.6	120.3	120.9	119.6	119.6	120.5
Cookies	104.7	103.4	102.4	101.7	101.3	100.9	99.8	99.8	101.0	100.9	100.9	100.1	100.9	100.6
Layer cake	121.5	121.7	121.3	119.9	118.1	118.0	117.1	115.4	113.2	113.8	113.6	114.1	113.9	113.7
Cinnamon rolls	118.5	118.2	116.4	116.7	116.3	115.8	115.1	115.2	113.2	112.8	113.4	113.2	111.9	113.1
Meats, poultry, and fish	130.5	130.9	130.2	129.7	128.8	127.2	127.2	127.6	129.0	127.9	127.6	125.3	119.9	123.2
Meats	135.0	135.6	134.7	133.9	132.9	131.3	131.1	132.0	133.1	131.9	131.7	129.5	123.4	126.8
Beef and veal	135.9	136.5	133.6	133.0	132.2	130.6	131.5	132.9	135.0	135.4	136.8	134.6	127.9	129.5
Steak, round	129.0	131.1	126.9	126.4	126.2	123.2	125.2	126.8	128.1	129.9	132.5	131.0	124.1	124.4
Steak, sirloin	124.3	124.5	121.8	120.4	121.4	119.0	121.1	123.4	128.3	127.4	131.1	129.6	120.7	121.7
Steak, porterhouse	129.2	130.5	126.8	126.4	126.6	123.9	125.9	129.0	132.9	132.7	135.5	133.0	125.2	126.4
Rump roast	124.2	125.1	121.1	120.1	120.7	118.8	119.5	121.1	122.1	123.4	125.0	123.0	117.2	118.4
Rib roast	142.7	142.8	141.2	141.8	141.6	140.5	140.9	140.8	145.9	146.5	150.1	147.1	138.1	139.7
Chuck roast	128.0	130.0	126.9	126.7	122.1	123.2	122.7	125.3	127.2	128.7	131.0	127.9	121.5	122.3
Hamburger	142.8	142.4	140.8	140.5	138.7	137.8	138.4	139.1	140.9	140.5	140.0	137.9	131.4	134.0
Beef liver	121.8	121.1	120.5	119.9	118.7	118.6	117.9	117.8	117.8	117.8	115.4	112.1	109.6	113.2
Veal cutlets	171.8	171.1	168.1	166.0	164.0	162.0	162.1	162.8	162.8	162.1	161.1	159.8	154.2	156.4

24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970					1969							Annual average 1969	
		May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June		May
<b>FOOD—Continued</b>															
<b>Meats, poultry, and fish—Continued</b>															
<b>Meats—Continued</b>															
Pork.....		134.8	135.9	137.9	137.2	135.6	133.3	132.0	132.7	133.7	130.2	129.0	126.1	118.8	125.2
Chops.....		135.1	135.6	139.7	139.5	136.9	135.7	134.1	134.0	137.6	135.7	136.4	134.8	122.4	129.6
Loin roast.....	Apr. 60	143.6	143.5	146.1	146.2	143.7	143.4	140.4	141.8	143.0	141.3	141.9	139.7	139.8	135.8
Pork sausage.....	Dec. 63	150.4	150.6	150.6	148.6	146.7	146.8	148.3	149.1	149.6	146.0	143.6	137.2	130.0	137.8
Ham, whole.....		129.0	133.5	135.3	134.0	136.9	130.7	124.8	123.9	121.8	117.0	114.2	114.2	111.1	117.1
Picnics.....	Dec. 63	138.5	139.9	142.1	139.9	137.7	134.7	136.0	136.5	135.5	134.5	130.9	124.8	121.5	127.5
Bacon.....		137.1	138.2	138.7	138.8	136.7	133.1	132.4	134.9	135.6	128.7	126.8	124.1	118.4	124.3
<b>Other meats</b>															
Lamb chops.....	Dec. 63	137.9	138.0	137.3	136.0	135.3	134.4	133.6	133.3	132.6	131.2	128.8	127.2	124.0	127.7
Frankfurters.....		141.2	142.0	142.2	140.8	140.9	140.4	139.4	139.9	139.7	139.3	139.2	139.1	136.2	137.0
Ham, canned.....	Dec. 63	138.2	137.4	136.1	134.2	134.2	134.6	134.7	134.7	135.4	133.7	129.4	127.6	122.2	127.4
Bologna sausage.....	Dec. 63	136.7	138.3	138.3	136.6	134.8	130.4	127.8	125.1	122.6	120.6	115.6	117.6	116.6	120.0
Salami sausage.....	Dec. 63	139.5	139.7	138.4	137.7	137.2	136.6	136.1	136.2	136.2	134.5	132.0	128.8	123.7	129.3
Liverwurst.....	Dec. 63	132.0	131.8	130.4	128.6	128.0	127.9	127.1	127.2	127.0	126.0	132.7	121.5	118.6	122.1
Liverwurst.....	Dec. 63	132.9	131.9	131.6	131.4	130.1	129.9	129.8	129.9	128.0	126.3	125.0	122.2	120.6	123.7
<b>Poultry</b>															
Frying chicken.....		97.1	97.1	97.9	99.1	99.5	97.9	99.1	98.2	102.0	101.4	100.4	97.3	93.3	96.9
Chicken breasts.....	Dec. 63	95.3	95.4	96.7	98.5	99.4	97.9	99.5	98.6	103.8	103.3	103.1	99.2	94.7	98.1
Turkey.....	Dec. 63	109.2	109.4	110.4	110.4	111.0	110.4	110.8	112.0	113.8	113.0	109.4	107.6	104.4	108.4
Turkey.....	Dec. 63	119.5	119.0	116.9	115.9	114.1	110.3	110.0	107.2	105.9	104.7	101.8	101.1	98.7	102.8
<b>Fish</b>															
Shrimp, frozen.....	Dec. 63	142.3	141.1	139.8	138.3	137.0	135.4	134.0	133.4	132.2	131.5	130.6	129.8	129.5	130.6
Fish, fresh or frozen.....		127.8	126.8	127.4	126.2	125.4	124.4	122.9	122.5	121.0	120.8	119.7	118.3	118.2	119.3
Tuna, fish, canned.....		153.0	152.5	150.9	148.1	145.2	143.4	141.1	139.9	138.6	137.2	134.5	133.1	132.0	134.6
Sardines, canned.....	Dec. 63	126.0	124.5	123.1	121.6	120.5	117.9	116.7	116.2	114.9	114.4	113.6	113.8	114.0	114.4
Sardines, canned.....	Dec. 63	130.8	129.3	126.9	126.5	126.0	125.4	125.0	124.9	124.2	123.5	124.4	124.0	123.7	124.2
<b>Dairy products</b>															
Milk, fresh, grocery.....		129.9	129.5	129.4	128.8	128.4	127.6	126.3	125.8	125.5	125.0	124.4	124.0	123.6	124.5
Milk, fresh, delivered.....		126.6	126.5	126.8	126.2	126.1	125.0	123.4	122.8	122.8	122.3	121.7	121.3	120.7	121.8
Milk, fresh, skim.....	Dec. 63	134.0	133.9	133.5	133.1	132.7	132.3	130.4	130.1	129.4	128.7	128.0	127.6	127.3	128.4
Milk, evaporated.....	Dec. 63	129.2	128.3	128.4	127.3	127.4	126.0	125.0	124.3	124.8	124.3	122.9	122.3	121.7	123.0
Ice cream.....		129.7	127.9	127.7	127.4	126.4	125.0	124.3	123.8	124.1	124.1	123.9	124.0	123.8	123.5
Cheese, American process.....		103.4	102.7	102.7	102.1	102.1	102.0	100.7	99.9	100.1	99.5	99.0	99.8	98.8	99.5
Butter.....		157.2	157.3	156.4	154.8	153.1	152.4	151.0	149.9	148.9	148.5	147.7	146.6	146.1	146.8
Butter.....		121.0	120.2	119.5	119.5	119.9	119.6	119.4	119.9	118.3	118.0	118.0	117.8	117.9	118.3
<b>Fruits and vegetables</b>															
Fresh fruits and vegetables.....		136.8	134.7	133.1	132.4	130.9	132.1	127.0	124.0	126.8	130.2	132.3	130.8	130.0	128.4
Apples.....		151.5	148.0	145.7	144.5	141.9	144.1	135.4	130.1	134.9	141.0	145.0	142.4	140.9	138.1
Bananas.....		149.7	141.3	139.6	135.8	134.0	129.3	125.7	131.7	174.6	190.5	192.9	185.3	171.4	162.5
Oranges.....		101.6	101.4	101.9	96.5	94.5	93.3	93.9	100.7	99.6	97.4	97.7	94.5	96.3	95.3
Orange juice, fresh.....	Dec. 63	123.7	122.4	125.4	124.5	121.5	125.0	132.4	131.9	132.1	132.7	127.9	125.4	126.2	128.4
Orange juice, fresh.....	Dec. 63	90.1	89.9	90.6	90.7	90.5	91.5	91.8	92.0	92.1	92.0	91.4	91.8	91.2	90.9
Grapefruit.....		160.1	152.4	150.6	151.7	143.7	142.0	144.1	184.0	205.9	194.6	156.6	143.5	137.3	155.1
Grapes.....		(1)	162.7	(1)	(1)	(1)	(1)	154.3	144.0	137.8	147.4	188.3	(1)	(1)	154.4
Strawberries.....		128.1	134.9	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	126.8	121.5	131.9
Watermelon.....		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	116.1	119.6	159.9	(1)	131.9
Potatoes.....		166.9	159.9	153.3	151.1	144.3	142.0	140.1	137.6	144.5	159.0	165.2	154.5	143.8	144.8
Onions.....		180.0	180.8	171.0	166.9	140.5	136.4	133.2	134.2	139.0	152.2	141.5	135.0	130.5	134.1
Asparagus.....	Dec. 63	138.9	119.3	176.6	(1)	141.6	(1)	(1)	(1)	(1)	(1)	129.6	121.1	118.9	138.7
Cabbage.....		194.3	202.1	204.5	211.3	188.7	173.4	150.6	145.9	135.6	138.3	145.7	155.6	152.6	152.0
Carrots.....		117.3	115.3	122.1	145.3	139.2	146.6	127.1	129.6	128.3	139.6	129.5	119.8	109.7	123.8
Celery.....		160.5	128.7	136.2	143.6	140.5	132.2	131.2	115.5	120.1	130.2	151.8	139.2	134.3	125.6
Cucumbers.....	Dec. 63	154.6	214.0	209.1	208.5	203.4	176.5	122.5	118.5	111.7	122.5	123.0	124.6	161.1	148.1
Lettuce.....		138.9	125.2	123.0	122.7	137.6	189.5	177.9	133.3	130.8	124.2	126.8	120.2	149.3	144.4
Peppers, green.....	Dec. 63	344.4	299.7	265.5	283.9	231.2	217.2	160.9	145.7	147.8	146.4	165.6	180.7	188.0	172.4
Spinach.....	Dec. 63	117.5	119.9	118.3	122.0	120.3	121.8	116.5	120.1	118.0	117.2	118.8	111.1	109.6	114.8
Tomatoes.....	Dec. 63	145.2	159.0	136.1	134.8	168.1	177.5	146.7	119.0	103.2	116.3	131.0	158.0	173.8	138.1
<b>Processed fruits and vegetables</b>															
Fruit cocktail, canned.....		118.3	118.0	117.3	117.3	117.1	117.1	116.8	116.6	116.9	116.7	116.4	116.3	116.3	116.3
Pears, canned.....	Dec. 63	106.3	106.2	105.3	104.9	105.3	106.2	105.4	105.6	106.6	106.3	107.1	106.3	106.0	106.4
Grapefruit-pineapple juice, canned.....	Dec. 63	105.6	104.9	104.9	105.4	106.0	106.4	106.9	107.6	108.2	108.8	108.6	108.9	109.0	108.7
Orange juice concentrate, frozen.....	Dec. 63	105.5	105.2	104.1	103.7	103.0	102.4	102.6	102.2	101.8	101.0	100.4	99.9	99.1	100.5
Lemonade concentrate, frozen.....	Apr. 60	92.4	92.6	93.5	96.5	96.4	97.4	97.2	98.2	99.4	100.0	100.4	101.0	103.7	98.9
Beets, canned.....	Dec. 63	115.9	116.2	115.0	114.1	113.9	113.6	113.3	112.8	113.3	112.8	113.3	112.7	113.4	113.2
Peas, green, canned.....		122.0	123.1	121.8	122.2	122.4	122.4	123.1	122.9	122.9	122.7	121.7	121.0	121.1	121.7
Tomatoes, canned.....		133.3	130.7	128.0	127.2	126.7	126.6	125.5	124.8	124.1	124.6	124.5	124.1	123.8	124.7
Dried beans.....	Dec. 63	121.3	121.5	122.0	123.4	123.1	123.3	123.6	124.3	125.0	125.0	124.7	124.9	125.4	124.7
Broccoli, frozen.....	Dec. 63	112.9	113.0	112.7	111.8	110.8	109.6	108.0	106.7	107.5	106.7	105.4	104.9	103.2	104.7
<b>Other food at home</b>															
Eggs.....		113.7	113.8	116.0	118.1	117.7	116.6	112.9	111.0	110.5	110.5	107.2	106.6	107.1	109.9
Fats and oils:		97.7	103.6	122.6	141.0	143.0	140.6	122.3	114.5	113.8	114.4	95.6	92.5	97.4	112.1
Margarine.....	Dec. 63	111.4	108.8	106.1	105.6	105.6	105.0	103.7	102.7	102.2	102.4	103.1	103.5	102.8	103.0
Salad dressing, Italian.....	Dec. 63	103.2	102.3	102.2	101.9	102.5	102.6	102.5	102.8	102.3	102.3	102.4	103.4	103.2	102.6

24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Item or group	Other index bases	1970					1969								Annual average 1969
		May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	
<b>FOOD—Continued</b>															
Other food at home—Continued															
Nonalcoholic beverages		115.2	114.0	112.4	110.7	109.1	107.4	106.1	104.3	103.7	103.8	103.3	103.4	102.7	103.7
Coffee, can and bag		103.6	102.2	99.7	97.4	94.9	92.3	90.0	87.0	86.6	86.7	86.3	86.6	86.6	87.5
Coffee, instant	July 61	114.7	114.1	113.1	111.0	109.6	108.0	106.0	104.2	103.8	103.9	103.6	103.7	103.0	103.2
Tea		104.8	103.6	103.1	103.6	103.1	102.9	102.2	102.1	102.0	102.0	102.0	102.0	100.8	101.8
Cola drink		163.0	162.0	161.9	160.3	159.3	158.4	158.7	158.0	156.8	156.6	155.3	155.1	153.8	155.3
Carbonated fruit drink	Dec. 63	130.0	128.5	127.4	126.0	125.5	124.8	124.7	124.5	123.4	123.1	122.7	121.9	120.4	121.9
Prepared and partially prepared foods															
Bean soup, canned	Dec. 63	110.1	109.8	109.5	109.0	108.5	108.2	107.6	107.4	106.9	106.7	106.2	105.9	105.6	106.2
Chicken soup, canned	Dec. 63	111.1	110.5	110.4	110.9	109.7	108.8	107.2	106.3	105.6	105.4	105.1	105.1	105.2	105.0
Spaghetti, canned	Dec. 63	102.3	102.0	101.8	101.1	100.8	100.3	99.5	98.3	98.1	98.3	98.0	97.8	98.2	98.0
	Dec. 63	123.2	122.7	121.8	121.1	120.8	120.4	119.8	118.9	117.2	117.0	116.4	116.2	116.2	117.1
Mashed potatoes, instant	Dec. 63	110.7	110.6	110.5	110.3	109.7	109.6	110.0	109.6	108.9	108.5	108.1	107.7	107.7	107.2
Potatoes, french fried, frozen	Apr. 60	93.5	93.2	93.2	92.8	92.7	92.5	92.1	92.8	92.7	92.5	91.8	90.8	90.6	91.4
Baby foods, canned		112.5	112.9	112.0	112.0	112.1	111.9	111.4	111.7	112.7	112.1	111.7	110.9	110.9	111.6
Sweet pickle relish	Dec. 63	117.6	118.0	117.2	116.0	115.6	115.0	114.3	114.2	112.6	112.0	111.0	111.8	112.5	112.8
Pretzels	Dec. 63	110.1	110.0	109.1	108.3	107.1	107.5	107.0	107.6	107.6	107.6	107.4	107.0	106.8	107.1
<b>HOUSING</b>															
Shelter		135.1	134.4	133.6	132.2	131.1	130.5	129.8	129.2	128.6	127.8	127.0	126.3	125.8	126.7
Rent		144.7	143.7	142.8	140.9	139.6	138.5	137.7	137.0	136.1	135.1	134.0	133.0	132.4	133.6
Homeownership		123.0	122.6	122.3	121.8	121.3	121.0	120.5	120.1	119.7	119.3	118.8	118.5	118.1	118.8
		153.3	152.1	150.9	148.5	146.8	145.4	144.5	143.6	142.6	141.3	140.0	138.7	138.0	139.4
Mortgage interest rates	Dec. 63	149.2	149.1	148.9	143.5	139.9	139.6	139.3	138.8	138.2	137.1	135.8	134.9	134.3	134.4
Property taxes		139.4	138.2	134.7	133.6	133.0	132.0	131.5	130.5	130.4	129.9	128.7	128.2	128.3	129.0
Property insurance rates		153.2	153.6	153.2	152.8	152.5	153.3	152.3	150.7	149.5	150.3	149.6	147.4	146.9	148.7
Maintenance and repairs		149.9	148.8	148.3	146.9	146.4	145.8	144.9	144.5	143.8	142.4	141.5	140.8	139.6	140.7
Commodities	Dec. 63	118.4	117.8	117.2	116.5	116.1	115.9	116.0	116.2	116.7	117.2	117.5	117.8	117.5	116.1
Exterior house paint		119.9	119.9	121.0	119.8	119.3	119.1	118.7	118.0	117.6	116.5	115.7	115.6	115.9	116.5
Interior house paint	Dec. 63	115.0	114.6	114.7	114.8	114.1	114.3	113.6	113.8	113.1	112.3	112.2	111.6	112.4	
Services	Dec. 63	147.9	146.7	146.2	144.7	144.1	143.5	142.2	141.6	140.4	138.2	136.9	135.7	134.2	136.4
Repainting living and dining rooms		191.7	187.9	186.8	185.4	184.6	183.6	182.6	181.8	179.7	178.3	176.1	174.0	171.5	174.6
Reshingling roofs		167.1	165.6	166.1	165.4	164.9	164.1	163.0	162.3	161.4	157.6	155.4	154.2	152.3	155.8
Residing houses	Dec. 63	137.4	137.1	136.7	135.0	134.6	134.0	134.2	133.7	133.0	130.0	129.3	128.6	127.6	129.0
Replacing sinks	Dec. 63	150.4	149.1	148.2	145.6	145.2	144.5	142.6	142.0	140.4	139.0	137.8	137.2	135.3	137.4
Repairing furnaces	Dec. 63	153.7	152.9	152.4	151.3	150.0	149.7	145.2	144.1	142.8	141.2	139.7	137.7	136.4	139.1
Fuel and utilities		116.4	116.3	115.6	114.9	114.6	114.6	114.2	113.5	113.3	113.0	112.6	112.7	112.6	112.9
Fuel oil and coal		121.0	120.9	120.8	120.6	119.7	119.2	118.9	118.4	118.1	117.7	117.4	117.5	117.5	117.8
Fuel oil, #2		118.0	117.8	117.8	117.5	116.6	116.2	116.0	115.5	115.4	115.2	115.0	115.0	114.9	115.1
Gas and electricity		115.8	115.7	114.8	114.6	114.1	113.7	113.2	112.2	112.0	111.5	110.9	111.3	111.2	111.5
Gas		123.2	123.1	121.9	121.5	120.5	119.8	118.8	116.9	116.7	116.1	115.7	116.4	116.4	116.8
Electricity		108.2	108.0	107.5	107.4	107.4	107.2	107.2	106.9	106.8	106.4	105.6	105.7	105.5	105.8
Other utilities:															
Residential telephone services		104.9	104.8	103.9	102.8	103.0	103.8	103.7	103.6	103.6	103.6	103.6	103.6	103.4	103.5
Residential water and sewerage		151.0	151.0	151.0	147.5	147.5	147.5	147.5	145.3	145.3	145.3	145.3	143.4	143.4	144.4
Household furnishings and operation		122.5	122.0	121.6	120.8	120.1	120.0	119.6	119.3	119.0	118.5	118.2	117.9	117.4	117.9
Housefurnishings		112.2	112.0	111.7	111.1	110.5	110.6	110.4	110.2	109.9	109.4	109.3	109.0	108.8	109.0
Textiles		116.2	116.7	116.4	115.7	114.2	116.1	115.7	115.0	115.2	113.8	114.8	114.8	114.4	114.4
Sheets, percale or muslin		121.8	123.6	122.7	120.8	117.3	122.2	121.7	120.1	119.8	116.2	118.7	120.2	118.3	119.6
Curtains, tailored, polyester marquisette		113.2	113.3	113.7	112.7	111.6	112.3	112.1	112.0	112.0	112.0	111.6	111.5	111.1	110.9
Bedspreads, chiefly cotton, tufted		116.8	117.8	117.1	116.6	115.0	117.6	117.7	117.1	116.9	115.7	116.5	116.9	117.3	116.2
Drapery fabric, cotton or rayon/acetate		127.3	127.0	126.5	125.8	125.0	126.6	126.0	124.1	124.5	125.0	124.8	122.2	122.1	123.1
Slipcovers, ready made, chiefly cotton	Dec. 63	112.7	111.8	112.1	112.3	111.0	110.4	110.0	111.1	110.0	110.3	110.1	109.6	109.4	109.6
Furniture and bedding		126.6	126.0	125.4	124.6	124.1	123.9	123.7	123.6	122.9	122.4	122.1	121.8	121.6	121.5
Bedroom furniture chest and dresser <sup>a</sup>	Mar. 70	100.5	100.4												
Living room suites, good and inexpensive quality		128.1	127.9	127.3	126.1	126.0	126.3	125.8	125.9	124.9	124.8	123.9	123.4	123.3	123.7
Lounge chairs, upholstered	Dec. 63	122.5	121.9	121.0	120.0	120.0	118.8	118.6	118.9	119.0	117.9	116.5	116.2	114.6	115.8
Dining room chairs <sup>1</sup>	Mar. 70	100.2	100.2												
Sofas, upholstered	Dec. 63	119.1	118.7	118.0	116.5	116.3	116.5	115.7	115.9	114.8	115.1	114.3	113.8	114.3	114.2
Sofas, dual purpose		123.3	122.6	120.6	120.0	120.0	120.0	120.2	118.9	118.8	118.6	117.9	117.1	116.2	117.2
Box springs	Dec. 63	(9)	(9)	124.2	122.5	122.4	122.6	122.5	124.1	123.7	123.2	123.0	123.0	122.8	122.0
Cribs	Dec. 63	121.4	120.0	120.6	119.9	119.6	119.8	119.5	119.2	117.1	118.0	117.7	117.5	117.1	117.0
Floor coverings		107.4	106.9	106.9	106.9	106.8	107.1	107.1	107.1	107.0	106.3	106.4	106.2	106.2	106.5
Rugs, soft surface		104.2	103.8	103.9	104.0	104.0	104.7	104.8	104.9	104.9	104.1	104.4	104.1	104.2	104.5
Rugs, hard surface		113.7	113.7	113.7	113.6	113.2	112.5	112.5	112.1	111.8	111.6	111.2	111.1	111.1	111.2
Tile, vinyl	Dec. 63	113.1	111.8	111.7	111.3	110.3	110.3	110.1	109.6	109.3	108.5	108.2	108.0	108.0	108.4
Appliances		87.1	87.1	86.8	86.6	86.5	86.4	86.3	86.2	86.0	86.0	85.9	85.8	85.6	85.8
Washing machines, electric, automatic		92.9	92.9	92.4	92.3	91.8	91.5	91.2	90.9	91.0	90.8	90.5	90.5	90.2	90.6
Vacuum cleaners, canister type		81.5	81.6	81.3	81.5	81.8	81.4	81.4	81.5	81.3	82.1	82.0	81.8	81.4	81.5

See footnotes at end of table.

## 24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970					1969					Annual average 1969			
		May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.		July	June	May
<b>HOUSING—Continued</b>															
Household furnishings and operation—Con.															
Appliances—Continued															
Refrigerators or refrigerator-freezers, electric		87.3	87.5	87.2	86.8	86.1	86.0	85.8	85.8	85.8	85.7	85.4	85.2	84.9	85.3
Ranges, free standing, gas or electric		100.2	100.7	100.1	99.3	99.0	99.0	98.8	98.5	98.1	98.2	97.6	97.4	97.0	97.7
Clothes dryers, electric, automatic	Dec. 63	101.9	102.1	101.8	101.3	100.8	100.6	100.5	99.8	99.6	99.7	99.5	99.5	99.1	99.4
Air conditioners, demountable	June 64	101.3	101.3	(2)	(1)	(1)	(1)	(1)	(1)	(1)	99.8	99.7	99.5	(2)	99.5
Room heaters, electric, portable	Dec. 63	(1)	(1)	100.5	100.6	100.6	100.4	99.8	99.6	(2)	(1)	(1)	(1)	(1)	99.8
Garbage disposal units	Dec. 63	107.4	107.2	106.6	105.9	105.5	105.0	105.0	104.7	104.3	103.9	103.9	103.9	103.6	103.9
Other house furnishings:															
Dinnerware, earthenware		138.3	138.1	138.1	137.1	136.2	135.6	135.2	134.8	134.3	133.5	133.6	132.7	132.5	133.3
Flatware, stainless steel	Dec. 63	120.8	120.7	120.4	120.1	119.2	119.0	119.6	119.6	119.8	119.6	119.5	118.9	118.1	118.7
Table lamps, with shade	Dec. 63	121.4	121.2	119.9	118.6	118.3	118.7	118.3	117.8	116.0	115.4	115.3	114.0	113.6	114.6
Housekeeping supplies:															
Laundry soaps and detergents		110.0	109.8	110.0	108.8	108.1	107.1	106.2	106.8	107.4	107.4	106.4	106.5	106.1	106.3
Paper napkins		138.5	136.4	134.7	131.3	129.8	129.1	130.0	129.0	128.6	128.0	127.2	128.1	127.1	128.2
Toilet tissue		129.4	127.8	126.8	123.5	121.9	120.3	121.2	121.2	120.7	119.1	119.5	119.8	118.0	118.9
Housekeeping services:															
Domestic service, general housework		185.5	184.8	182.5	182.0	180.5	179.9	178.7	177.6	175.1	173.9	172.9	172.2	171.9	173.5
Baby sitter service	Dec. 63	141.5	140.9	140.0	138.6	137.6	137.4	136.6	135.7	135.6	134.9	134.5	133.7	133.1	133.7
Postal charges		165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5
Laundry, flatwork, finished service	Dec. 63	150.0	149.8	149.1	147.9	147.5	146.8	144.3	143.2	142.7	141.4	140.6	140.2	139.6	140.6
Licensed day care service, preschool child	Dec. 63	132.5	132.1	132.0	132.0	132.0	131.8	131.8	130.7	130.3	129.7	128.4	128.1	127.2	127.9
Washing machine repairs	Dec. 63	140.4	139.8	139.6	138.3	136.6	135.4	135.1	135.2	134.4	133.5	133.0	131.6	131.0	131.7
<b>APPAREL AND UPKEEP</b>															
Men's and boys'		131.9	131.1	130.6	130.0	129.3	130.8	130.7	129.8	128.7	126.6	126.8	127.0	126.6	127.1
Men's:															
Topcoats, wool		(1)	(1)	144.1	141.0	143.7	147.4	148.5	145.9	144.0	(1)	(1)	(1)	(1)	142.9
Suits, year round weight		160.2	159.8	157.3	153.9	154.2	158.2	158.2	156.4	154.5	150.7	149.6	150.0	150.1	150.9
Suits, tropical weight	June 64	138.4	137.4	136.6	(1)	(1)	(1)	(1)	(1)	(1)	(1)	127.7	130.8	130.0	128.6
Jackets, lightweight	Dec. 63	125.1	125.3	125.3	125.6	125.5	125.7	125.6	125.4	125.2	125.0	125.1	125.6	125.3	124.6
Slacks, wool or wool blend		132.7	131.8	131.0	129.6	130.0	131.2	131.7	130.4	128.9	127.1	126.1	126.6	126.3	127.4
Slacks, cotton or manmade blend		123.4	123.0	120.9	119.4	117.6	117.6	117.1	115.6	115.2	114.5	112.1	114.3	114.3	113.9
Trousers, work, cotton		117.1	117.2	116.6	116.4	116.0	117.2	117.0	116.9	116.9	116.8	116.9	116.7	116.5	116.6
Shirts, work, cotton		126.5	126.4	126.0	124.9	124.4	124.2	124.7	124.2	123.2	123.3	123.1	123.4	122.6	122.9
Shirts, business, cotton		124.2	124.1	123.7	123.2	122.5	122.3	122.2	122.2	121.8	121.6	121.5	121.7	121.3	121.3
T-shirts, chiefly cotton		134.6	134.1	132.9	133.2	132.4	131.9	131.8	131.5	130.6	130.6	130.1	129.4	128.8	130.0
Socks, cotton		122.6	122.6	121.5	121.3	120.9	120.9	120.4	121.1	121.6	121.6	121.1	120.5	119.4	119.8
Handkerchiefs, cotton	Dec. 63	115.1	114.4	114.2	113.9	113.8	113.8	113.3	112.9	112.7	112.4	112.3	112.3	111.5	112.1
Boys':															
Coats, all purpose, cotton or cotton blend	Dec. 63	(1)	(1)	114.6	114.3	114.2	116.1	115.9	115.2	113.5	(1)	(1)	(1)	(1)	112.4
Sport coats, wool or wool blend	Dec. 63	(1)	(1)	(1)	(1)	127.8	130.3	131.0	126.4	122.5	(1)	(1)	(1)	(1)	125.6
Dungarees, cotton or cotton blend		130.1	129.5	129.5	129.4	128.9	127.1	127.9	126.9	127.4	127.4	127.2	127.0	126.0	126.3
Undershorts, cotton		131.6	130.9	130.5	129.9	130.1	130.3	130.3	129.0	128.9	128.4	127.9	126.6	126.1	127.1
Women's and girls'															
Women's:															
Coats, heavyweight, wool or wool blend		(1)	(1)	(1)	(1)	124.9	136.2	139.9	139.9	136.0	(1)	(1)	(1)	(1)	134.4
Skirts, wool or wool blend	Sept. 61	(1)	(1)	(1)	121.0	135.6	144.6	145.3	133.9	129.4	(1)	(1)	(1)	(1)	129.3
Skirts, cotton or cotton blend	Mar. 62	136.3	135.2	(1)	(1)	(1)	(1)	(1)	(1)	(1)	121.8	130.7	135.0	134.4	129.3
Blouses, cotton		129.7	127.1	125.3	124.9	126.9	127.6	127.2	125.4	122.7	122.2	122.4	122.7	123.4	123.6
Dresses, street, chiefly manmade fiber		156.5	158.9	158.5	158.7	155.9	158.3	158.8	155.9	152.5	147.3	147.6	147.3	147.7	150.2
Dresses, street, wool or wool blend		(1)	(1)	(1)	(1)	144.2	145.7	144.8	145.7	140.8	(1)	(1)	(1)	(1)	141.0
Dresses, street, cotton		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	136.6	149.9	150.6	150.5	147.2
Housedresses, cotton		(1)	(1)	(1)	153.5	152.3	153.0	152.1	150.7	149.0	150.0	148.8	149.6	147.3	147.9
Slips, nylon		115.6	114.7	114.2	114.6	113.4	112.3	112.2	111.9	111.9	111.6	109.7	110.5	110.1	110.8
Panties, acetate		113.3	112.7	113.2	112.7	112.0	111.2	111.4	110.5	109.9	109.1	108.6	108.4	108.8	109.2
Girdles, manmade blend		121.4	121.3	121.4	120.9	120.5	120.8	120.5	120.2	119.5	119.4	119.0	118.7	119.0	119.1
Brassieres, cotton	Dec. 63	129.2	128.4	127.4	125.6	124.4	124.9	123.8	123.1	122.9	122.5	122.2	122.0	120.8	121.7
Hose, nylon, seamless		99.1	98.9	99.0	98.3	98.5	99.8	99.8	99.4	99.2	98.8	99.6	99.0	99.1	99.1
Anklets, cotton	Dec. 63	120.1	120.1	120.5	122.5	121.0	121.5	118.5	118.5	118.4	118.2	118.1	117.6	116.6	117.2
Gloves, fabric, nylon or cotton	Dec. 63	111.2	110.6	110.9	111.0	110.7	110.5	109.8	109.2	109.0	109.3	108.9	108.9	108.6	108.6
Handbags, rayon faille or plastic	Dec. 63	119.3	118.8	118.2	118.5	116.4	117.3	117.2	115.5	114.8	114.1	113.8	113.7	113.0	113.6
Girls':															
Raincoats, vinyl plastic or chiefly cotton	Dec. 63	(1)	(1)	114.8	118.9	118.1	125.6	124.4	121.7	120.8	(1)	(1)	(1)	(1)	120.9
Skirts, wool or wool blend		(1)	(1)	(1)	(1)	117.4	123.2	123.4	124.0	(1)	(1)	(1)	(1)	(1)	121.4

See footnotes at end of table.

## 24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970					1969							Annual average 1969	
		May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June		May
<b>APPAREL AND UPKEEP—Continued</b>															
<b>Women's and girls'—Continued</b>															
<b>Girls' Continued</b>															
Dresses, cotton		129.4	135.1	134.0	132.3	129.8	133.6	136.3	137.4	136.9	135.4	134.2	133.9	134.1	134.4
Slacks, cotton	Dec. 63	(9)	(9)	125.5	125.4	128.4	131.8	131.7	127.9	(9)	(9)	(9)	(9)	(9)	125.8
Slips, cotton blend	Dec. 63	107.3	107.5	108.1	107.8	108.0	108.0	108.6	108.5	107.7	108.1	107.2	107.0	107.5	
Handbags	Dec. 63	117.4	115.7	115.1	114.9	113.7	114.2	114.7	111.1	108.9	108.3	108.2	106.5	108.5	
<b>Footwear</b>		147.6	147.2	146.3	145.0	144.4	144.4	143.9	143.3	142.3	141.5	139.9	140.1	139.6	140.3
<b>Men's:</b>															
Shoes, street, oxford		145.3	144.7	143.8	142.3	141.3	142.6	142.1	141.5	140.1	138.7	137.5	138.6	138.2	138.4
Shoes, work, high		142.9	142.6	142.1	141.4	140.9	139.8	139.5	139.0	138.4	138.1	137.3	136.8	136.1	136.7
<b>Women's:</b>															
Shoes, street, pump		157.3	157.3	155.5	151.6	151.8	152.7	152.5	152.0	150.8	149.9	147.3	147.9	148.0	148.6
Shoes, evening, pump	Dec. 63	126.7	125.8	125.0	124.8	124.2	123.2	122.9	122.9	122.3	121.8	121.0	120.0	119.1	120.3
Shoes, casual, pump	Dec. 63	138.7	138.3	135.3	135.7	134.2	134.0	133.4	132.0	129.6	128.9	128.2	127.1	127.7	
Houseslippers, scuff	Dec. 63	127.7	127.7	128.2	127.8	128.0	127.5	127.1	126.6	126.4	125.4	123.9	124.0	123.9	124.7
<b>Children's:</b>															
Shoes, oxford		146.6	146.3	146.6	145.9	144.3	144.3	143.3	142.3	141.4	140.7	140.2	139.8	139.4	140.1
Sneakers, boys', oxford type	Dec. 63	122.6	122.0	120.7	120.0	119.6	119.5	119.3	119.1	118.9	118.1	116.9	116.2	115.8	117.2
Dress shoes, girls', strap	Dec. 63	138.3	137.5	138.0	136.6	136.6	136.4	135.7	134.6	134.1	133.1	130.6	131.9	130.7	131.5
<b>Miscellaneous apparel:</b>															
Diapers, cotton gauze		104.9	104.8	104.9	104.3	104.0	104.0	104.1	103.8	103.9	104.0	103.5	103.2	102.7	103.0
Yard goods, cotton		127.6	126.8	125.9	124.6	123.3	123.5	123.1	123.5	123.2	123.2	122.1	123.2	120.5	120.9
<b>Apparel services:</b>															
Drycleaning, men's suits and women's dresses		136.0	135.7	135.2	134.6	133.8	133.3	132.9	132.2	132.0	131.7	130.5	130.2	129.8	130.8
Automatic laundry service	Dec. 63	113.2	113.1	113.2	112.3	112.0	112.0	111.8	111.4	111.3	111.0	111.0	110.4	110.3	110.1
Laundry, men's shirts	Dec. 63	129.0	128.8	128.5	128.0	126.8	126.7	124.3	123.8	123.4	123.2	123.0	122.5	122.1	122.9
Tailoring charges, hem adjustment	Dec. 63	128.8	128.4	127.7	127.4	127.0	127.4	127.6	127.5	126.5	125.4	125.2	125.1	123.5	124.5
Shoe repairs, women's heel lift		126.5	126.3	125.5	125.0	124.6	123.7	123.6	122.7	123.1	121.3	121.1	120.4	120.1	121.3
<b>TRANSPORTATION</b>															
<b>Private</b>		129.9	128.9	127.1	127.3	127.3	126.4	125.6	125.7	123.6	124.2	124.3	124.6	124.0	124.2
<b>Automobiles, new</b>															
Automobiles, used		125.9	124.9	123.0	123.3	123.3	123.4	122.7	122.8	120.5	121.3	121.4	121.8	121.2	121.3
Gasoline, regular and premium		104.1	104.3	104.4	104.6	104.7	104.9	105.1	104.2	99.5	101.0	101.6	101.8	101.8	102.4
Motor oil, premium		127.5	121.1	117.6	117.8	120.7	123.9	124.9	125.8	121.4	125.4	127.0	128.2	126.8	125.3
Tires, new, tubeless		118.6	119.2	115.3	116.7	116.6	116.9	116.3	118.0	117.7	118.0	117.7	118.6	117.3	117.0
Auto repairs and maintenance		142.8	142.6	142.3	141.4	140.7	140.2	140.1	139.6	139.1	138.7	138.1	137.4	136.7	137.5
Auto insurance rates		118.6	118.6	119.4	118.5	118.2	118.2	118.0	117.4	117.0	116.0	116.3	115.5	115.6	116.2
Auto registration		142.9	142.1	141.5	140.2	139.2	137.3	136.6	136.1	135.2	134.5	133.8	133.3	132.9	133.8
<b>Public</b>		179.5	175.6	176.4	176.0	173.4	171.5	164.6	163.7	163.2	160.3	159.0	158.7	158.1	160.2
Local transit fares		140.9	140.9	140.3	140.3	140.3	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	133.6
Taxicab fares	Dec. 63	166.6	165.8	165.8	165.4	165.1	153.0	151.1	150.3	150.3	149.7	149.5	149.1	148.0	148.9
Railroad fares, coach	Dec. 63	185.2	183.9	183.8	183.8	183.3	163.2	163.0	161.7	161.7	160.8	160.5	159.9	159.6	160.4
Airplane fares, chiefly coach	Dec. 63	131.5	131.5	131.5	131.5	131.5	127.5	127.5	127.5	127.5	127.5	127.5	127.5	124.8	126.7
Bus fares, intercity	Dec. 63	121.1	121.1	121.1	117.2	117.2	117.2	115.5	115.1	114.9	114.9	114.9	114.9	114.6	114.0
	Dec. 63	117.8	117.8	117.8	117.4	117.4	111.6	111.6	111.6	112.1	112.1	112.1	112.1	110.7	110.6
	Dec. 63	128.6	128.6	128.6	127.9	127.9	127.9	127.9	127.9	127.9	127.9	127.9	127.9	118.6	122.4
<b>HEALTH AND RECREATION</b>															
<b>Medical care</b>		142.9	142.3	141.4	140.7	140.1	139.6	139.1	138.6	138.4	137.7	137.0	136.3	135.7	136.6
<b>Drugs and prescriptions</b>															
Over-the-counter items	Dec. 63	163.6	162.8	161.6	160.1	159.0	158.1	157.4	156.9	157.6	156.8	155.9	155.2	154.5	155.0
Multiple vitamin concentrates	Dec. 63	101.4	100.9	100.3	100.0	99.7	99.6	99.6	99.4	99.3	99.3	99.2	99.3	99.3	99.2
Aspirin compounds	Dec. 63	109.2	108.6	107.8	107.2	107.2	107.1	107.1	106.9	106.9	107.0	106.9	107.1	107.0	106.9
Liquid tonics	Dec. 63	92.7	92.0	91.7	90.8	92.3	92.8	92.4	92.5	92.4	92.4	92.1	92.2	92.4	92.4
Adhesive bandages, package	Dec. 63	109.2	108.1	107.3	107.4	106.2	106.6	106.2	106.1	105.5	106.8	106.4	106.6	106.2	106.2
Cold tablets or capsules	Dec. 63	101.9	101.9	101.5	101.2	101.3	101.3	101.3	100.8	100.9	100.9	100.8	100.9	100.9	101.0
Cough syrup	Dec. 63	121.4	119.8	119.7	118.2	117.8	117.7	117.1	117.4	117.0	116.5	116.7	117.0	116.9	116.9
Prescriptions		112.7	112.6	112.2	111.5	111.0	110.5	110.0	109.6	109.1	109.2	109.1	109.5	109.3	109.2
Anti-infectives	Mar. 60	116.4	116.0	113.5	113.0	113.4	112.9	114.7	113.7	115.1	114.8	114.8	115.2	115.1	114.5
Sedatives and hypnotics	Mar. 60	90.5	90.3	89.7	89.4	89.3	89.1	89.0	89.0	88.8	88.7	88.6	88.6	88.6	88.6
Ataractics	Mar. 60	63.1	63.0	62.8	63.0	62.8	62.8	62.8	63.0	62.9	62.9	62.8	63.1	63.1	62.8
Anti-spasmodics	Mar. 60	114.2	113.7	112.1	112.0	110.6	110.4	109.6	108.9	107.8	107.6	107.1	106.9	106.4	107.2
Cough preparations	Mar. 60	90.7	90.7	90.0	90.0	89.8	89.8	89.8	89.8	89.7	89.7	89.9	90.0	90.0	89.8
Cardiovasculars and antihypertensives	Mar. 60	102.4	102.2	101.7	101.6	101.5	101.3	101.3	101.3	101.2	101.0	101.0	101.2	101.1	101.1
Analgesics, internal	Mar. 60	118.0	118.1	117.1	115.2	112.7	112.0	111.7	111.4	111.1	110.8	110.2	109.7	109.3	109.4
Anti-obesity	Mar. 60	100.4	100.0	99.0	98.8	98.3	98.0	98.0	97.9	97.7	97.6	97.1	97.0	96.9	97.1
Hormones	Mar. 67	105.2	105.3	104.7	105.0	104.3	103.3	103.2	103.1	103.1	103.1	102.9	102.8	103.0	102.8
Physicians' fees	Mar. 67	107.2	106.0	105.8	105.5	104.8	104.3	104.3	104.2	103.6	103.3	102.9	102.6	102.6	103.1
Family doctor, office visits	Mar. 67	94.2	93.6	93.9	93.6	93.6	94.2	93.9	94.3	93.9	93.9	93.8	93.9	94.9	94.3
Family doctor, house visits															
Obstetrical care, office visits															
Pediatric care, office visits	Dec. 63	161.1	159.2	159.0	157.6	155.9	155.0	154.9	153.9	153.2	152.8	150.1	149.4	148.6	150.2
Psychiatrist, office visits	Dec. 63	151.3	148.7	148.5	147.7	146.5	145.9	145.4	144.2	144.2	142.8	140.9	140.3	140.2	141.4
	Dec. 63	135.0	134.7	134.6	133.7	133.0	132.6	132.6	131.7	131.7	130.9	129.3	129.6	129.2	129.1

See footnotes at end of table.

24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970						1969						Annual average 1969	
		May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June		May
<b>HEALTH AND RECREATION—Continued</b>															
<b>Medical care—Continued</b>															
<b>Professional services—Continued</b>															
<b>Physicians' fees—Continued</b>															
Herniorrhaphy, adult	Dec. 63	129.6	128.7	127.5	126.7	126.3	125.4	125.2	124.6	124.6	124.3	124.3	124.1	123.9	123.9
Tonsillectomy and adenoidectomy		156.1	154.2	153.8	152.6	152.3	151.6	151.3	149.3	149.1	149.0	148.1	147.8	147.3	148.2
<b>Dentists' fees</b>															
Fillings, adult, amalgam, one surface		151.2	150.7	148.7	148.4	148.0	147.6	147.2	146.9	146.0	145.5	144.9	144.2	143.6	143.9
Extractions, adult		153.3	152.5	150.6	150.3	149.8	148.7	148.3	148.3	147.1	146.4	145.7	145.1	144.6	144.9
Dentures, full upper	Dec. 63	148.9	148.9	146.1	145.9	146.0	147.0	146.7	145.9	145.3	144.7	144.5	143.4	142.6	143.1
X-ray, diagnostic series, upper G.I.	Dec. 63	133.2	132.7	131.7	131.3	130.6	130.2	129.7	129.5	128.9	128.8	128.3	127.7	127.3	127.4
<b>Other professional services:</b>															
Examination, prescription, and dispensing of eyeglasses		136.9	136.7	136.3	135.7	134.6	133.9	133.8	132.8	132.4	132.2	131.7	131.2	130.8	131.1
Routine laboratory tests	Dec. 63	121.3	121.2	120.8	119.8	119.6	119.5	119.4	118.5	118.5	118.6	118.0	117.9	117.6	117.4
<b>Hospital service charges:</b>															
Daily service charges		283.1	282.3	279.0	275.6	271.6	267.9	265.4	263.8	261.9	259.9	256.7	253.8	252.4	256.0
Semiprivate rooms		279.8	279.1	275.6	271.9	268.0	264.1	261.7	260.1	258.4	255.3	253.0	250.0	248.4	252.1
Private rooms		272.3	271.4	268.7	265.9	261.8	258.7	256.1	254.7	252.6	250.8	247.9	245.5	244.4	247.5
Operating room charges	Dec. 63	180.9	180.3	177.7	175.4	172.8	170.9	170.6	170.9	168.7	167.6	166.4	165.6	164.8	165.2
X-ray, diagnostic series, upper G.I.	Dec. 63	129.4	128.1	127.7	125.4	124.7	124.7	124.5	124.8	124.6	123.2	122.7	122.3	122.1	122.7
<b>Personal care</b>															
Toilet goods		130.3	129.8	129.6	129.0	128.5	128.1	127.8	127.3	127.3	126.8	126.6	126.2	125.8	126.2
Toothpaste, standard dentifrice		113.3	113.0	112.9	112.4	112.0	111.6	111.8	111.6	111.7	111.4	111.2	110.9	110.4	110.7
Toilet soap, hard milled		114.4	114.7	113.9	114.3	114.1	114.6	114.7	114.4	113.8	113.4	112.9	113.6	113.2	113.7
Hand lotions, liquid	Dec. 63	126.2	124.3	125.6	124.3	123.0	123.4	124.8	125.1	126.3	123.3	125.1	123.6	123.9	124.1
Shaving cream, aerosol		111.5	117.3	110.5	110.0	109.2	109.1	109.7	109.7	111.1	111.2	110.9	109.0	107.7	108.6
Face powder, pressed		102.1	102.3	102.2	102.1	102.1	101.9	101.6	102.0	102.1	102.1	101.4	102.3	102.3	102.0
Deodorants, cream or roll-on	Dec. 63	131.6	131.0	130.8	129.1	128.1	127.6	127.5	127.2	126.8	126.6	126.1	125.0	124.0	125.0
Cleansing tissues		95.8	95.9	96.1	96.1	96.0	94.5	95.0	95.1	95.3	95.5	95.0	94.9	95.4	94.9
Home permanent refills		116.4	116.0	115.5	114.4	113.8	112.5	111.8	109.2	108.4	109.3	109.3	108.7	107.9	108.8
Personal care services		98.4	98.3	98.6	98.6	98.6	98.7	98.6	98.5	99.2	99.1	98.8	99.3	98.4	98.0
Men's haircuts	Dec. 63	151.3	150.5	150.1	149.5	148.9	148.5	147.5	146.5	146.5	145.8	145.5	144.9	144.7	145.2
Beauty shop services		161.0	159.7	159.1	158.7	158.0	157.8	156.4	155.2	154.8	154.5	154.7	153.8	153.1	153.7
Women's haircuts		141.2	140.9	140.6	140.0	139.2	138.8	138.0	137.7	137.5	136.6	136.0	135.6	135.7	136.1
Shampoo and wave sets, plain		126.4	126.3	126.1	125.4	125.3	125.2	124.9	123.4	123.2	121.9	121.2	120.9	121.7	122.0
Permanent waves, cold		159.0	158.6	158.3	157.5	156.8	156.3	155.3	154.9	154.6	153.6	152.8	152.3	152.1	152.7
Reading and recreation		109.6	109.4	109.0	108.9	107.5	107.2	107.2	107.1	107.0	106.9	106.7	106.5	106.5	106.4
<b>Recreational goods</b>															
TV sets, portable and console	Dec. 63	135.2	134.4	133.6	133.2	133.1	132.7	132.3	132.0	131.6	131.2	130.4	130.2	130.2	130.5
TV replacement tubes		99.9	99.6	99.4	99.2	99.1	99.1	99.2	99.1	99.0	98.8	98.7	98.6	98.6	98.6
Radios, portable and table model	Dec. 63	80.1	80.0	79.9	79.9	80.0	80.2	80.3	80.2	80.0	79.7	79.8	80.0	80.1	80.6
Tape recorders, portable		118.3	117.5	117.3	117.3	116.6	116.3	116.3	115.9	115.7	115.4	115.6	115.8	115.6	115.5
Phonograph records, stereophonic	Dec. 63	76.6	76.5	76.0	76.1	76.4	76.5	76.5	76.6	76.9	76.5	76.5	76.6	76.6	76.5
Movie cameras, Super 8, zoom lens	Dec. 63	90.4	90.3	90.2	90.2	90.0	90.1	91.2	91.4	91.5	91.4	91.5	91.9	91.7	91.3
Film, 35mm, color	Dec. 63	98.3	97.8	98.1	97.9	98.0	98.0	98.0	98.1	97.6	97.7	97.9	97.5	97.5	97.2
Bicycle, boys'	Dec. 63	82.0	81.4	81.3	81.6	82.1	82.3	83.4	83.1	83.5	83.4	83.5	84.1	85.0	84.0
Tricycles	Dec. 63	100.0	99.7	99.7	99.7	99.1	99.1	99.1	99.4	99.6	99.2	99.1	99.0	99.0	99.0
Recreational services	Dec. 63	110.5	110.8	111.4	111.2	110.7	110.4	110.0	109.7	109.9	109.5	109.7	109.1	109.0	109.0
Indoor movie admissions, adult		113.1	111.6	111.2	112.0	112.0	111.6	111.4	111.9	111.6	111.2	109.4	109.2	108.5	109.6
Children's		135.9	135.0	134.1	133.7	133.9	133.2	132.6	132.1	131.7	131.1	130.1	129.7	129.2	129.9
Drive-in movie admissions, adult	Dec. 63	217.9	215.4	212.0	210.5	211.7	210.3	208.3	207.2	206.5	204.2	200.2	198.3	197.4	200.6
Bowling fees, evening	Dec. 63	212.8	210.9	207.7	206.1	207.3	205.4	203.2	201.9	201.6	198.8	194.4	192.9	192.0	195.5
Golf greens fees	Dec. 63	234.8	230.6	226.7	225.4	226.9	227.1	225.4	224.5	223.2	222.1	219.6	216.7	215.6	217.6
TV repairs, picture tube replacement	Dec. 63	168.9	168.1	167.5	167.0	165.6	165.5	165.0	164.5	164.1	163.5	161.9	160.1	157.0	159.9
Film developing, black and white	Dec. 63	115.2	115.2	114.8	115.0	115.3	113.7	113.6	112.1	110.9	110.3	110.4	110.6	110.6	111.1
Reading and education:	Dec. 63	141.5	139.3	(*)	(*)	(*)	(*)	(*)	(*)	135.5	135.9	135.8	134.7	133.8	131.8
Newspapers, street sale and delivery		98.6	98.7	98.9	99.5	100.2	100.2	100.0	101.4	101.0	101.0	101.0	102.2	102.3	101.7
Piano lessons, beginner	Dec. 63	117.7	117.6	117.3	117.7	117.4	117.7	117.9	117.9	118.3	118.4	118.9	119.2	120.0	119.1
<b>Other goods and services</b>															
Tobacco products	Dec. 63	161.5	160.4	160.4	159.8	160.2	158.2	156.7	156.4	155.9	155.8	155.2	154.3	153.7	154.7
Cigarettes, nonfilter tip, regular size		128.2	128.2	127.8	127.7	127.6	127.3	126.7	126.5	126.1	123.8	122.8	122.3	122.2	123.7
Cigarettes, filter tip, king size		136.1	135.6	134.8	134.3	133.9	133.5	133.1	132.2	131.3	130.1	129.1	127.9	126.9	129.0
Cigars, domestic, regular size	Mar. 59	156.7	156.4	155.0	154.9	154.1	153.8	153.1	151.5	150.6	148.7	146.7	144.0	142.3	146.5
Alcoholic beverages		164.4	164.1	162.8	162.7	161.8	161.4	160.7	158.9	158.0	155.8	153.7	150.8	149.3	153.6
Beer		157.2	156.8	154.9	154.8	154.0	153.5	152.6	151.0	150.0	148.1	146.2	143.4	141.0	145.7
Whiskey, spirit blended and straight bourbon		108.6	108.6	108.7	108.7	109.0	110.0	109.9	109.4	109.6	108.7	107.1	106.5	106.1	107.6
Wine, dessert and table	Dec. 63	123.1	122.5	122.0	121.4	121.0	120.6	120.4	120.0	119.1	118.2	117.7	117.4	116.8	117.8
Beer, away from home	Dec. 63	118.5	118.2	117.7	116.9	116.5	116.5	116.6	116.3	116.4	115.3	114.8	114.5	114.2	114.8
Financial and miscellaneous personal expenses:		112.5	111.8	111.6	111.3	111.2	111.5	111.4	111.3	110.4	110.1	109.8	109.4	109.2	109.9
Funeral services, adult	Dec. 63	119.4	118.9	117.4	116.8	116.5	115.2	114.5	113.6	112.0	110.6	110.2	109.5	108.8	110.5
Bank service charges, checking accounts	Dec. 63	129.3	128.4	128.0	127.6	127.1	125.9	125.6	125.0	123.0	122.3	121.8	121.5	120.5	121.8
Legal services, short form will	Dec. 63	119.3	119.0	118.6	118.1	117.7	117.4	117.3	116.9	116.5	115.9	115.5	114.6	114.6	115.2
	Dec. 63	110.0	110.0	110.1	110.0	110.2	110.3	109.9	109.1	108.3	103.4	108.2	108.2	107.9	108.3
	Dec. 63	146.1	145.6	145.1	142.7	142.3	141.2	139.5	139.5	138.8	137.8	135.0	134.5	132.9	134.7

1 Priced only in season.

2 Not available.

3 This item is a replacement for bedroom suites, good or inexpensive quality, which was discontinued after March 1970.

4 This item is a replacement for dining room suites, which was discontinued after March 1970.

5 Item discontinued.

NOTE: Monthly data for individual nonfood items not available for 1968.



25. Consumer Price Index<sup>1</sup>—U.S. city average, and selected areas

[1957=59=100 unless otherwise specified]

Area <sup>2</sup>	1970					1969									Annual avg.
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1969	
	<b>All items</b>														
U.S. city average <sup>3</sup>	134.6	134.0	133.2	132.5	131.8	131.3	130.5	129.8	129.3	128.7	128.2	127.6	126.8	127.7	
Atlanta, Ga.	( <sup>4</sup> )	( <sup>4</sup> )	131.9	( <sup>4</sup> )	( <sup>4</sup> )	129.9	( <sup>4</sup> )	( <sup>4</sup> )	128.6	( <sup>4</sup> )	( <sup>4</sup> )	126.1	( <sup>4</sup> )	126.7	
Baltimore, Md.	( <sup>4</sup> )	( <sup>4</sup> )	133.5	( <sup>4</sup> )	( <sup>4</sup> )	131.9	( <sup>4</sup> )	( <sup>4</sup> )	130.4	( <sup>4</sup> )	( <sup>4</sup> )	127.9	( <sup>4</sup> )	128.3	
Boston, Mass.	( <sup>4</sup> )	137.9	( <sup>4</sup> )	( <sup>4</sup> )	136.1	( <sup>4</sup> )	( <sup>4</sup> )	134.7	( <sup>4</sup> )	( <sup>4</sup> )	132.1	( <sup>4</sup> )	( <sup>4</sup> )	131.8	
Buffalo, N.Y. (Nov. 1963=100)	127.0	( <sup>4</sup> )	( <sup>4</sup> )	125.3	( <sup>4</sup> )	( <sup>4</sup> )	123.2	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	121.2	( <sup>4</sup> )	( <sup>4</sup> )	120.5	
Chicago, Ill.—Northwestern Ind.	131.1	130.2	129.9	129.3	129.1	128.3	127.7	126.9	127.2	126.1	125.3	124.6	123.6	124.9	
Cincinnati, Ohio—Kentucky	( <sup>4</sup> )	( <sup>4</sup> )	129.2	( <sup>4</sup> )	( <sup>4</sup> )	127.7	( <sup>4</sup> )	( <sup>4</sup> )	125.5	( <sup>4</sup> )	( <sup>4</sup> )	124.6	( <sup>4</sup> )	124.6	
Cleveland, Ohio	134.3	( <sup>4</sup> )	( <sup>4</sup> )	132.3	( <sup>4</sup> )	( <sup>4</sup> )	129.5	( <sup>4</sup> )	( <sup>4</sup> )	127.3	( <sup>4</sup> )	( <sup>4</sup> )	125.3	126.3	
Dallas, Tex. (Nov. 1963=100)	127.1	( <sup>4</sup> )	( <sup>4</sup> )	125.6	( <sup>4</sup> )	( <sup>4</sup> )	123.7	( <sup>4</sup> )	( <sup>4</sup> )	121.2	( <sup>4</sup> )	( <sup>4</sup> )	119.4	120.3	
Detroit, Mich.	134.9	133.8	133.1	132.2	131.1	130.8	129.8	129.2	128.6	128.5	127.6	127.3	126.4	127.1	
Honolulu, Hawaii (Dec. 1963=100)	( <sup>4</sup> )	( <sup>4</sup> )	122.0	( <sup>4</sup> )	( <sup>4</sup> )	119.7	( <sup>4</sup> )	( <sup>4</sup> )	118.1	( <sup>4</sup> )	( <sup>4</sup> )	118.6	( <sup>4</sup> )	117.0	
Houston, Tex.	( <sup>4</sup> )	132.9	( <sup>4</sup> )	( <sup>4</sup> )	130.9	( <sup>4</sup> )	( <sup>4</sup> )	129.8	( <sup>4</sup> )	( <sup>4</sup> )	127.0	( <sup>4</sup> )	( <sup>4</sup> )	127.0	
Kansas City, Mo.—Kansas	( <sup>4</sup> )	( <sup>4</sup> )	134.6	( <sup>4</sup> )	( <sup>4</sup> )	133.2	( <sup>4</sup> )	( <sup>4</sup> )	131.4	( <sup>4</sup> )	( <sup>4</sup> )	130.4	( <sup>4</sup> )	130.1	
Los Angeles—Long Beach, Calif.	133.8	133.5	132.2	131.6	131.2	131.1	130.0	130.1	129.6	128.9	128.6	127.9	126.9	128.0	
Milwaukee, Wis.	130.0	( <sup>4</sup> )	( <sup>4</sup> )	128.5	( <sup>4</sup> )	( <sup>4</sup> )	127.0	( <sup>4</sup> )	( <sup>4</sup> )	123.9	( <sup>4</sup> )	( <sup>4</sup> )	122.8	123.6	
Minneapolis—St. Paul, Minn.	( <sup>4</sup> )	135.1	( <sup>4</sup> )	( <sup>4</sup> )	132.8	( <sup>4</sup> )	( <sup>4</sup> )	130.3	( <sup>4</sup> )	( <sup>4</sup> )	128.0	( <sup>4</sup> )	( <sup>4</sup> )	127.4	
New York, N.Y.—Northeastern N.J.	140.7	140.1	139.1	138.1	137.0	136.0	134.6	134.1	133.5	132.5	132.1	131.6	130.8	131.8	
Philadelphia, Pa.—N.J.	136.5	135.7	135.4	134.1	132.9	132.2	131.7	131.2	130.0	130.2	129.2	128.2	127.5	128.9	
Pittsburgh, Pa.	( <sup>4</sup> )	132.4	( <sup>4</sup> )	( <sup>4</sup> )	129.4	( <sup>4</sup> )	( <sup>4</sup> )	128.5	( <sup>4</sup> )	( <sup>4</sup> )	127.7	( <sup>4</sup> )	( <sup>4</sup> )	127.0	
Portland, Oreg.—Wash. <sup>5</sup>	( <sup>4</sup> )	133.4	( <sup>4</sup> )	( <sup>4</sup> )	130.7	( <sup>4</sup> )	( <sup>4</sup> )	130.1	( <sup>4</sup> )	( <sup>4</sup> )	128.4	( <sup>4</sup> )	( <sup>4</sup> )	128.4	
St. Louis, Mo.—Ill.	( <sup>4</sup> )	( <sup>4</sup> )	132.4	( <sup>4</sup> )	( <sup>4</sup> )	130.7	( <sup>4</sup> )	( <sup>4</sup> )	129.2	( <sup>4</sup> )	( <sup>4</sup> )	127.0	( <sup>4</sup> )	127.5	
San Diego, Calif. (Feb. 1965=100)	120.9	( <sup>4</sup> )	( <sup>4</sup> )	118.6	( <sup>4</sup> )	( <sup>4</sup> )	117.0	( <sup>4</sup> )	( <sup>4</sup> )	116.0	( <sup>4</sup> )	( <sup>4</sup> )	114.4	115.1	
San Francisco—Oakland, Calif.	( <sup>4</sup> )	( <sup>4</sup> )	136.1	( <sup>4</sup> )	( <sup>4</sup> )	134.5	( <sup>4</sup> )	( <sup>4</sup> )	132.8	( <sup>4</sup> )	( <sup>4</sup> )	130.8	( <sup>4</sup> )	131.1	
Scranton, Pa. <sup>6</sup>	136.9	( <sup>4</sup> )	( <sup>4</sup> )	134.4	( <sup>4</sup> )	( <sup>4</sup> )	127.3	( <sup>4</sup> )	( <sup>4</sup> )	130.5	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	129.2	
Seattle, Wash.	133.9	( <sup>4</sup> )	( <sup>4</sup> )	132.2	( <sup>4</sup> )	( <sup>4</sup> )	130.0	( <sup>4</sup> )	( <sup>4</sup> )	129.5	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	128.3	
Washington, D.C.—Md.—Va.	136.7	( <sup>4</sup> )	( <sup>4</sup> )	134.6	( <sup>4</sup> )	( <sup>4</sup> )	132.0	( <sup>4</sup> )	( <sup>4</sup> )	130.8	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	129.5	
	<b>Food</b>														
U.S. city average <sup>3</sup>	132.4	132.0	131.6	131.5	130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5	123.7	125.5	
Atlanta, Ga.	130.0	130.6	130.5	130.7	129.0	128.4	126.9	126.5	126.7	126.3	124.4	122.8	121.2	123.8	
Baltimore, Md.	136.5	135.9	136.2	135.4	134.9	134.1	132.3	131.5	131.8	130.8	130.1	127.9	126.2	128.8	
Boston, Mass.	136.6	135.9	135.4	135.0	134.3	133.1	131.6	131.2	131.4	131.8	130.2	129.5	127.8	129.3	
Buffalo, N.Y. (Nov. 1963=100)	128.1	128.4	127.3	127.0	125.4	125.1	122.8	121.9	121.8	122.5	122.4	121.2	118.9	120.6	
Chicago, Ill.—Northwestern Ind.	133.1	132.6	133.0	133.2	132.8	131.3	129.4	128.3	130.2	130.5	129.0	127.5	125.3	127.2	
Cincinnati, Ohio—Kentucky	129.1	128.6	127.9	127.8	127.2	126.6	125.1	124.1	123.6	123.2	123.3	121.9	120.7	122.1	
Cleveland, Ohio	130.8	129.7	129.3	128.4	129.0	128.5	125.7	125.0	125.1	125.2	123.3	123.2	122.3	123.2	
Dallas, Tex. (Nov. 1963=100)	126.0	125.5	125.5	125.9	125.0	124.2	122.8	121.7	122.0	121.9	120.6	120.1	118.2	119.8	
Detroit, Mich.	132.1	131.2	130.9	130.2	129.8	129.3	126.8	126.1	126.5	127.3	126.5	124.5	122.7	124.3	
Honolulu, Hawaii (Dec. 1963=100)	123.2	123.4	123.4	122.9	123.0	120.8	119.5	119.7	119.1	118.0	116.9	116.3	116.1	117.4	
Houston, Tex.	133.4	133.8	132.7	133.3	132.3	131.2	129.2	128.7	129.2	129.0	127.7	126.8	125.2	126.9	
Kansas City, Mo.—Kansas	136.8	136.4	135.9	135.8	135.1	134.4	132.9	131.2	131.9	131.3	130.7	129.8	127.5	129.4	
Los Angeles—Long Beach, Calif.	128.1	127.4	126.7	127.2	126.2	125.8	124.7	124.0	124.0	123.9	124.0	123.0	121.6	122.6	
Milwaukee, Wis.	129.4	129.3	130.2	130.1	129.5	128.4	127.8	127.6	127.9	127.6	126.5	125.1	123.3	125.2	
Minneapolis—St. Paul, Minn.	131.3	131.2	131.2	130.6	129.5	128.2	127.2	126.5	125.9	126.4	125.4	122.8	121.3	123.7	
New York, N.Y.—Northeastern N.J.	136.0	135.7	135.1	134.7	133.8	132.9	130.6	129.6	129.1	128.7	128.1	126.6	124.9	127.1	
Philadelphia, Pa.—N.J.	132.3	131.5	132.0	132.0	130.7	129.7	128.0	127.0	127.2	127.2	126.0	124.5	123.1	125.5	
Pittsburgh, Pa.	128.8	128.3	128.2	128.0	127.5	127.1	125.7	123.3	123.2	123.9	124.2	123.2	120.9	122.4	
Portland, Oreg.—Wash. <sup>5</sup>		128.5			126.7			124.4				125.2		124.0	
St. Louis, Mo.—Ill.	136.3	136.5	136.6	137.4	136.6	135.5	133.5	132.4	132.6	131.2	129.8	128.6	126.9	129.5	
San Diego, Calif. (Feb. 1965=100)	122.3	121.3	120.8	121.3	120.6	120.0	119.1	117.8	118.3	118.6	118.7	118.1	116.4	117.0	
San Francisco—Oakland, Calif.	129.0	128.8	128.2	128.7	128.2	127.2	126.2	125.6	124.9	124.9	125.9	124.3	122.7	123.8	
Scranton, Pa.	131.3			131.3			131.9				127.5		123.4	125.0	
Seattle, Wash.	130.6	130.1	128.5	129.2	127.8	127.6	126.2	125.2	125.9	126.2	125.8	125.0	123.6	124.5	
Washington, D.C.—Md.—Va.	136.2	136.6	135.7	136.2	134.8	133.5	131.2	130.5	131.6	132.5	131.3	129.1	128.3	129.5	

<sup>1</sup> See table 23. Indexes measure time-to-time changes in prices. They do not indicate whether it costs more to live in one area than in another.

<sup>2</sup> The areas listed include not only the central city but the entire urban portion of the Standard Metropolitan Statistical Area, as defined for the 1960 Census of Population; except that the Standard Consolidated Area is used for New York and Chicago.

<sup>3</sup> Average of 56 "cities" (metropolitan areas and nonmetropolitan urban places beginning January 1966).

<sup>4</sup> All items indexes are computed monthly for 5 areas and once every 3 months on a rotating cycle for other areas.

<sup>5</sup> Old series.

26. Wholesale price indexes,<sup>1</sup> by group and subgroup of commodities[1957-59=100 unless otherwise specified]<sup>2</sup>

Code	Commodity Group	1970					1969					Annual average 1969			
		May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.		July	June	May
	ALL COMMODITIES.....	116.8	116.6	116.6	116.4	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.2	112.8	113.0
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS.....	117.0	117.6	118.8	118.7	118.2	116.4	115.7	114.3	114.3	114.6	115.5	115.5	114.1	113.5
	INDUSTRIAL COMMODITIES.....	116.6	116.2	115.8	115.5	115.1	114.6	114.2	113.8	113.2	112.8	112.4	112.2	112.2	112.7
	FARM PRODUCTS, AND PROCESSED FOODS AND FEEDS														
01	Farm products.....	111.0	111.3	114.3	113.7	112.5	111.7	111.1	107.9	108.4	108.9	110.5	111.2	110.5	108.5
01-1	Fresh and dried fruits and vegetables.....	123.5	112.7	118.2	117.2	116.6	112.4	125.3	101.3	103.4	106.7	103.1	112.9	126.7	111.0
01-2	Grains.....	88.4	87.8	85.5	85.9	85.9	82.9	81.7	84.8	83.4	81.9	83.7	85.6	86.7	83.3
01-3	Livestock.....	122.2	124.8	129.6	124.9	117.3	120.2	116.6	118.7	119.2	123.6	126.8	130.4	123.0	118.3
01-4	Live poultry.....	83.7	82.8	90.8	87.1	94.8	86.9	86.3	85.3	89.0	92.3	90.2	89.8	90.7	89.8
01-5	Plant and animal fibers.....	65.6	65.4	64.9	65.4	65.3	65.7	66.0	66.1	66.4	66.9	67.7	67.7	67.7	67.1
01-6	Fluid milk.....	139.5	141.1	139.7	140.8	140.5	138.3	137.6	136.8	135.6	135.1	134.9	134.6	134.1	134.8
01-7	Eggs.....	79.7	94.9	120.1	136.9	152.2	155.8	139.8	113.8	122.5	100.5	117.0	85.9	80.6	112.9
01-8	Hay, haysceds, and oilseeds.....	111.1	109.8	106.3	106.3	107.7	105.1	103.4	101.2	105.7	107.3	111.3	110.6	115.1	109.2
01-9	Other farm products.....	115.0	114.7	114.8	115.2	116.3	113.1	115.9	116.7	110.6	109.5	106.9	106.2	105.6	109.1
02	Processed foods and feeds.....	124.1	124.9	124.9	125.2	125.1	122.6	121.8	121.6	121.3	121.5	122.0	121.4	119.4	119.8
02-1	Cereal and bakery products.....	124.6	124.6	123.7	123.3	122.3	122.0	121.9	121.2	120.4	120.1	119.9	119.7	119.4	120.2
02-2	Meats, poultry, and fish.....	122.5	124.9	127.1	124.9	125.8	121.9	120.5	120.2	122.9	124.5	127.5	126.5	121.0	119.5
02-3	Dairy products.....	135.4	135.1	133.1	134.1	133.9	133.9	131.2	130.7	133.4	133.0	133.0	133.0	132.5	131.9
02-4	Processed fruits and vegetables.....	118.1	117.5	116.5	117.3	116.9	116.4	116.3	116.0	116.6	116.8	116.6	115.6	115.7	115.7
02-5	Sugar and confectionery.....	129.4	128.7	127.4	127.7	129.1	127.1	127.9	127.7	127.2	127.2	122.3	123.0	122.7	123.6
02-6	Beverages and beverage materials.....	120.3	118.8	118.4	118.3	117.4	116.1	116.0	115.0	113.1	112.6	112.6	112.4	111.8	112.9
02-7	Animal fats and oils.....	116.8	118.8	133.7	115.7	111.0	115.6	123.0	118.3	104.0	105.0	96.4	91.2	89.0	100.3
02-72	Crude vegetable oils.....	106.6	114.7	110.7	99.5	86.4	86.1	97.0	88.4	79.8	80.0	80.0	81.9	81.0	83.5
02-73	Refined vegetable oils.....	106.4	107.7	111.9	99.8	97.8	97.9	91.1	88.9	85.0	84.7	89.4	89.4	89.4	90.3
02-74	Vegetable oil end products.....	113.1	113.6	112.4	107.5	107.5	108.0	106.5	104.7	102.1	102.1	102.1	103.3	103.3	103.5
02-8	Miscellaneous processed foods.....	124.1	125.8	127.1	127.4	126.5	126.4	127.2	131.6	127.2	119.8	119.5	118.6	118.6	121.5
02-9	Manufactured animal feeds.....	119.4	121.4	119.0	131.3	131.7	121.8	119.5	119.9	119.3	118.2	118.7	116.9	114.9	118.2
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel.....	109.3	109.3	109.5	109.4	109.5	109.2	109.2	109.1	109.0	108.7	107.7	107.2	106.9	108.0
03-1	Cotton products.....	105.8	105.8	105.8	106.1	106.1	106.1	106.0	105.8	105.9	105.7	105.3	104.5	104.6	105.2
03-2	Wool products.....	103.8	104.0	104.4	104.3	104.3	104.3	104.6	104.5	105.0	104.8	105.0	105.0	104.3	104.6
03-3	Manmade fiber textile products.....	89.5	89.9	90.4	91.0	91.5	91.1	91.5	91.6	92.1	92.7	92.6	92.7	92.6	92.2
03-4	Silk yarns.....	204.8	201.3	194.2	196.3	193.5	191.1	184.6	183.9	181.2	177.1	168.2	164.6	157.9	169.7
03-5	Apparel.....	118.0	117.9	117.9	117.5	117.2	116.9	116.7	116.5	116.2	115.8	113.9	113.3	112.9	114.5
03-6	Textile household furnishings.....	108.7	108.6	108.6	109.0	109.1	108.1	108.0	108.0	107.3	104.7	104.2	104.2	103.2	106.7
03-7	Miscellaneous textile products.....	125.6	121.4	126.5	124.3	129.0	127.8	129.6	127.2	121.4	119.6	120.3	118.0	114.7	122.8
04	Hides, skins, leather, and related products.....	127.9	128.5	126.8	126.7	126.6	126.5	126.8	127.4	128.2	126.4	126.4	125.7	126.1	125.8
04-1	Hides and skins.....	101.8	106.6	99.4	101.1	102.8	108.9	110.4	118.0	128.7	123.1	123.0	117.4	122.6	116.9
04-2	Leather.....	120.4	120.4	118.2	117.3	119.6	119.7	119.6	120.3	121.7	121.0	121.2	121.5	121.7	119.9
04-3	Footwear.....	137.8	138.4	136.9	136.9	135.9	135.0	135.5	135.2	134.9	132.7	132.7	132.3	132.1	133.2
04-4	Other leather and related products.....	120.4	120.0	119.9	119.8	119.2	118.5	118.6	118.4	117.9	117.6	117.5	117.2	117.0	116.9
05	Fuels and related products and power.....	109.1	107.5	106.3	106.4	105.6	106.1	105.5	105.4	104.7	104.7	105.0	105.0	104.5	104.6
05-1	Coal.....	146.9	145.9	133.4	131.7	125.4	124.6	123.5	120.6	115.9	115.5	115.4	114.2	113.5	116.2
05-2	Coke.....	139.6	139.6	126.9	126.9	126.9	126.9	126.9	126.9	120.3	120.3	120.3	120.3	120.3	122.0
05-3	Gas fuels (Jan. 1958=100).....	136.1	136.2	135.0	135.2	132.4	131.8	128.8	128.7	123.0	121.8	121.6	121.8	121.6	124.5
05-4	Electric power (Jan. 1958=100).....	104.2	103.7	103.6	103.6	103.4	103.4	103.4	103.4	103.5	102.4	102.5	102.6	102.5	102.7
05-5	Crude petroleum.....	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	103.7
05-6	Petroleum products, refined.....	104.2	101.3	100.8	101.2	101.0	102.2	101.6	101.8	102.5	103.2	103.2	103.3	104.7	101.8
06	Chemicals and allied products.....	100.6	100.4	100.0	99.5	99.1	98.8	98.9	98.6	98.9	98.7	98.2	98.3	98.1	98.3
06-1	Industrial chemicals.....	98.2	97.9	97.3	97.7	97.9	97.8	97.8	97.6	98.2	98.2	97.7	97.0	96.9	97.7
06-2	Prepared paint.....	122.8	122.8	122.8	122.0	121.7	120.3	120.3	119.2	119.2	119.2	119.2	119.2	118.7	119.2
06-3	Paint materials.....	93.2	92.6	92.6	92.8	93.4	93.4	93.1	93.9	93.3	93.2	93.2	92.8	92.8	92.8
06-4	Drugs and pharmaceuticals.....	94.7	94.7	95.0	94.6	94.5	94.6	94.2	94.0	94.0	93.8	93.8	93.8	93.8	93.8
06-5	Fats and oils, inedible.....	106.8	107.6	102.2	94.3	95.0	92.8	100.5	98.9	102.1	99.3	90.5	86.8	83.3	88.7
06-6	Agricultural chemicals and chem. products.....	91.7	92.4	92.0	91.4	87.6	86.7	86.3	87.4	88.4	88.6	92.1	92.1	92.1	89.8
06-7	Plastic resins and materials.....	80.6	81.1	81.2	80.3	80.0	80.1	79.6	80.2	81.0	80.7	80.2	80.8	80.8	80.7
06-8	Other chemicals and allied products.....	117.7	116.8	116.5	115.7	115.5	115.1	114.9	114.3	113.9	112.9	112.8	112.8	112.7	112.9
07	Rubber and plastic products.....	104.2	104.2	104.4	104.6	104.7	104.5	104.4	103.5	102.7	103.0	102.5	101.2	101.1	102.1
07-1	Crude rubber.....	87.1	87.5	87.6	89.4	89.3	88.1	88.7	89.7	90.6	92.5	90.7	89.7	89.5	89.4
07-12	Tires and tubes.....	101.7	101.7	101.7	101.7	101.7	101.7	101.7	100.6	99.2	99.2	98.4	96.3	96.3	98.2
07-13	Miscellaneous rubber products.....	115.7	114.3	114.3	114.3	114.0	113.4	113.0	111.7	110.7	110.8	111.0	110.2	110.2	110.8
07-21	Plastic construction products (Dec. 1969=100).....	97.6	98.7	99.1	99.1	99.8	100.0								
08	Lumber and wood products.....	121.0	120.1	119.5	120.2	121.6	122.5	123.9	122.6	123.2	124.0	125.3	129.8	138.0	132.0
08-1	Lumber.....	124.3	123.5	123.3	124.1	126.9	128.2	129.3	128.0	129.5	131.1	133.4	142.3	155.9	142.6
08-2	Millwork.....	131.1	130.8	130.7	130.7	131.5	131.7	133.2	133.9	134.4	135.1	135.6	136.0	134.3	132.2
08-3	Plywood.....	99.5	97.2	94.5	96.3	95.5	96.9	99.6	95.8	94.4	93.6	93.9	94.2	103.5	109.3
08-4	Other wood products (Dec. 1966=100).....	119.3	119.3	119.5	119.5	119.5	118.4	116.7	116.7	116.5	116.8	115.6	115.1	114.7	114.8

See footnotes at end of table.

26. Wholesale price indexes,<sup>1</sup> by group and subgroup of commodities—Continued

[1957=100 unless otherwise specified]<sup>2</sup>

Code	Commodity Group	1970					1969								Annual average 1969
		May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	
<b>INDUSTRIAL COMMODITIES—Continued</b>															
09	Pulp, paper, and allied products.....	112.3	112.5	112.1	111.8	111.1	109.5	109.3	109.0	108.8	108.7	108.4	108.3	108.1	108.2
09-1	Pulp, paper, and products, excluding building paper and board.....	113.0	113.2	112.9	112.5	111.8	110.1	109.9	109.6	109.3	109.2	108.9	108.6	108.3	108.6
09-11	Woodpulp.....	105.0	105.0	104.7	104.7	103.7	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
09-12	Wastepaper.....	104.2	108.5	108.5	108.2	107.5	106.7	107.0	107.2	108.4	110.3	111.2	108.8	107.1	108.3
09-13	Paper.....	121.6	121.6	121.6	121.5	120.3	117.4	117.0	116.5	116.5	117.2	117.1	117.0	116.7	116.6
09-14	Paperboard.....	96.7	97.0	97.0	97.1	96.0	96.0	96.0	95.9	95.9	95.8	93.7	93.5	93.5	94.4
09-15	Converted paper and paperboard products.....	113.4	113.5	112.9	112.2	111.9	110.7	110.6	110.3	109.8	109.2	109.0	108.7	108.4	108.8
09-2	Building paper and board.....	93.3	93.4	92.9	93.0	93.4	93.9	94.4	94.6	95.1	95.2	95.9	99.4	100.7	97.1
10	Metals and metal products.....	128.7	127.8	127.0	126.1	124.9	123.8	122.9	122.4	121.7	120.4	118.7	117.9	117.5	118.9
10-1	Iron and steel.....	118.9	117.3	117.7	117.0	114.6	113.9	113.7	113.7	113.2	112.7	111.1	110.3	109.9	111.0
10-13	Steel mill products.....	120.5	118.7	118.4	117.7	115.5	116.4	116.4	116.4	115.5	115.4	113.6	112.8	112.7	113.7
10-2	Nonferrous metals.....	157.2	157.1	153.4	152.8	152.8	150.1	146.4	144.8	143.5	139.5	136.1	135.5	134.2	137.4
10-3	Metal containers.....	125.0	125.0	125.0	125.0	120.6	120.6	120.6	120.6	120.3	119.7	119.7	119.7	119.7	119.7
10-4	Hardware.....	125.4	125.2	124.9	124.7	124.2	123.0	122.7	122.2	121.0	120.6	120.5	119.9	119.9	120.5
10-5	Plumbing fixtures and brass fittings.....	124.0	123.2	122.8	122.8	122.8	122.8	122.2	120.8	120.2	119.4	119.4	117.9	117.1	118.7
10-6	Heating equipment.....	101.7	101.3	100.5	99.9	99.7	99.7	99.3	98.7	98.0	97.7	97.7	97.2	97.0	97.6
10-7	Fabricated structural metal products.....	117.3	116.4	116.0	114.6	114.0	113.7	113.6	113.4	112.8	112.6	112.0	111.0	110.8	111.5
10-8	Miscellaneous metal products.....	128.3	127.5	127.1	125.2	124.9	124.5	124.4	124.4	124.2	123.2	121.3	120.7	120.5	122.0
11	Machinery and equipment.....	123.7	123.4	123.1	122.8	122.5	121.9	121.0	120.5	119.9	119.1	119.0	118.6	118.3	119.0
11-1	Agricultural machinery and equipment.....	137.4	137.3	137.1	137.2	136.7	136.4	135.8	133.2	133.0	132.3	132.3	132.0	131.9	132.8
11-2	Construction machinery and equipment.....	140.9	140.8	140.6	140.3	140.2	139.8	138.6	137.7	136.1	134.9	134.8	134.5	134.3	135.5
11-3	Metalworking machinery and equipment.....	141.3	140.3	139.8	139.3	138.6	138.0	136.5	135.4	134.4	133.5	133.3	132.3	132.1	133.4
11-4	General purpose machinery and equipment.....	127.9	127.6	127.1	126.5	126.1	124.8	123.7	123.4	122.6	121.8	121.5	121.2	120.3	121.4
11-6	Special industry machinery and equipment (Jan. 1961=100).....	134.0	133.6	133.6	133.4	133.3	132.8	130.6	130.2	129.6	129.2	129.2	128.1	128.0	128.7
11-7	Electrical machinery and equipment.....	107.5	107.3	107.2	106.9	106.8	106.2	106.0	105.6	105.4	104.7	104.8	104.7	104.5	104.8
11-9	Miscellaneous machinery.....	122.9	122.8	122.3	121.7	121.5	121.0	120.4	120.0	119.2	118.5	118.1	117.8	117.6	118.1
12	Furniture and household durables.....	108.3	108.3	108.1	107.9	107.5	107.2	106.9	106.5	106.4	106.2	106.1	105.9	105.9	106.1
12-1	Household furniture.....	125.9	125.6	125.3	125.1	124.3	123.6	123.6	123.3	123.0	122.8	122.8	122.3	121.9	122.3
12-2	Commercial furniture.....	125.1	125.1	124.9	124.5	124.4	124.1	124.0	122.4	121.7	119.5	119.5	119.3	119.0	120.0
12-3	Floor coverings.....	92.8	93.1	93.4	93.5	93.5	93.1	93.1	93.1	93.2	93.2	93.2	93.8	94.6	94.1
12-4	Household appliances.....	94.9	94.8	94.7	94.4	94.4	93.6	93.6	93.1	93.0	93.0	93.0	92.9	93.0	93.0
12-5	Home electronic equipment.....	77.0	77.0	77.2	77.2	77.2	77.8	77.7	77.9	77.9	77.9	77.9	78.1	78.1	78.2
12-6	Other household durable goods.....	135.3	135.6	134.6	134.8	133.0	133.3	131.1	131.2	131.4	131.4	131.2	130.2	130.0	130.6
13	Nonmetallic mineral products.....	117.9	117.8	117.3	116.9	116.5	114.5	113.9	113.8	113.5	113.0	113.0	112.8	112.6	112.8
13-11	Flat glass.....	121.1	121.5	119.9	119.0	118.4	117.8	116.2	116.2	116.2	116.2	116.2	115.2	114.6	114.6
13-2	Concrete ingredients.....	122.1	121.9	120.8	120.6	120.1	116.7	116.7	116.6	116.5	116.1	116.1	115.9	115.6	115.6
13-3	Concrete products.....	117.4	117.2	117.0	116.4	115.9	114.2	113.6	113.5	113.2	112.4	112.3	111.6	111.6	112.2
13-4	Structural clay products exc. refractories.....	121.2	120.9	119.8	119.4	119.4	118.5	118.5	117.8	117.5	117.0	116.9	116.9	116.8	117.0
13-5	Refractories.....	126.1	125.9	125.4	125.1	123.5	120.9	117.2	117.2	117.2	117.0	113.6	113.6	113.6	115.1
13-6	Asphalt roofing.....	95.1	95.1	97.8	100.8	101.8	101.2	94.0	96.7	96.7	96.7	100.9	100.2	97.9	98.3
13-7	Gypsum products.....	104.0	105.6	107.0	108.3	107.3	104.3	109.8	105.9	106.1	103.2	104.9	108.7	108.7	106.4
13-8	Glass containers.....	120.9	120.9	120.9	120.9	120.9	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1
13-9	Other nonmetallic minerals.....	113.7	113.5	112.4	111.0	111.0	110.6	110.6	110.6	109.6	109.2	109.0	109.0	109.0	109.1
14	Transportation equipment (Dec. 1968=100).....	103.2	103.1	103.2	102.9	102.9	102.7	102.7	102.3	100.0	99.9	100.4	100.3	100.2	100.7
14-1	Motor vehicles and equipment.....	109.4	109.3	109.4	109.1	109.1	109.0	109.0	108.7	106.1	106.0	106.6	106.6	106.5	107.0
14-4	Railroad equipment (Jan. 1961=100).....	119.0	118.8	118.7	117.7	117.4	115.7	115.1	115.1	114.4	114.3	114.3	111.8	111.1	112.4
15	Miscellaneous products.....	118.2	117.8	117.8	117.5	117.4	117.0	117.0	116.7	116.4	115.9	115.5	115.1	112.8	114.7
15-1	Toys, sporting goods, small arms, ammunition.....	115.1	115.0	115.3	114.2	114.1	112.7	112.8	112.3	112.1	111.8	111.2	110.9	110.7	111.3
15-2	Tobacco products.....	124.1	124.1	124.1	124.0	124.0	124.0	124.0	123.8	123.8	123.5	123.4	123.2	117.0	120.8
15-3	Notions.....	109.0	109.0	109.0	109.0	107.2	107.2	107.2	106.7	106.7	106.7	102.0	102.0	102.0	103.6
15-4	Photographic equipment and supplies.....	116.2	116.2	115.9	115.8	115.7	115.3	115.0	114.9	113.9	111.4	111.4	112.6	112.4	113.0
15-9	Other miscellaneous products.....	116.6	115.0	114.8	114.8	115.1	114.9	114.9	114.8	114.3	114.2	114.1	112.6	111.7	113.1

<sup>1</sup> As of January 1967, the indexes incorporated a revised weighting structure reflecting 1963 values of shipments. Changes also were made in the classification structure, and titles and composition of some indexes were changed. Titles and indexes in this table conform with the revised classification structure, and may differ from data previously published. See Wholesale Prices and Price Indexes, January 1967 (final) and February 1967 (final) for a description of the changes.

<sup>2</sup> As of January 1962, the indexes were converted from the former base of 1947-49=100 to the new base of 1957-59=100. Technical details and earlier data on the 1957-59 base furnished upon request to the Bureau.

NOTE: For a description of the general method of computing the monthly Wholesale Price Index, see BLS Handbook of Methods for Surveys and Studies (BLS Bulletin 1458, October 1966), Chapter 11.

27. Wholesale price indexes for special commodity groupings<sup>1</sup>[1957-59=100, unless otherwise specified]<sup>2</sup>

Commodity group	1970					1969								Annual average 1969
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	
All commodities—less farm products.....	117.4	117.2	116.8	116.6	116.3	115.4	115.0	114.7	114.1	113.8	113.6	113.3	112.9	113.4
All foods.....	122.8	123.2	124.9	124.5	125.0	123.3	123.1	119.8	120.1	119.9	120.7	119.9	119.0	119.0
Processed foods.....	124.6	125.4	125.7	124.6	124.5	122.8	122.1	121.8	121.6	121.9	122.5	122.0	119.9	119.9
Textile products, excluding hard and bast fiber products.....	100.2	100.4	100.6	101.0	101.3	101.0	101.1	101.1	101.3	101.3	101.0	100.8	100.6	101.0
Hosiery.....	92.3	92.3	92.4	92.8	92.8	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
Underwear and nightwear.....	116.7	116.7	116.4	116.4	116.2	115.9	115.7	115.7	115.6	115.6	115.6	114.5	114.3	115.0
Refined petroleum products.....	104.2	101.3	100.8	101.2	101.0	102.2	101.6	101.6	101.8	102.5	103.2	103.3	102.4	101.8
East Coast.....	110.2	103.6	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4
Mid-Continent.....	111.7	98.5	99.2	102.2	101.2	103.9	102.5	98.7	98.0	103.9	98.8	103.9	101.0	102.0
Gulf Coast.....	99.6	98.6	99.3	99.3	98.4	100.7	99.8	101.4	101.4	101.4	104.8	103.2	102.4	100.7
Pacific Coast.....	94.8	94.0	92.2	91.2	92.5	92.5	92.5	92.3	94.9	94.9	94.9	93.6	93.6	93.0
Midwest (Jan. 1961=100).....	101.8	99.3	96.8	98.0	98.0	99.1	98.4	97.4	97.0	97.0	97.0	98.7	97.4	97.5
Pharmaceutical preparations.....	96.9	96.8	97.4	97.0	97.0	97.1	96.7	96.5	96.5	96.2	96.3	96.2	96.2	96.3
Lumber and wood products excluding millwork and other wood products <sup>3</sup> .....	118.6	117.3	116.4	117.5	119.3	120.6	122.2	120.1	120.8	121.7	123.5	130.0	142.5	134.6
Special metals and metal products <sup>4</sup> .....	123.1	122.5	122.0	121.4	120.6	119.9	119.2	118.8	117.5	116.6	115.7	115.2	114.9	116.0
Machinery and motive products.....	119.3	119.0	118.9	118.6	118.4	117.9	117.4	116.9	115.5	115.1	115.2	114.9	114.7	115.3
Machinery and equipment, except electrical.....	134.1	133.7	133.3	132.9	132.6	131.9	130.6	129.9	129.0	128.3	128.1	127.5	127.1	128.1
Agricultural machinery, including tractors.....	139.8	139.7	139.6	139.7	139.3	139.1	138.5	135.5	135.3	134.6	134.7	134.3	134.3	135.2
Metalworking machinery.....	148.3	147.1	146.6	146.0	145.2	144.6	143.6	143.4	141.7	140.9	140.9	139.2	138.9	140.5
Total tractors.....	142.8	142.8	142.9	143.0	142.8	142.5	141.3	139.4	138.4	137.1	137.0	137.0	137.0	138.1
Industrial valves.....	131.2	130.1	130.0	129.4	128.5	127.3	125.8	125.8	124.8	124.8	125.8	126.5	123.5	124.2
Industrial fittings.....	124.2	124.2	124.2	124.2	123.2	119.4	118.6	118.0	118.0	115.3	115.3	115.9	115.9	115.9
Abrasive grinding wheels.....	107.1	107.1	107.1	107.1	107.1	107.1	107.0	102.6	102.6	102.6	102.6	102.6	102.6	103.3
Construction materials.....	118.5	118.0	117.5	117.4	117.4	116.9	116.9	116.3	115.9	115.7	115.9	116.9	118.9	117.7

<sup>1</sup>See footnote 1, table 26.<sup>2</sup>See footnote 2, table 26.<sup>3</sup>Formerly titled "Lumber and wood products, excluding millwork."<sup>4</sup>Metals and metal products, agricultural machinery and equipment, and motor vehicles and equipment.

28. Wholesale price indexes,<sup>1</sup> by stage of processing[1957-59=100]<sup>2</sup>

Commodity group	1970					1969								Annual average 1969
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	
<b>ALL COMMODITIES</b> .....	116.8	116.6	116.6	116.4	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.2	112.8	113.0
<b>CRUDE MATERIALS FOR FURTHER PROCESSING</b> .....	112.8	113.4	114.2	113.0	110.7	109.9	109.0	108.7	108.7	109.5	110.2	111.2	109.7	107.9
Foodstuffs and feedstuffs.....	114.4	115.3	117.3	115.5	112.9	112.2	111.0	110.5	110.4	112.1	113.8	115.6	113.5	110.4
Nonfood materials except fuel.....	106.9	107.0	106.6	106.9	105.3	104.2	104.0	104.0	104.8	104.1	102.6	102.1	101.8	102.0
Manufacturing.....	105.6	105.8	105.6	105.9	104.3	103.2	103.0	103.0	103.9	103.2	101.6	101.0	100.8	101.0
Construction.....	120.3	120.2	118.0	117.5	116.4	115.3	115.3	115.1	114.9	114.1	114.1	113.8	113.2	114.0
Crude fuel.....	131.8	131.5	125.2	124.7	122.2	121.5	121.1	119.9	118.1	117.2	117.1	116.8	116.4	117.6
Manufacturing industries.....	126.2	126.0	121.5	121.2	119.6	118.8	118.6	117.8	116.7	115.6	115.5	115.3	115.0	116.0
Nonmanufacturing industries.....	139.2	138.8	130.3	129.4	125.8	125.0	124.5	122.8	120.1	119.4	119.3	118.7	118.2	119.8
<b>INTERMEDIATE MATERIALS, SUPPLIES AND COMPONENTS</b> .....	115.7	115.3	114.8	114.7	114.4	113.5	113.1	112.8	112.4	111.9	111.4	111.4	111.4	111.8
Materials and Components for Manufacturing.....	115.3	115.0	114.4	113.9	113.6	112.9	112.6	112.2	111.8	111.4	110.6	110.4	110.2	110.8
Materials for food manufacturing.....	122.5	123.4	122.9	121.5	121.1	119.9	120.0	119.2	118.3	118.4	117.8	117.8	116.3	116.8
Materials for nondurable manufacturing.....	102.8	102.7	102.4	102.3	102.3	101.6	101.7	101.5	101.7	101.7	101.2	101.1	100.9	101.2
Materials for durable manufacturing.....	125.4	124.5	123.4	122.7	122.1	121.4	120.4	120.0	119.6	118.7	117.4	117.1	117.5	118.1
Components for manufacturing.....	119.0	118.7	118.3	118.0	117.7	117.0	116.7	116.1	115.1	114.3	113.9	113.4	113.1	114.0
Materials and Components for Construction.....	118.6	118.2	117.7	117.3	117.3	116.8	116.7	116.2	115.8	115.5	115.4	116.0	117.6	116.9
Processed fuels and lubricants.....	105.1	103.6	103.0	103.0	102.4	102.7	102.1	102.3	101.0	100.6	100.8	100.9	100.5	100.9
Manufacturing industries.....	107.3	106.7	106.1	106.0	105.3	105.1	104.5	104.8	103.2	102.3	102.4	102.4	102.4	103.1
Nonmanufacturing industries.....	101.6	98.8	98.3	98.3	97.8	99.0	98.4	98.4	97.6	97.8	98.4	98.5	97.5	97.4
Containers.....	118.5	118.5	118.1	117.6	116.2	114.8	114.6	114.5	114.2	113.7	113.3	113.2	113.1	113.3
Supplies.....	118.3	118.5	117.6	120.1	119.7	116.9	115.9	115.6	115.1	114.4	114.3	113.8	113.3	114.4
Manufacturing industries.....	121.9	121.7	121.1	120.9	120.5	119.4	118.7	118.0	117.8	117.4	116.8	116.7	116.5	117.0
Nonmanufacturing industries.....	116.0	116.4	115.4	119.1	118.6	115.1	113.9	113.9	113.3	112.4	112.5	111.9	111.2	112.5
Manufactured animal feeds.....	111.4	113.2	110.7	122.8	123.7	114.1	111.6	112.3	111.7	110.5	110.8	109.3	107.4	110.6
Other supplies.....	114.5	114.2	113.9	113.4	112.3	111.8	111.4	111.0	110.4	109.7	109.7	109.6	109.4	109.8
<b>FINISHED GOODS (Including Raw Foods and Fuels)</b> .....	118.7	118.6	119.0	118.8	118.8	118.0	117.6	116.5	116.0	115.7	115.9	115.4	114.7	115.3
Consumer Goods.....	117.0	116.8	117.4	117.3	117.3	116.5	116.2	115.1	114.7	114.4	114.8	114.2	113.5	114.0
Foods.....	123.6	124.1	126.0	125.9	126.4	124.5	123.9	121.2	121.6	121.2	122.3	121.3	120.1	120.3
Crude.....	115.0	114.3	123.3	128.0	131.6	129.5	131.0	114.2	116.9	112.4	114.9	111.3	116.0	117.5
Processed.....	125.2	125.9	126.4	125.4	125.3	123.5	122.5	122.4	122.4	122.8	123.7	123.1	120.9	120.7
Other nondurable goods.....	115.6	114.9	114.7	114.6	114.2	114.1	113.8	113.6	113.3	113.0	112.6	112.2	111.4	112.3
Durable goods.....	108.0	107.8	107.8	107.6	107.4	107.2	107.1	106.9	105.3	105.2	105.6	105.5	105.4	105.8
Producer Finished Goods.....	124.0	123.7	123.5	123.1	122.9	122.3	121.5	120.8	119.9	119.3	119.3	118.7	118.5	119.3
Manufacturing industries.....	129.5	129.1	128.9	128.4	128.0	127.5	126.2	125.8	125.0	124.4	124.4	123.5	123.2	124.1
Nonmanufacturing industries.....	118.8	118.7	118.5	118.2	118.0	117.4	117.0	116.1	115.0	114.4	114.5	114.2	113.9	114.7
SPECIAL GROUPINGS														
Crude materials for further processing, excluding crude foodstuffs and feedstuffs, plant and animal fibers, oilseeds and leaf tobacco.....	120.0	120.3	118.5	118.5	116.0	114.5	114.1	113.7	113.9	112.5	110.7	110.2	109.7	110.5
Intermediate materials supplies and components, excluding intermediate materials for food mfg., and mfr.'d animal feeds.....	115.2	114.7	114.2	113.9	113.5	112.9	112.6	112.2	111.8	111.3	110.9	110.8	111.1	111.3
Consumer finished goods, excluding consumer foods.....	112.7	112.2	112.1	111.9	111.7	111.5	111.3	111.1	110.3	110.1	110.0	109.7	109.2	109.9

<sup>1</sup> See footnote 1, table 26.<sup>2</sup> See footnote 2, table 26.

NOTE: For description of the series by stage of processing, see Wholesale Prices and Price Indexes, January 1967 (final) and February 1967 (final).

29. Wholesale price indexes,<sup>1</sup> by durability of product[1957-59=100]<sup>2</sup>

Commodity group	1970					1969								Annual average 1969
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	
All commodities.....	116.8	116.6	116.6	116.4	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.2	112.8	113.0
Total durable goods.....	121.3	120.9	120.5	120.0	119.6	119.0	118.4	117.9	117.1	116.5	116.1	115.9	116.1	116.6
Total nondurable goods.....	113.6	113.6	113.9	113.9	113.4	112.4	111.9	111.2	111.1	111.1	111.3	111.2	110.3	110.3
Total manufactures.....	117.1	116.9	116.6	116.4	116.1	115.3	114.9	114.6	113.9	113.6	113.5	113.2	112.8	113.3
Durable.....	121.0	120.5	120.1	119.7	119.4	118.8	118.3	117.9	117.0	116.4	116.1	116.0	116.2	116.6
Nondurable.....	113.4	113.4	113.2	113.2	113.0	111.9	111.6	111.4	111.0	111.0	111.0	110.6	109.6	110.1
Total raw or slightly processed goods.....	114.5	114.7	116.3	116.0	114.8	113.9	113.1	111.0	111.6	111.5	112.2	112.6	112.1	110.9
Durable.....	131.9	131.9	134.0	133.8	128.9	125.3	124.0	122.8	123.7	119.7	114.8	114.9	113.3	115.8
Nondurable.....	113.6	113.8	115.3	115.1	114.1	113.3	112.5	110.3	110.9	111.1	112.1	112.4	112.0	110.7

<sup>1</sup> See footnote 1, table 26.<sup>2</sup> See footnote 2, table 26.

NOTE: For description of the series by durability of product and data beginning with 1947, see "Wholesale Price and Price Indexes, 1957" (BLS Bulletin 1235, 1958).

30. Industry-sector price indexes for the output of selected industries<sup>1</sup>

[1957-59=100 unless otherwise indicated]

1963 SIC Code	Industry	Other bases	1969													1968 Dec.	Annual average 1969
			Dec. <sup>2</sup>	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.			
<b>MINING</b>																	
1111	Anthracite.....		118.4	114.9	111.4	111.4	108.0	108.0	104.2	104.2	106.2	107.4	107.4	107.0	107.0	109.0	
1211	Bituminous coal.....		124.9	124.2	121.3	116.2	116.1	116.0	115.0	114.1	113.4	113.1	113.1	113.1	113.1	116.7	
1311	Crude petroleum and natural gas.....		110.9	110.9	110.8	110.9	110.6	110.5	110.6	110.7	110.9	109.9	106.6	106.5	106.4	110.0	
1421	Crushed and broken stone.....		114.5	114.5	114.2	114.2	113.6	113.6	113.6	112.6	112.5	112.5	112.5	112.5	111.3	113.4	
1442	Construction sand and gravel.....		123.0	123.0	123.0	122.5	121.5	121.5	120.7	120.6	120.8	120.6	119.8	119.8	118.6	121.4	
1475	Phosphate rock.....		147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	
1476	Rock salt.....		107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	100.8	100.8	100.8	100.8	105.5	
1477	Sulfur.....		115.8	115.8	124.1	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	173.7	173.7	154.4	
<b>MANUFACTURING</b>																	
2011	Meat slaughtering plants.....	12/66	114.0	113.5	113.8	116.2	117.4	121.7	121.2	114.8	108.0	104.6	103.9	104.2	100.1	112.8	
2013	Meat processing plants.....	12/66	121.3	118.5	119.1	120.3	122.0	118.7	117.0	109.7	104.8	103.4	101.7	100.3	100.7	113.1	
2015	Poultry dressing plants.....		105.7	103.3	101.7	104.0	107.8	103.3	101.7	102.3	96.1	99.6	98.5	95.9	90.4	101.7	
2021	Creamery butter.....	12/66	106.3	105.1	105.1	105.1	104.9	104.9	104.8	104.8	104.9	103.4	103.3	103.4	105.0	104.7	
2033	Canned fruits and vegetables.....	12/66	109.8	109.7	109.5	109.0	108.7	108.7	107.7	107.7	107.8	107.7	107.6	107.4	107.3	108.4	
2036	Fresh or frozen packaged fish.....		150.8	154.1	146.5	145.9	143.8	146.4	139.9	140.4	136.8	141.7	141.4	140.1	139.0	144.0	
2044	Rice milling.....		94.0	94.0	94.0	93.1	92.6	92.6	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.6	
2052	Biscuits, crackers and cookies.....	12/66	109.7	109.7	108.0	107.1	104.5	104.4	104.4	104.4	104.3	104.3	104.3	104.3	104.3	105.8	
2061	Raw cane sugar.....	12/66	107.0	110.1	110.5	109.6	108.9	104.5	109.5	109.5	109.0	108.5	107.7	107.5	106.8	108.5	
2062	Cane sugar refining.....	12/66	108.9	109.3	109.2	108.4	108.1	107.6	107.6	107.2	105.8	103.9	103.6	103.6	103.2	106.9	
2063	Beet sugar.....	12/66	106.1	106.6	106.7	106.4	106.3	105.7	106.7	104.9	105.0	102.3	102.2	102.6	102.5	105.1	
2073	Chewing gum.....		106.2	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	
2082	Malt liquors.....		107.3	107.3	107.7	107.1	107.2	107.2	106.7	106.0	104.9	104.9	104.9	104.9	104.9	106.3	
2083	Malt.....		96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8		
2084	Wines and brandy.....	12/66	118.3	118.3	118.3	115.5	115.5	115.7	115.7	115.7	115.7	115.7	115.5	115.5	116.3		
2091	Cottonseed oil mills.....		99.4	95.8	91.5	97.0	97.2	98.3	92.9	92.7	93.9	93.6	93.7	95.0	94.5		
2092	Soybean oil mills.....	12/66	88.6	88.0	91.0	85.7	87.4	87.1	87.0	86.3	85.6	84.8	83.1	83.3	82.2	86.5	
2094	Animal and marine fats and oils.....	12/66	96.4	104.9	102.1	105.8	104.6	99.6	93.8	89.0	88.9	85.1	82.9	81.3	79.7	94.5	
2096	Shortening and cooking oils.....		108.8	107.2	105.5	102.6	102.5	102.3	103.3	103.1	103.2	103.1	102.9	101.0	100.3	103.8	
2098	Macaroni and noodle products.....	12/66	101.9	101.9	101.9	101.9	101.8	101.9	101.8	101.8	101.5	100.4	100.3	100.3	100.3	101.5	
2111	Cigarettes.....		125.1	125.0	125.0	125.0	125.0	125.0	124.9	117.5	117.5	117.4	117.4	117.4	121.9		
2121	Cigars.....		107.3	107.3	106.8	106.8	105.2	103.8	102.7	102.7	102.7	102.1	102.0	102.0	101.7	104.3	
2131	Chewing and smoking tobacco.....		141.4	140.6	138.5	138.3	138.1	138.1	137.1	137.0	136.0	134.7	134.7	132.4	132.4	137.2	
2254	Knit underwear mills.....	12/66	107.8	107.7	107.7	107.7	107.7	107.7	106.3	106.4	106.3	106.3	106.3	106.3	105.7	107.0	
2311	Men's and boys' suits and coats.....		142.7	142.2	140.4	139.4	138.5	137.1	135.8	134.4	134.7	134.3	134.3	134.2	133.4	137.3	
2321	Men's dress shirts and nightwear.....		122.1	121.0	121.0	120.6	120.6	118.3	118.2	118.2	118.8	118.8	118.9	118.7	115.5	119.6	
2322	Men's and boys' underwear.....	12/66	109.1	109.0	109.0	107.9	107.9	107.7	106.9	107.0	107.1	107.1	107.0	106.9	106.4	107.7	
2327	Men's and boys' separate trousers.....	12/66	106.9	106.8	106.8	106.4	106.3	106.1	106.1	104.8	104.8	104.7	104.7	104.7	103.9	105.8	
2328	Work clothing.....		119.1	119.0	119.0	118.3	117.7	117.4	117.4	116.6	116.6	116.6	116.6	116.5	115.1	117.6	
2381	Fabric dress and work gloves.....		137.1	135.4	135.4	134.8	132.1	131.9	131.9	131.9	131.7	130.8	130.8	130.1	128.4	132.8	
2426	Hardwood dimension and flooring.....	12/66	116.5	116.6	116.7	117.2	117.3	117.8	119.0	120.7	121.1	120.6	118.8	116.5	114.7	118.2	
2442	Wirebound boxes and crates.....	12/67	110.7	110.0	110.0	110.0	108.6	108.3	107.4	107.4	106.5	106.4	106.4	106.3	105.6	108.2	
2515	Mattresses and bedsprings.....	12/66	108.2	108.7	108.5	108.5	108.5	108.3	108.2	108.2	108.3	108.2	108.2	106.7	104.3	108.2	
2521	Wood office furniture.....		139.2	138.9	137.6	135.9	134.3	134.3	134.3	133.4	132.8	132.2	131.7	131.1	131.1	134.6	
2647	Sanitary paper products.....	12/66	115.3	115.3	113.9	113.5	113.1	112.3	111.5	111.1	111.1	111.1	110.2	108.0	108.0	112.2	
2654	Sanitary food containers.....	12/66	101.3	101.2	100.6	100.4	100.4	100.1	100.7	100.6	100.6	100.4	100.7	100.8	100.5	100.7	

See footnotes at end of table.

## 30. Industry-sector price indexes for the output of selected industries 1—Continued

1963 SIC Code	Industry	Other bases	1969												1968 Dec.	Annual Average 1969
			Dec. 2	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.		
<b>MANUFACTURING—Continued</b>																
2822	Synthetic rubber.....		96.0	96.0	96.0	96.0	95.9	95.9	95.9	95.9	95.8	95.3	95.3	94.5	94.7	95.7
2823	Cellulosic man-made fibers.....		95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.8	95.8	95.8	95.7	95.7
2824	Organic fibers, noncellulosic.....	12/66	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
2871	Fertilizers.....	12/66	85.0	85.0	85.4	88.3	88.5	88.7	99.2	99.2	99.2	99.4	99.4	99.6	100.3	93.1
2872	Fertilizers, mixing only.....	12/66	90.6	90.6	91.2	92.7	92.6	93.1	93.3	93.3	93.3	93.9	93.7	94.1	94.8	92.7
2892	Explosives.....		117.1	117.3	117.3	117.4	117.5	117.4	117.5	116.9	115.0	114.8	114.1	114.1	114.6	116.4
2911	Petroleum refining.....		97.8	97.3	97.3	97.5	98.1	98.8	98.8	98.0	98.0	97.1	95.1	94.7	95.1	97.4
3111	Leather tanning and finishing.....		120.4	120.5	121.2	122.3	121.5	121.7	122.1	122.2	122.8	116.7	116.7	117.0	116.1	120.4
3121	Industrial leather belting.....	12/66	118.3	117.2	117.4	117.6	118.2	117.5	113.5	115.4	112.0	111.5	110.5	109.7	111.0	114.9
3221	Glass containers.....		116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	110.3	116.1
3241	Cement, hydraulic.....		114.9	114.9	114.9	114.9	114.8	114.8	114.8	114.8	114.8	114.7	111.7	108.5	105.9	114.0
3251	Brick and structural clay tile.....		125.1	125.1	124.4	124.4	123.5	123.5	123.4	123.2	123.0	121.5	121.5	121.4	121.2	123.3
3255	Clay refractories.....		126.2	122.2	122.2	122.2	122.0	117.8	117.8	117.8	117.8	116.7	116.7	116.7	116.7	119.7
3259	Structural clay products, n.e.c.....		116.4	116.4	115.9	115.1	115.0	114.4	114.8	115.3	115.3	115.3	115.1	115.0	114.1	115.3
3261	Vitreous plumbing fixtures.....		104.6	104.2	103.4	102.4	102.4	102.4	100.9	100.8	99.8	99.8	99.7	99.5	99.1	101.7
3262	Vitreous china food utensils.....		143.7	143.7	139.8	139.8	139.8	139.8	137.2	137.2	137.2	134.3	134.3	134.3	134.3	138.4
3263	Fine earthenware food utensils.....		131.2	131.2	130.9	130.9	130.9	130.9	127.0	127.0	127.0	123.3	123.3	123.3	123.3	128.1
3271	Concrete block and brick.....		115.4	115.0	114.9	114.6	114.5	114.5	113.7	114.2	114.2	114.5	113.4	112.9	111.7	114.3
3273	Ready mixed concrete.....	1958	115.7	114.9	114.7	114.4	113.7	113.5	112.7	112.6	112.3	112.0	111.8	111.7	110.3	113.3
3275	Gypsum products.....		104.7	110.1	106.2	106.4	103.6	105.2	108.9	108.9	106.5	106.5	106.5	106.5	106.5	106.7
3312	Blast furnace and steel mills.....		115.3	115.3	115.2	114.4	114.3	112.5	111.8	111.7	110.8	110.6	109.5	109.3	107.7	112.6
3315	Steel wire drawing, etc.....	12/66	108.6	108.5	108.4	107.5	107.0	106.4	106.3	105.9	105.1	105.1	105.1	104.5	103.7	106.5
3316	Cold finishing of steel shapes.....	12/66	113.6	113.7	113.7	112.1	112.1	109.0	109.0	108.7	107.5	107.4	107.4	107.2	107.0	110.1
3317	Steel pipe and tube.....	12/66	110.5	110.4	110.4	108.4	107.8	107.7	107.3	107.3	107.2	105.7	105.6	104.8	104.7	107.8
3333	Primary zinc.....	12/66	107.7	107.7	107.4	105.6	100.9	100.6	100.5	100.4	97.1	96.9	96.9	97.2	93.9	101.6
3334	Primary aluminum.....	12/66	114.0	114.0	114.0	110.0	110.0	110.0	109.0	109.0	109.0	109.0	109.0	106.1	105.4	110.3
3339	Primary nonferrous metals, n.e.c.....	12/66	134.8	138.9	133.9	131.8	123.8	120.5	120.1	120.1	120.3	119.5	119.8	122.3	119.4	125.5
3351	Copper rolling and drawing.....		171.4	166.4	166.4	165.9	160.6	154.5	152.3	151.7	147.8	146.8	142.8	142.8	134.3	155.6
3411	Metal cans.....	12/66	109.0	109.0	109.0	109.0	109.0	108.9	108.9	108.9	108.9	108.9	108.8	106.3	106.2	108.7
3423	Hand and edge tools.....	12/67	110.8	110.6	109.6	108.4	108.4	107.8	107.1	106.9	107.2	106.3	105.9	105.0	104.8	107.8
3431	Metal plumbing fixtures.....		100.4	100.3	99.8	99.4	98.8	98.7	97.3	96.6	95.8	95.8	95.7	95.3	95.0	97.8
3493	Steel springs.....	12/66	107.2	107.2	107.2	106.8	106.8	106.8	106.3	106.0	105.9	105.8	105.8	105.8	105.2	106.5
3496	Collapsible tubes.....	1958	103.8	103.7	103.7	103.7	103.6	103.6	103.5	103.2	103.2	103.1	103.0	102.9	101.5	103.4
3498	Fabricated pipe and fittings.....		130.9	130.8	130.4	130.4	130.3	130.3	129.7	129.7	129.7	123.4	123.4	123.4	122.7	128.5
3519	Internal combustion engines.....	12/66	110.9	110.8	110.1	109.7	109.1	108.0	108.3	108.3	107.9	107.5	106.9	106.7	106.6	108.7
3533	Oil field machinery.....		125.1	122.7	122.5	122.4	121.8	121.5	121.0	120.8	120.4	120.0	119.1	119.0	118.0	121.4
3534	Elevators and moving stairways.....	12/66	110.5	107.7	107.7	107.6	107.6	107.6	104.5	104.5	104.5	104.5	103.9	103.9	103.9	166.2
3537	Industrial trucks and tractors.....		134.0	133.9	133.6	132.6	131.2	131.2	130.5	129.1	128.6	128.6	128.2	128.1	127.2	130.8
3562	Ball and roller bearings.....	12/66	105.7	103.7	103.7	102.6	102.6	102.2	102.2	102.1	102.1	102.1	102.1	101.6	101.6	102.7
3572	Typewriters.....	12/66	103.9	103.8	103.2	103.1	103.1	101.5	101.4	101.3	100.5	100.6	100.6	100.6	100.6	102.0
3576	Scales and balances.....		133.4	133.2	133.0	133.0	129.9	129.9	128.6	127.0	127.0	126.9	126.9	126.3	126.4	129.6
3612	Transformers.....	12/66	100.3	99.3	100.2	101.6	101.6	101.3	101.1	100.2	100.8	102.2	102.3	104.6	104.6	101.3
3613	Switchgear and switchboards.....	12/66	107.1	106.7	105.7	105.9	103.6	104.4	104.9	104.0	103.6	104.3	104.9	104.8	104.4	105.0
3624	Carbon and graphite products.....	12/67	104.8	104.4	104.4	104.3	104.3	104.3	103.0	101.1	101.0	101.0	101.0	101.0	101.0	102.9
3635	Household vacuum cleaners.....	12/66	99.9	99.9	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.5	99.8
3641	Electric lamps.....	12/66	98.4	98.5	99.2	101.1	100.3	99.6	104.1	103.1	103.6	102.7	103.0	103.0	103.0	101.4
3652	Phonograph records.....		123.5	123.5	123.5	123.5	122.6	122.6	122.3	122.3	122.3	122.3	122.3	121.3	119.8	122.7
3671	Electron tubes, receiving type.....	12/66	121.2	121.3	121.3	121.2	117.8	117.8	117.8	117.8	117.8	117.7	109.6	105.9	105.9	117.3
3672	Cathode ray picture tubes.....	12/66	87.5	89.7	90.0	90.0	90.0	90.0	89.9	89.9	89.9	89.9	89.8	89.9	89.7	89.7
3673	Electron tubes, transmitting.....	12/66	103.2	103.2	103.1	103.0	102.9	102.9	102.1	102.1	102.0	102.0	102.0	102.1	102.1	102.6
3674	Semiconductors.....	12/66	92.7	92.8	92.7	92.6	92.7	92.6	92.6	92.7	92.7	92.6	92.4	92.4	92.5	92.6
3692	Primary batteries, dry and wet.....		115.4	115.4	115.3	115.2	115.2	115.2	115.2	115.2	115.2	114.9	113.8	112.5	111.3	114.9
3693	X-ray apparatus and tubes.....	12/67	117.4	115.6	115.4	113.1	112.8	112.8	112.5	112.6	111.0	111.3	111.4	111.1	107.7	113.1
3941	Games and toys.....	12/66	112.1	112.2	111.4	111.4	111.4	111.1	111.1	111.1	111.2	111.1	111.2	110.3	110.1	111.3

<sup>1</sup> For a description of the series, see BLS Handbook of Methods for Surveys and Studies (BLS Bulletin 1458), Chapter 12. See also, "Industry and Sector Price indexes," in Monthly Labor Review, August 1965, pp. 974-982.

<sup>2</sup> Current monthly industry-sector price indexes are not available for this issue. At the beginning of each calendar year, changes in the sample for some indexes must be

made and necessary internal reweighting accomplished; this has caused the delay. Indexes beginning with January 1970 will be published in a later report.

NOTE: Beginning in January 1967, index weights and classifications are based on the 1963 Censuses of Manufactures and Minerals. They were formerly based on the 1958 Industrial Censuses.

31. Work stoppages resulting from labor-management disputes <sup>1</sup>

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year (thousands)	In effect during month (thousands)	Number (thousands)	Percent of estimated working time
1945	4,750		3,470		38,000	0.31
1946	4,985		4,600		116,000	1.04
1947	3,693		2,170		34,600	.30
1948	3,419		1,960		34,100	.28
1949	3,606		3,030		50,500	.44
1950	4,843		2,410		38,800	.33
1951	4,737		2,220		22,900	.18
1952	5,117		3,540		59,100	.48
1953	5,091		2,400		28,300	.22
1954	3,468		1,530		22,600	.18
1955	4,320		2,650		28,200	.22
1956	3,825		1,900		33,100	.24
1957	3,673		1,390		16,500	.12
1958	3,694		2,060		23,900	.18
1959	3,708		1,880		69,000	.50
1960	3,333		1,320		19,100	.14
1961	3,367		1,450		16,300	.11
1962	3,614		1,230		18,600	.13
1963	3,362		941		16,100	.11
1964	3,655		1,640		22,900	.15
1965	3,963		1,550		23,300	.15
1966	4,405		1,960		25,400	.15
1967	4,595		2,870		42,100	.25
1968	5,045		2,649		49,018	.28
1969	5,700		2,481		42,869	.24
1967: January	286	443	94.4	163.5	1,247.9	.09
February	292	485	104.1	159.2	1,275.8	.10
March	368	545	129.9	195.4	1,507.8	.10
April	462	638	397.6	438.8	2,544.8	.19
May	528	769	277.8	584.9	4,406.4	.30
June	472	759	211.8	405.0	4,927.4	.33
July	389	682	664.6	865.5	4,328.7	.32
August	392	689	91.3	233.1	2,859.5	.18
September	415	681	372.8	473.6	6,159.8	.45
October	449	727	178.8	458.7	7,105.6	.47
November	360	653	277.1	559.5	3,213.2	.22
December	182	445	74.4	209.5	2,546.5	.18
1968: January	314	483	187.8	275.7	2,668.5	.18
February	357	569	275.0	451.3	4,104.1	.29
March	381	618	174.5	368.7	3,682.0	.26
April	505	748	537.2	656.7	5,677.4	.38
May	610	930	307.3	736.2	7,452.2	.49
June	500	810	168.5	399.9	5,576.8	.40
July	520	880	202.0	465.1	4,611.9	.30
August	466	821	153.8	359.6	4,048.9	.26
September	448	738	169.8	349.0	3,081.1	.22
October	434	741	279.0	414.5	3,991.7	.25
November	327	617	129.9	306.1	2,430.5	.17
December	183	408	64.1	189.2	1,692.5	.11
1969: January	342	511	184.9	264.3	3,173.3	.21
February	385	578	177.1	339.9	2,565.8	.18
March	436	651	158.1	386.3	2,412.5	.16
April	578	831	309.7	462.3	3,755.0	.24
May	723	1,054	286.3	507.7	4,744.7	.32
June	565	911	214.6	500.0	4,722.7	.31
July	528	883	255.0	461.5	4,311.0	.27
August	538	915	191.2	394.8	3,634.3	.24
September	554	904	185.6	274.5	2,193.4	.15
October	531	850	337.0	420.9	3,167.5	.19
November	324	611	131.0	367.6	4,307.6	.31
December	196	446	50.8	276.0	3,881.8	.24
1970: January <sup>p</sup>	260	420	55	233	3,730	.25
February <sup>p</sup>	290	460	106	296	1,820	.13
March <sup>p</sup>	390	570	294	364	2,230	.14
April <sup>p</sup>	600	810	319	385	4,181	.26

<sup>1</sup> The data include all known strikes or lockouts involving 6 workers or more and lasting a full day or shift or longer. Figures on workers involved and man-days idle cover all workers made idle for as long as 1 shift in establishments directly involved in

a stoppage. They do not measure the indirect or secondary effect on other establishments or industries whose employees are made idle as a result of material or service shortages.  
<sup>p</sup>-Preliminary.



## 32. Output per man-hour, hourly compensation and unit labor costs, private economy, seasonally adjusted

[Indexes 1957-59=100]

Year and quarter	Output		Man-hours		Output per man-hour		Compensation per man-hour <sup>1</sup>		Real compensation per man-hour <sup>2</sup>		Unit labor costs	
	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm
1967: 1st quarter.....	146.4	148.2	110.6	115.5	132.4	128.3	147.9	143.5	129.0	125.2	111.7	111.9
2d quarter.....	147.2	148.9	109.6	114.9	134.4	129.6	150.3	145.5	130.1	126.0	111.9	112.3
3d quarter.....	148.9	150.7	110.3	115.3	134.9	130.6	152.2	147.6	130.4	126.4	112.9	113.0
4th quarter.....	150.2	152.1	110.9	116.0	135.4	131.1	154.3	149.7	131.1	127.2	114.0	114.2
Annual average.....	148.2	150.0	110.4	115.4	134.3	129.9	151.2	146.6	130.1	126.2	112.6	112.9
1968: 1st quarter.....	152.4	154.3	111.2	116.4	137.0	132.6	158.5	153.6	133.3	129.2	115.7	115.9
2d quarter.....	155.2	157.5	112.2	117.5	138.3	134.1	160.8	155.7	133.7	129.4	116.3	116.1
3d quarter.....	156.7	159.0	112.7	118.3	139.0	134.4	163.7	158.1	134.5	129.8	117.8	117.6
4th quarter.....	158.1	160.6	112.6	118.3	140.4	135.8	167.8	162.0	136.3	131.5	119.6	119.4
Annual average.....	155.6	157.9	112.2	117.6	138.7	134.2	162.7	157.4	134.4	130.0	117.4	117.3
1969: 1st quarter.....	159.1	161.5	113.7	119.6	139.9	135.0	170.5	164.4	136.7	131.8	121.8	121.8
2d quarter.....	159.9	162.3	114.6	120.7	139.5	134.5	172.7	166.5	136.2	131.3	123.8	123.8
3d quarter.....	160.8	163.1	115.0	121.4	139.8	134.4	175.8	169.1	136.8	131.5	125.8	125.8
4th quarter.....	160.5	163.2	114.3	121.0	140.3	134.9	179.4	172.2	137.6	131.2	127.8	127.7
Annual average.....	160.1	162.5	114.4	120.6	139.9	134.7	174.7	168.1	136.9	131.7	124.9	124.8
1970: 1st quarter <sup>p</sup> .....	159.7	162.2	114.0	120.6	140.1	134.5	182.7	175.2	138.0	132.3	130.4	130.3
Percent change over previous quarter at annual rate <sup>3</sup>												
1967: 1st quarter.....	-1.4	-2.2	0.0	-0.3	-1.4	-1.9	3.9	4.9	3.2	4.1	5.3	6.9
2d quarter.....	2.3	1.9	-3.7	-2.1	6.2	4.1	6.7	5.5	3.7	2.6	0.5	1.4
3d quarter.....	4.5	4.8	2.9	1.7	1.5	3.0	5.2	5.8	0.9	1.6	3.6	2.7
4th quarter.....	3.6	3.9	2.1	2.4	1.5	1.5	5.6	5.9	2.1	2.3	4.1	4.4
1968: 1st quarter.....	6.0	6.0	1.0	1.2	4.9	4.8	11.3	10.9	6.8	6.5	6.0	5.9
2d quarter.....	7.4	8.4	3.5	3.8	3.8	4.5	6.0	5.5	1.1	0.7	2.1	1.0
3d quarter.....	4.1	4.0	1.9	2.8	2.1	1.1	7.5	6.4	2.3	1.3	5.3	5.3
4th quarter.....	3.5	4.0	-0.3	0.0	3.8	4.0	10.4	10.3	5.5	5.4	6.3	6.0
1969: 1st quarter.....	2.6	2.2	3.8	4.6	-1.2	-2.3	6.4	5.8	1.4	0.8	7.6	8.3
2d quarter.....	1.9	2.0	3.2	3.5	-1.3	-1.4	5.4	5.4	-1.4	-1.4	6.8	6.9
3d quarter.....	2.2	2.0	1.3	2.4	0.8	-0.4	7.4	6.2	1.5	0.4	6.5	6.6
4th quarter.....	-0.7	0.2	-2.3	-1.3	1.6	1.5	8.3	7.6	2.4	1.8	6.6	6.0
1970: 1st quarter <sup>p</sup> .....	-1.9	-2.4	-1.3	-1.2	-0.6	-1.2	7.7	7.1	1.4	0.8	8.4	8.4
Percent change over previous year <sup>4</sup>												
1969: 1st quarter.....	4.4	4.6	2.2	2.8	2.1	1.8	7.6	7.0	2.6	2.0	5.3	5.1
2d quarter.....	3.0	3.0	2.2	2.7	0.8	0.3	7.4	7.0	1.9	1.5	6.5	6.6
3d quarter.....	2.6	2.6	2.0	2.6	0.5	0.0	7.4	6.9	1.7	1.3	6.8	7.0
4th quarter.....	1.5	1.6	1.5	2.3	0.0	-0.7	6.9	6.2	1.0	0.4	6.9	6.9
1970: 1st quarter <sup>p</sup> .....	0.4	0.4	0.2	0.8	0.1	-0.4	7.2	6.6	1.0	0.4	7.1	7.0

<sup>1</sup> Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Also includes an estimate of wages, salaries, and supplementary payments for the self-employed.

<sup>2</sup> Compensation per man-hour adjusted for changes in the consumer price index.

<sup>3</sup> Percent change computed from original data.

<sup>4</sup> Current quarter divided by comparable quarter a year ago.

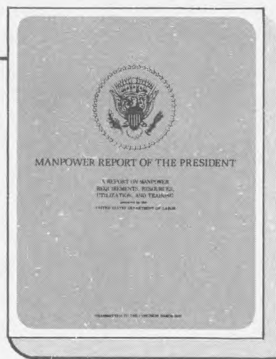
SOURCE: Output data from the Office of Business Economics, U.S. Department of Commerce. Man-hours and compensation of all persons from the Bureau of Labor Statistics.

<sup>p</sup> = Preliminary

## Scheduled release dates for major BLS statistical series, August 1970

Title	Date of release	Period covered	MLR table numbers
Employment situation.....	August 7	July	1-14
Wholesale Price Index, final.....	September 8	August	26-30
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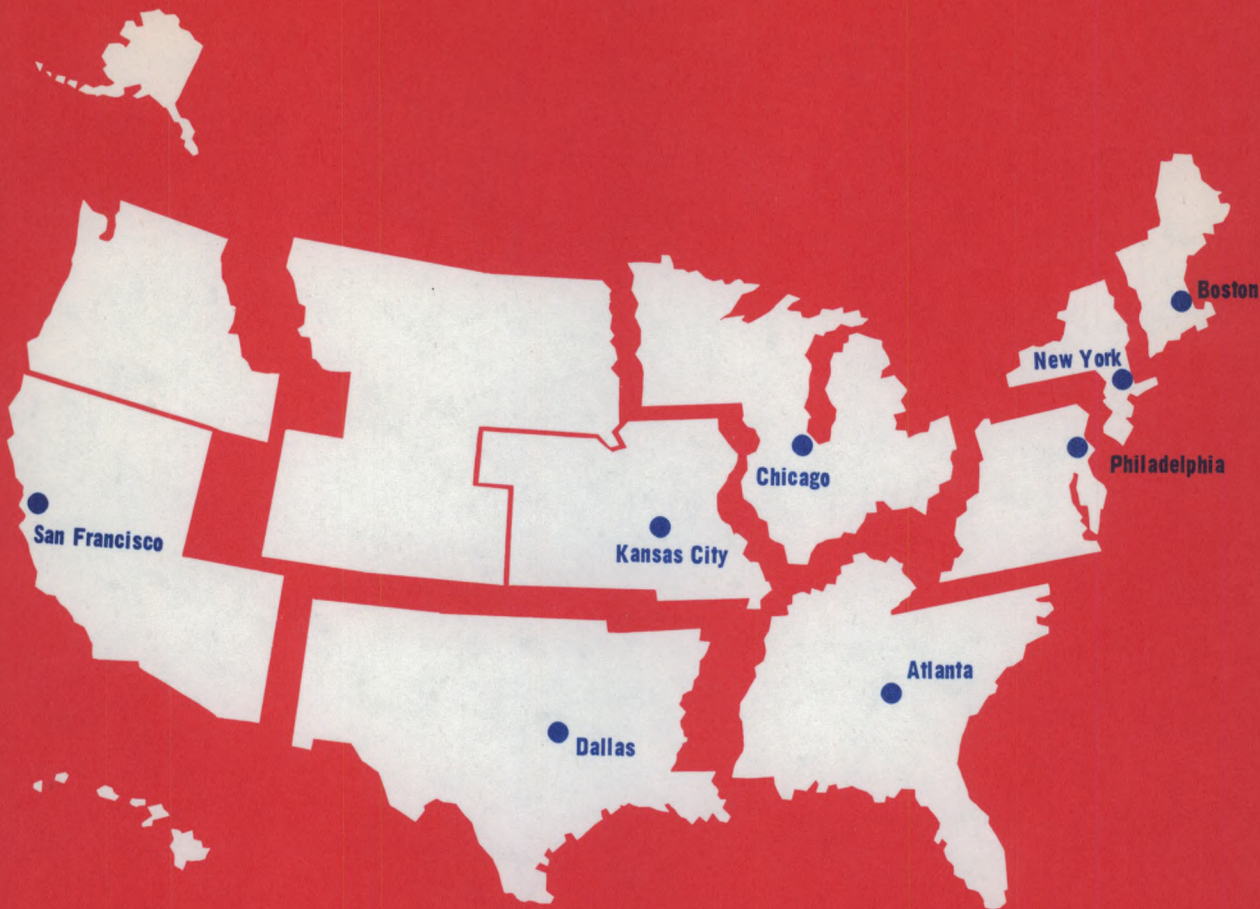
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