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5

Role of Labor Cost in Foreign Trade

1962 Labor Force Reports on—

Multiple Jobholders

Workers' Educational Attainment

Employment and Unemployment

UNITED STATES DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS



UNITED STATES DEPARTMENT OF LABOR

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, *Editor-in-Chief* (on leave)
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Monthly Labor Review

U.S. DEPARTMENT OF LABOR BUREAU OF ECONOMIC ANALYSIS

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The Labor Month in Review

IN MID-MAY, the longstanding dispute between the railroads and the five unions representing on-train employees reached a new critical point. During the previous 30 days, the Emergency Board appointed by President John F. Kennedy under the Railway Labor Act procedures had spent most of its time attempting to mediate the issues—the usual factfinding mission of such a board already having been undertaken by the Presidential Railroad Commission, which had reported over a year ago.

On May 13, the Board members, Nathan P. Feinsinger, Clark Kerr, and Samuel I. Rosenman, chairman, submitted their report to the President. It pointed out that unless the dispute was resolved within the 30 days during which the Railway Labor Act prohibits unilateral action by any of the parties, the Nation faces the renewed prospect of a strike or lockout. The Board, despite its inability to report the signing of an agreement, did conclude that considerable progress had been made. "Positions have softened; the atmosphere has improved; a climate which can support genuine negotiation seems to have been created." The Board said that its recommendations, which are summarized in the following paragraphs, were designed to "foster and stimulate" such bargaining.

THESE PROPOSALS ARE, as the Emergency Board said, "general directions rather than specific solutions," since it believed that bargaining would more likely succeed in that framework. The other general considerations permeating the report are that the elimination of jobs should be accompanied by procedures that assure the safety of remaining employees and prevent an undue burden upon them. Second, if the negotiations recommended in the proposals on such issues as the fireman, the crew makeup, and the combination of road and yard service do not result in reasonably prompt resolution, the Board said that "the disputes should be quickly and definitively resolved by submission to a special referee procedure."

The Fireman. The Board suggested that the parties negotiate a procedure that might follow these lines: A carrier may abolish a job when it becomes vacant—if filling it means a new hire—unless the union files a protest within 5 days of notice that the job is to be eliminated, in which case it should be prepared to establish in the ensuing negotiations that discontinuance of the job would "unduly endanger safety or unduly burden other employees who would have to take on some of the responsibilities formerly performed by the fireman." Should the dispute be unresolved 15 days after receipt of the union protest, it should be submitted to a special referee. Settling one such grievance should be precedent for all others in the same category.

The burden of dislocation resulting from the elimination of fireman jobs should be partially shared by management. Those employees with 10 years or more seniority should retain their rights to firemen's employment, with the possibility of withdrawing and receiving an educational or retraining scholarship, special severance allowance, or a special early retirement plan for which the carriers might make an additional contribution to the pension plan.

Firemen hired after "some reasonable date when it may be presumed that they were on notice that their jobs might not be permanent" may have their employment terminated, along with those who have not been employed in recent times. Those who have been employed irregularly may have their rights terminated with severance pay or choose to stay on the seniority list.

The remaining employees "should retain their rights to firemen's employment unless and until offered, by the carrier involved, another comparable job for which they are, or can become, qualified." This job offer should carry with it relocation expenses if moving is involved, and the continuation of accumulated seniority rights toward such purposes as vacation and other appropriate benefits. A displacement allowance similar to that provided by the Washington Job Protection Agreement should be made to protect such employees against loss of earnings for a period not exceeding 5 years, with the option to elect scholarships or retraining allowances.

Road and Yard Service Crews. At issue are the mechanisms for adjusting any undermanning or

overmanning of road and yard service crews. At present, the crew complement varies in size, with the most typical including three members, according to various local agreements, practices, rules and regulations, and in some cases by State "full-crew" laws.

The brotherhoods and the railroads should establish national guidelines based on considerations of safety, efficiency, and undue burden on the crew members to provide overall direction for local negotiations on the composition of road and yard train service crews. Should local negotiation fail, a grievance may be handled under the special referee procedure. The Board recommends that no force reductions should be made except through attrition. Scholarships, retraining provisions, and severance options should be available "not only in justice to the workers involved but also to accelerate attrition."

On issues related to the makeup of service crews, the Board said that the parties should negotiate a rule that would permit more flexible use of road and yard crews, "while preserving the basic distinctions which are reflected by the existence of separate seniority rights." It further said that there should be negotiations limiting the manning of self-propelled vehicles by operating personnel. Dislocations and displacement of personnel likely to be occasioned by new rules in these areas should be subject to adequate protections, such as those discussed earlier.

Interdivisional Runs. The carriers seek the right to institute interdivisional runs; at present there is a national rule concerning interdivisional runs, but it establishes only a procedure for negotiating them. The brotherhoods offered a proposal in Chicago in mid-1962 which would establish guidelines within which the carriers would have the right to establish interdivisional runs. Although those specific guidelines were not satisfactory to the carriers, the Emergency Board found that the basic procedure of establishing guidelines appears sound.

Compensation. The Board, noting that a wage increase averaging about 2 percent is frequently a part of a thorough wage structure revision, recommends that 2 percent be used in working out adjustments in the railroad industry. To ensure that individuals whose rates are reduced as a

result of modernizing the pay structure are not unduly affected, the Board suggests two approaches: A very long service employee might be allowed to elect to go on the new pay structure or to remain on the old pay structure for the duration of his employment, which would, of course, maintain his earnings opportunities. Second, a monthly or other periodic guarantee might be developed to allow the appropriately covered employees to approximate their current earnings, provided such earnings are not the result of unduly long hours. However, the carriers should be given significantly greater flexibility in making assignments so that this guarantee can be met through actual work performed within a normal number of hours.

FINALLY, the Board proposed that the overall dispute might be resolved more easily if two additional issues were open for discussion. Noting that the parties will shortly consider the matter of a general wage increase, the Board suggested that wage structure revision would probably be accomplished more easily in the context of a general wage increase, in addition to the 2 percent recommended as a concomitant of revision. Second, if provisions for early retirement were subject to current negotiation, the problems of attrition might be more readily solved—especially if the carriers were to contribute some additional funds for this purpose.

Thus, as it had stated, the Emergency Board's report was in the nature of general recommendations for settling this dispute rather than specific findings on the issues as had been put forth in the report of the yearlong study by the Presidential Railroad Commission, which had been rejected by the unions.

In receiving the Emergency Board's report, President Kennedy urged the carriers and the unions to accept its recommendations. The parties have now exhausted the procedures of the Railway Labor Act, which were formally brought into motion in November 1959 with the carriers' proposals to eliminate or revise "many long-established and agreed-upon rules and existing practices." James E. Wolfe, chief railroad negotiator, said the railroads accepted the report and were ready to start negotiations quickly. The brotherhoods more cautiously said that "it could be useful in the search for a fair settlement."

The Role of Labor Cost in Foreign Trade

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JOHN H. CHANDLER*

IN RECENT YEARS, differences in wages, supplementary employee compensation, and other costs of production between the United States and industrial nations have received renewed attention. Such phenomena as the persistent gold outflow, increased U.S. private investment abroad, increased imports of many manufactured goods, and the relatively slow rate of U.S. economic growth have caused observers with a variety of interests to question whether some of these matters do not reflect differences in labor cost between U.S. enterprises and their foreign counterparts.

In such discussions, labor costs have historically tended to be singled out for attention because they are an important part of total cost, because data on hourly labor cost are available in many cases, because these hourly labor cost data show large differences between the United States and foreign countries, and because labor costs can be controlled to some extent by the addition of capital equipment. In addition, they have tended to be singled out because of social considerations that attach to costs which directly affect the well-being of individuals.

Almost since its inception, the Bureau of Labor Statistics has been concerned with international cost and labor expenditure comparisons.¹ The current revival of interest in cost—especially labor cost—comparisons has stimulated the Bureau to examine this area of statistical investigation anew. This has been a particularly difficult field of work because of gaps in and lack of comparability of basic data both within coun-

tries and internationally. It has also been a controversial and contentious field in economic analysis. The present article discusses the relationship of labor cost to foreign trade. A more technical statement of the concepts and the methodological problems involved in making international comparisons appears in the technical note on pages 538–547 of this issue.

Causes of Trade Flows

In examining the relationship between labor cost and foreign trade, the labor research worker is struck by two sets of facts and the seeming contradiction between them. First, total U.S. exports and imports have both risen persistently and strongly in the last decade, and the difference between them, while it has fluctuated, has shown no definite trend, averaging about \$5 billion excess of exports over imports per year. Second, hourly labor cost in U.S. industry is much higher than in any other country, frequently two to four times that of the countries of northern Europe and even higher in relation to Italy and Japan.

Many discussions of comparative costs tend to elaborate on and analyze one of these two facts almost to the exclusion of the other. Many international trade economists argue that the nature of international trade under private enterprise, with relatively little government regulation, guarantees that (1) any country's surplus or deficit in foreign trade will change sharply if its overall costs get far out of line from those of its trading partners and stays that way for long and (2) the absence of such sharp changes means there has been no major change in relative costs. Many industrial economists, on the other hand, argue that American wage rates cannot remain as far above those of other countries as they now are because (1) foreign countries are rapidly expanding and modernizing their plant and equipment to increase productivity in many lines and (2) import competition is having a seriously depressing effect on domestic production in industry after industry in the United States.

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¹ See, for example, *Sixth Annual Report of the Commissioner of Labor, 1890, Cost of Production: Iron, Steel, Coal, etc.*; and *Seventh Annual Report, 1891, Cost of Production: The Textiles and Glass*. These reports were concerned chiefly with aggregate and unit costs of production, employee earnings, "efficiency" of labor, and cost of living in the United States, but included similar data from England and continental Europe, many of which were compiled in detail directly from plant records.

It is not the purpose of the present article to present a complete theory of international trade including the economic theory of comparative cost advantage, but some of the major determinants of international trade must be listed in order to understand the relevance of labor cost and put this paradox in perspective.

1. Much foreign trade flows because of physical and climatic advantages. For example, Malaya and Bolivia export tin, and the United States and Egypt export cotton. While these physical and climatic factors are reflected in labor and other costs to varying degrees, and cost differences influence the proportions of the supply coming from different sources, labor cost is not usually a key question in an analysis of this type of trade.

2. Much trade flows because of new product development, superior design, wider choice concerning specifications, and better quality. When the British developed and produced commercial turboprop aircraft before the United States did, they captured most of the export market for new aircraft until U.S. producers caught up with their designs. Again, labor cost is of limited significance.

3. Other diverse factors that can decisively influence trade flows have little or no direct relationship to producer's cost. One group of factors involves the effectiveness of marketing practices, such as advertising, salesmanship, packaging, promptness of delivery, servicing, and general catering to the preferences and tastes of the foreign consumer. Other factors include political attitudes between countries, preferential trade practices, warranties, financing arrangements, language differences, adequacy of instructions for use of equipment, availability of parts, and maintenance of a full line of related merchandise.

4. Finally, a considerable volume of trade in manufactured goods flows primarily on the basis of cost as reflected in price. For many commodities, costs of international transportation and tariffs are fairly low, and it may not require very large cost differences to cause a considerable volume of trade to flow. It is in these cases that cost differences may be important.

Labor Cost and Total Cost

Labor cost is, of course, only a part of total cost. From the point of view of the individual industry or firm, materials cost, capital cost (both deprecia-

tion and interest), taxes, and other costs are usually greater, frequently much greater, in the aggregate than labor cost. Most data on this point are fragmentary. Comprehensive data are available for some countries on labor cost as a proportion of value added by manufacture (which excludes materials cost but includes profits). Census of manufactures data for three countries show that labor cost is about one-half of value added for most industries in the United States, somewhat less than one-half for most industries in the United Kingdom, and one-third or less for a majority of the industries in Japan. Thus, nonlabor costs are usually larger than labor cost.

From the point of view of the economy as a whole, however, labor is the primary cost factor in production. The relevant figure is compensation of employees as a proportion of gross national product, which, in the manufacturing sector, was 68 percent for the United States in 1960. Thus, the competitiveness of U.S. exports of manufactured goods depends heavily on unit labor cost in manufacturing and mining, but the competitiveness of U.S. exports of, say, furniture does not depend so heavily on unit labor cost in furniture factories. Furniture exports also depend upon unit labor cost in the industries which supply materials for furniture manufacture (lumber, steel, hardware, textiles, etc.) because these costs are reflected in materials prices.

Hourly and Unit Labor Cost

The cost of labor, as of other factors of production, can be expressed per unit of input (e.g., hours worked) or per unit of output (e.g., tons of steel produced). Hourly labor cost data are available for some industries and can be roughly calculated for many industries in many countries from average hourly earnings and estimated supplements. These data are useful for a number of purposes. International comparisons of wage compensation systems and the relative importance of supplementary benefits are one example. Employers who are considering establishment of a plant in a foreign country have an obvious interest in hourly earnings and supplements.

Comparisons of hourly labor cost do not, however, throw much light on cost differences in foreign trade. It is unit labor cost plus other unit costs, such as the cost of materials, power,

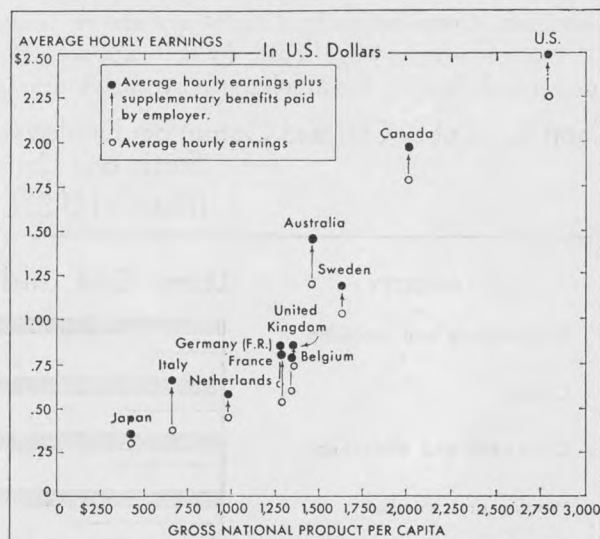
transport, capital, and profit per unit, which add up to the price of a product. The factor relating these two costs is, of course, output per hour of labor input, or labor productivity. It has often been said that employers in one country can afford to pay higher wages than those in another country because of higher labor productivity. For example, if tobacco industry wages in the United States are three times as high as in Great Britain but U.S. output per man-hour is also three times as high as Britain's, the unit labor cost would be the same in the two areas. In practice, this dictum has to be modified if the higher labor productivity is achieved by using relatively larger amounts of the nonlabor items such as materials and capital, since in this case, materials cost and capital cost are substituted for labor cost.

Labor Cost and GNP Per Capita

From an economic standpoint, there is no reason to expect that the average level of hourly labor cost in industry as a whole in different countries should determine the amount or direction of flow of international trade. Because the value of exports and imports of goods and services must be in equilibrium in the long run and different countries have different currencies, the average level of wages, together with the prices of the other factors of production and the level of productivity, tends to determine international exchange rates. That is, in the absence of strict government controls on international transactions, the various currencies of the world are exchanged for each other at rates which tend to equate prices and unit total costs for internationally traded commodities and services. At these exchange rates, each country tends to have a cost advantage in producing and exporting enough goods and services to pay for the imports it demands.

When average hourly earnings in all manufacturing published by the different countries of the world were converted to dollars at international exchange rates, they ranged in 1961 from \$2.32 an hour for the United States and \$1.11 for Sweden, the highest European country, to less than 20 cents an hour for some of the nonindustrial countries. This wide range reflects, in large part, the

Chart 1. Hourly Labor Cost and Gross National Product per Capita, Selected Countries,¹ 1960



¹ For Canada, Germany, and United States, average earnings are per hour paid for; for other countries, per hour worked. Data in national currency converted to U.S. dollars at yearend quotation of commercial exchange rates.

SOURCE: International Monetary Fund, *International Financial Statistics*, April 1963; United Nations, *Monthly Bulletin of Statistics*, March 1963; and Institut National Statistiques Études Économiques, *Étude et Conjonctures*, May 1960.

wide range in overall labor productivity levels among countries. One impressive if rather crude way to show this is a scatter diagram of average earnings in manufacturing and gross national product per capita for different countries. This was done for a congressional committee some years ago.² The diagram presented here as chart 1 shows a similar relationship for the year 1960.

Comparisons for Two Countries

Data on average earnings for the principal manufacturing industries are published in some form by all the leading industrial countries of the free world. By contrast, unit labor cost and labor productivity data are not generally published on a systematic basis, partly because of the technical complexities of relating hours of labor input to the physical output produced. Because hourly labor cost data are more generally available, labor cost comparisons—even in relation to international trade—are often made in terms of hourly labor costs or even hourly earnings in lieu of unit labor cost data. That this can be misleading may be demonstrated by citing the differences in wages, output, and unit labor cost between the

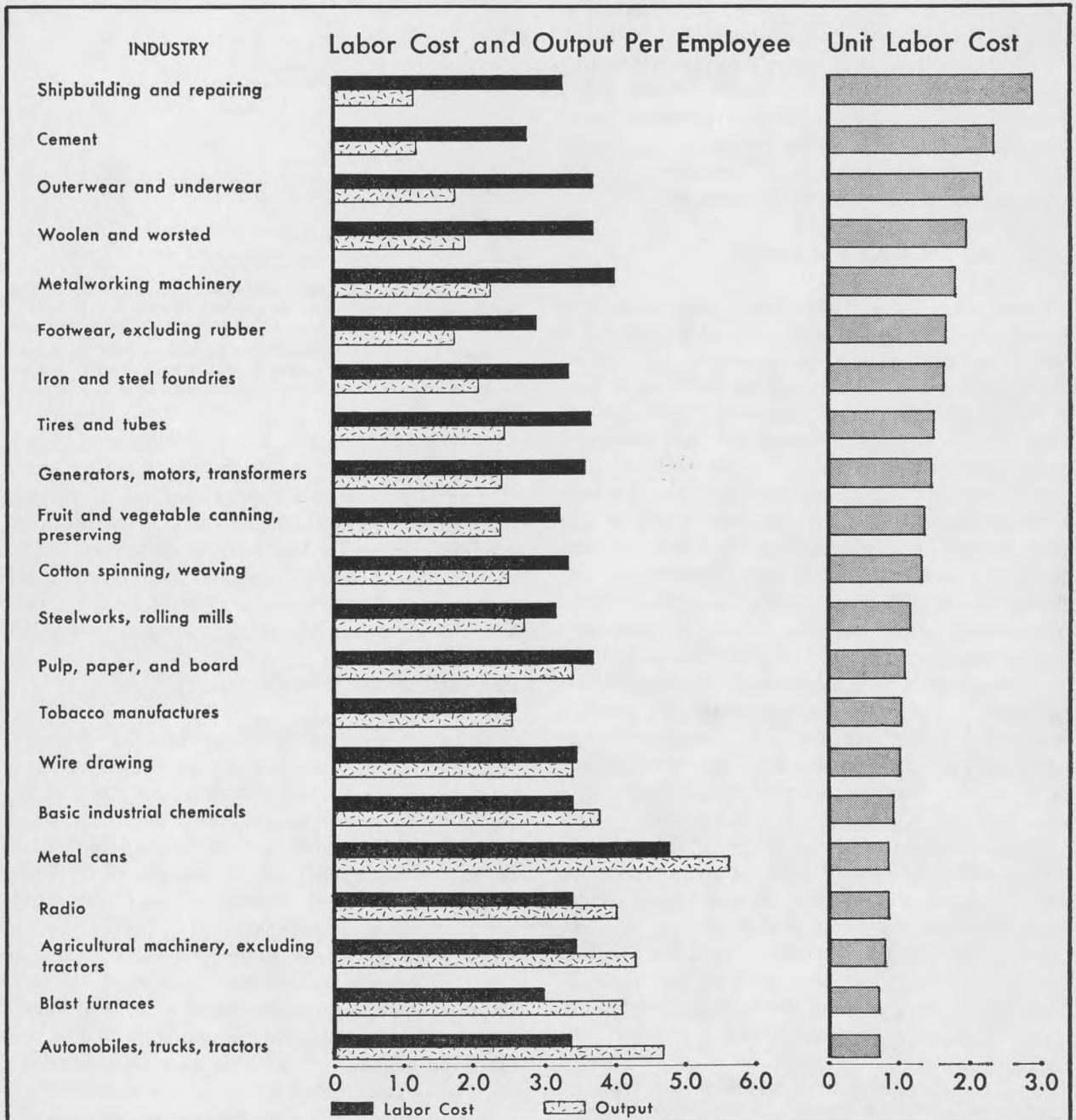
² *A Compendium of Papers on United States Foreign Trade Policy* (U.S. Congress, House Committee on Ways and Means, Subcommittee on Foreign Trade Policy, 84th Cong., 2d sess., 1957).

United States and the United Kingdom, as shown in a study by the Organization for European Economic Cooperation.³ This study shows that in 1950 average wage cost (which apparently corresponds in U.S. terminology to average annual

earnings) in U.S. industries ranged from 2.6 to 4.8 times average U.K. wage cost, but because

³ Deborah Paige and Gottfried Bombach, *A Comparison of National Output and Productivity of the United Kingdom and the United States* (Paris, Organization for European Economic Cooperation, 1959).

Chart 2. Labor Cost and Output per Employee and Unit Labor Cost in Selected Industries, United States and United Kingdom,¹ 1950
[Ratio of U.S. Level to U.K. Level]



¹ Labor cost and unit labor cost for the United Kingdom converted to dollars at the official exchange rate of £1=\$2.80. Original data were annual

totals per employee, with supplements presumably excluded from labor cost. SOURCE: Paige and Bombach, op. cit. (text footnote 3), p. 64.

U.S. output per worker ranged from 1.1 to 5.6 times U.K. output per worker, the unit labor cost in the United States ranged from 0.7 to 2.9 times that of the United Kingdom.⁴ (See chart 2.)

Thus U.S. wages were substantially higher than U.K. wages in every industry for which data were available, but unit labor cost was actually lower in the United States in 6 out of 21 industries. As an extreme example, U.S. employees in the metal can industry received average earnings nearly 5 times the U.K. average; yet the labor productivity difference was even greater, with U.S. productivity amounting to 5.6 times the U.K. level. As a result, unit labor cost in the U.S. industry was 15 percent below the U.K. cost. If comparisons between the United States and Italy or Japan could be made quantitatively, the figures would no doubt be equally or even more striking. Thus, international differences in unit labor costs (that is, differences from unity in the country-to-country ratios) are usually far smaller than differences in hourly labor costs and are sometimes in the opposite direction.

Although both output per employee and average wage cost in each industry were higher in the United States than in the United Kingdom, according to the OEEC study, there was much greater variation among the labor productivity differences than among the wage cost differences. In output per employee, the extreme ratios were 5.6 for metal cans, as mentioned above, and 1.1 for shipbuilding and repairing, a ratio of 5.1 to 1. In wage cost per employee, the extreme ratios were 4.8 for metal cans and 2.6 for tobacco manufactures, a ratio of 1.8 to 1. Studies showing all three measures—hourly labor cost, output per man-hour, and unit labor cost—are not available for other countries, but it is quite easy to make some type of hourly wage cost comparison among all industrial countries of the free world, and this will now be done for a few leading countries by a somewhat different approach.

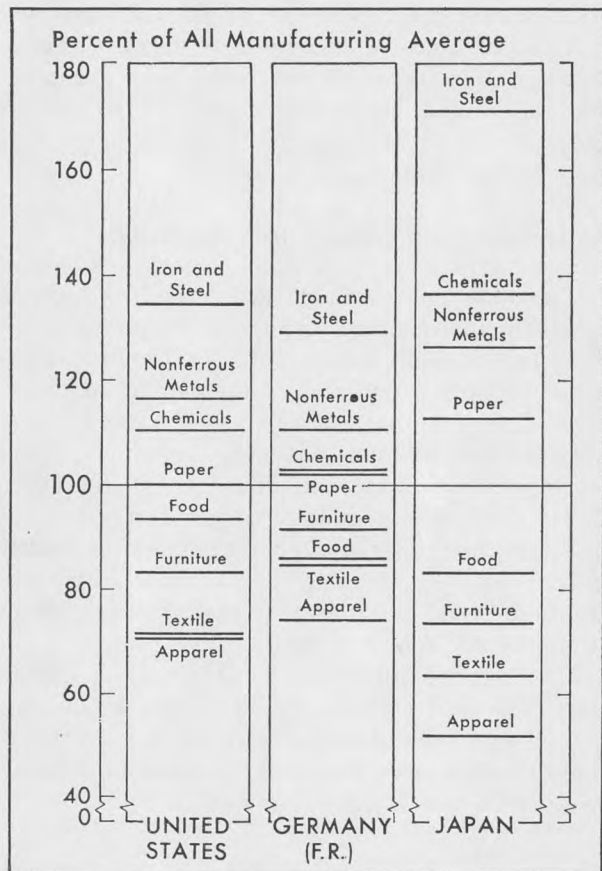
Wage Hierarchy by Industry

Average hourly earnings in different manufacturing industries show remarkably similar

relative positions within the major industrial countries. Chart 3 shows data for eight major industry groups in three countries. The iron and steel industry has the highest worker earnings and apparel the lowest in each country, and the rank order of the other industries is surprisingly uniform, with the heavy industries high and the light industries low. If the comparison is extended to more countries and more detailed industry groups, the uniformity in ranking is less in some cases, but it is nevertheless striking.⁵

The economic and sociological reasons for this uniform hierarchy of wages by industry are not germane to the present discussion. The impor-

Chart 3. Ranking and Range of Average Hourly Earnings¹ in Eight Manufacturing Industries, Three Countries, 1960



¹ For the United States and Germany, average earnings per hour paid for; for Japan, per hour worked.

SOURCE: United States—*Monthly Labor Review*, table C-1, pp. 588-599 of this issue; Germany—Federal Statistical Office, *Statistische Jahrbuch*, 1962, p. 521, International Labor Office, *Year Book of Labor Statistics*, 1962, and European Economic Community, *Information Statistiques*, No. 1/2, 1962; Japan—Ministry of Labor, *Year Book of Labor Statistics*, 1960, pp. 80-115.

⁴ These ratios were calculated for the year 1950 and may, of course, be materially changed in recent years.

⁵ See, for example, Faith M. Williams and Edgar I. Eaton, "Payments for Labor and Foreign Trade," *American Economic Review*, September 1959, pp. 584-601.

tant thing to note is that international trade does not exist primarily because wages in one industry are low in X country while wages in another industry are low in Y country; it exists in spite of a rather high degree of uniformity in the hierarchy of wages by industry in different countries.

No such uniformity exists, however, in the percentage range of wages among industries from country to country. In Germany (Federal Republic), the range of average earnings between industries expressed as percentages of the all-industry average is considerably narrower, whereas in Japan, it is much wider than in the United States. In the United States, the average for the highest paying industry (iron and steel) is 91 percent above the average for the lowest (apparel). In Germany, this spread amounts to 74 percent, whereas in Japan, it amounts to about 230 percent.

This difference in the spread of wages may contribute somewhat to an economic basis for international trade, because it does tend to set up comparative cost advantages, but this factor is of only modest importance.

Intercountry Differences in Productivity

Data are not available at present to make a study of intercountry differences in productivity for each manufacturing industry group comparable to the study of wage hierarchy by industry. The Paige-Bombach study,⁶ other fragmentary results, and indirect evidence, however, suggest strongly that these intercountry differences in labor productivity, industry by industry, are far greater than intercountry differences in hourly labor cost. If so, they are a more important cause of world trade flows in manufactured goods than are differences in hourly labor cost.

The relative importance of differences in output per man-hour and hourly labor cost in international unit labor cost comparisons is a matter of considerable theoretical and practical importance. As careful methodology is applied to the actual

measurement of unit labor cost, by industry, it will be important to estimate labor input at the same time, so that unit labor cost can be broken down into hourly labor cost and output per man-hour.

Conclusion

Regardless of the relative variability and consequent relative importance of hourly labor cost and labor productivity, it is clearly the ratio of these two quantities, namely, unit labor cost, which affects foreign trade flows. The types of data now available on unit labor cost are reviewed in the technical note on pages 538-547. At best, existing data are fragments of what is needed. Final statistical answers to the questions raised at the beginning of this article must await the compilation of more systematic data.

It is quite clear, however, that hourly labor cost in the United States is much higher than in other industrial countries. In some cases, this higher hourly cost seems to be fully offset or more than offset by higher productivity; while in other cases, it is partly, though not fully, offset. In many of the latter cases, U.S. prices are nevertheless competitive in world markets, in some cases reflecting lower nonlabor costs or profit per unit of output.

It also seems to be true that labor productivity in other industrial countries has risen more rapidly than in the United States during the last decade. Summary analysis shows that hourly labor cost in most of these countries has also risen more rapidly than in the United States.⁷ Unit labor cost in this country seems not to have risen more rapidly in this period than in the average of the industrial countries with which the United States competes in international trade.

These generalizations are significant, but on such an important subject, greater precision and far greater detail are needed. More and better information on hourly labor cost and output per man-hour can serve important purposes. For purposes of international trade, however, the need is for better quality data comparing unit labor cost by industry in the United States and foreign countries both in absolute terms and in the form of time series.

⁶ See footnote 3.

⁷ Philip Arnow, *Foreign Labor Information: Foreign Trade and Collective Bargaining* (Bureau of Labor Statistics, 1960), and Hal B. Lary, *Problems of the United States as World Trader and Banker* (Princeton, N.J., Princeton University Press, 1963), table 12, pp. 67-68.

Union Disciplinary Powers and Procedures

EDITOR'S NOTE.—*This is the last of four articles based on Disciplinary Powers and Procedures in Union Constitutions (BLS Bulletin 1350), which will be published in the spring of this year. The preceding articles, in the February, March, and April issues (pp. 125-132, 255-261, and 378-384), covered grounds for trial of members and local officers, trial powers and procedures at the local level, and rights of the accused. The bulletin also covers summary discipline, trials at the international level, and discipline of international officers, as well as the topics discussed in the four articles.*

IV. Influence of the LMRDA on Constitutional Discipline Provisions

DAVID A. SWANKIN*

TO DETERMINE what changes had taken place since the signing of the Labor-Management Reporting and Disclosure Act¹ on September 14, 1959, the present study included an analysis of the constitutions of 70 national and international unions which held conventions between that date and late 1961.² Of the 70 unions studied, 55, covering over 9 million members, had amended one or more of their constitutional provisions relating to disciplining officers or members.³ The remaining 15 had not amended their constitutions in this area. In several of these constitutions, the disciplinary provisions appeared to contain most, if not all, of the safeguards and guarantees introduced by other unions to conform to the requirements of the 1959 act.

The nature of the constitutional amendments varied in both substance and degree. In some cases, for example, the changes involved a sentence or two clarifying existing procedural provisions; in others, detailed substantive changes were adopted. A general saving clause was added in a few instances; for example, the Papermakers

adopted the following provision at their 1960 convention:

In the event any provision of this constitution shall hereafter be determined to be inconsistent with the provisions of title I or title IV of the Labor-Management Reporting and Disclosure Act of 1959, the International Executive Board may thereupon cease giving effect to such provisions and may adopt a substitute provision pending action by the next regular or special convention of the international union.

Except where an amendment, as in the foregoing clause, specifically mentioned the Labor-Management Reporting and Disclosure Act, it cannot be inferred that all amendments in discipline

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¹ 73 Stat. 519.

² The 70 unions were not the only ones among the 158 included in the overall study that held constitutional conventions between the passage of the LMRDA and the time of the survey. At least 45 additional unions were known to have held conventions, but their constitutions were not available at the time this analysis was completed.

The dates of the constitutions used in the analysis are given in an appendix to BLS Bulletin 1350.

³ This study was limited to constitutions of national and international unions. The act is also applicable to subordinate bodies and their constitutions and bylaws.

procedures were adopted directly as a result of the act.⁴ This assumption is more strongly supported in some cases than in others. For instance, there is little reason to doubt that the act was primarily, if not entirely, responsible for the adoption by some unions of a 4-month exhaustion-of-remedies provision. The cause and effect relationship is less certain, however, with regard to an amendment adding, for example, a requirement that witnesses testify under oath.

Few generalizations can be drawn as to the nature of the amendments. Changes relating to grounds for discipline, due process, and removal of officers were prevalent, but no specific issue was predominant. It can be said with certainty, however, that the act provided a strong stimulus for unions to review the disciplinary provisions of their constitutions, in some unions for the first time in many years. The overall result has been a trend toward more formalized union disciplinary procedures within a framework of broad guarantees and prohibitions.

Applicable Provisions of the Law

At least 14 provisions of the act directly or indirectly relate to the disciplinary process as conceived in this study. These are cited briefly in this section.⁵

Section 201(a) requires every labor organization to adopt a constitution and bylaws, and subsections 5(H) and 5(I) of this section require these organizations to file reports with the Secretary of Labor indicating their disciplinary procedures.

Title I, entitled "Bill of Rights of Members of Labor Organizations," has five relevant sections. The first, section 101(a)(1), assures each member equal rights in participating in union affairs and elections. Section 101(a)(2), the so-called "free speech" provision, guaranteeing members the right to participate in union meetings and express views on candidates, may affect union constitutional provisions which make union loyalty violations a ground for discipline. Section 101(a)(4), in protecting the right to sue, bears directly upon union constitutional provisions which call for the suspension, expulsion, or fining of any member who resorts to a civil court before exhausting the internal remedies of the union. A fourth section, 101(a)(5), focuses directly on disciplinary pro-

cedures and encompasses the entire due process area. Any constitutional provision which violates or is inconsistent with these requirements (as well as with any of the title I requirements) is declared inoperative under section 101(b).

Title IV, which deals with union elections, contains five relevant sections. Electioneering as a ground for discipline has been somewhat circumscribed by section 401(c), which guarantees members who are candidates for union office the right to distribute campaign literature; assurances regarding the right to vote and participate in election campaigns are set forth in section 401(e). Section 401(h), providing for the removal of officers guilty of serious misconduct, by vote of the membership in cases where the constitution and bylaws of the union provide no adequate removal procedure, will probably have its greatest impact after the Secretary of Labor promulgates minimum standards as to what constitutes adequate procedures, as provided in section 401(i).⁶ Section 402(a) applies a 3-month exhaustion-of-remedies time limit to title IV, thereby affecting this aspect of union due process provisions.

Title V, section 504 prohibits persons who are or have been members of the Communist Party, or who have been convicted of specified major crimes, from holding union office for a 5-year period.

Section 609 prohibits the disciplining of members for exercising any right to which they are entitled under the act, and thereby serves as an overall check on grounds for discipline under

⁴ In a number of cases, although the amendments did not refer to the act, convention proceedings and statements in union newspapers or other union periodicals left no doubt as to the reason for the change. For instance, the amendments to the Machinists constitution were prefaced with the statement that "these amendments represent changes in our constitution so as to conform to the requirements of the Landrum-Griffin Act." (See preamble to the resolution containing constitutional amendments presented to the 25th Convention, September 1960.)

It must be emphasized in this regard that union statements that amendments "are required by the act," etc., do not necessarily reflect official Government interpretation, executive or judicial, of the act's requirements. Recognition of the lack of official endorsement is implicit in some union statements, as, for example, the following issued by the Marble, Slate, and Stone Polishers:

"... our General Executive Council . . . following review of the pertinent sections of our constitution and upon advice of our attorney, have concluded that the changes, alterations, amendments, and deletions noted herein will satisfy the requirements of the law with respect to our constitution."

⁵ For information on the intent and scope of the law's provisions, see "Summary of the Labor-Management Reporting and Disclosure Act," *Monthly Labor Review*, October 1959, pp. 1110-1113.

⁶ Proposed procedures for the removal of union officers were published by the Secretary of Labor in the *Federal Register*, November 7, 1962.

union constitutions. Finally, section 610 makes it a Federal crime to use force or violence, or the threat thereof, to interfere with the exercise of rights of members provided by the act.

Amendments to Union Constitutions

Protection of the Right to Sue. The "protection of the right to sue" provision of the law, section 101(a)(4), seems to have had a clear effect upon union constitutions. Fifteen of the constitutions studied, covering more than 2 million members, had changes designed to conform with this provision.

One method was to enact an interpretation clause, as in the case of the Laundry Workers (Ind.):

These bylaws shall not be construed as requiring any member . . . to exhaust his remedies for a period more than 4 months after the date of service of charges.

A second approach was to withhold sanctions if internal remedies were pursued for a 4-month period without a final decision. For example, the constitution of the Granite Cutters, prior to the 1959 law, contained the following provision:

No officer or member of the association or any local branch shall resort to court proceedings of any description in any matter pertaining to this organization, its local branches, or its membership until all remedies provided for within the international constitution and the local branch laws have been fully exhausted.

Constitutional amendments in 1960 retained this clause, but added the following proviso:

Provided that a member or officer shall not be subject to any charges hereunder if he has exhausted his remedies for a period not to exceed 4 months.

The indirect effect of the two provisions just cited was to make final the decision taken at whatever stage of the disciplinary procedure had been completed within 4 months.

In a third type of provision, the level of final decision was dealt with directly. The Lathers constitution, for example, contained the following provision before the 1959 act:

The appellate body, whether it be the general president and/or the Executive Council and/or the convention of the [international], shall have the power to affirm, reverse, modify, or amend any decision or to render such a new decision or penalty as it, the appellate body, believes to be fair and just.

Following enactment of the Labor-Management Reporting and Disclosure Act, the Executive Council issued the following rule regarding the interpretation and application of the above provision:

If an appeal has not or cannot be heard or acted upon by the convention of the [international] within the 4-month period referred to and described in title I, section 101(a)(4) of the Labor-Management Reporting and Disclosure Act of 1959, then, if litigated by the member or members involved, the decision of the appellate body which last heard and decided the matter shall be considered as the final appellate decision on the merits of the question or matter involved.

Finally, some unions adopted a general savings clause, as, for example, the Firemen and Oilers:

Consistent with existing law, no member shall appeal to the civil courts for redress until after exhausting all rights of appeal provided in this constitution.

Some unions that did not amend their constitutions in this area may have changed their procedures by administrative action. The following excerpt from a letter to local unions of the Marble Polishers, for example, outlined a new policy for expediting appellate hearings.

. . . In order to comply with the intent of the law it shall be our policy that, where appeals are taken timely and within the provisions of our constitution, the general president secretary-treasurer may, within his discretion, call a special meeting of the General Executive Council for the purpose of hearing or deciding any appeal within prescribed statutory period. It will not be necessary, therefore, to amend, change, or alter the present provisions of our constitution. (Circular letter from general president to all local unions, dated Feb. 26, 1960.)

Right to a Fair Trial. A number of constitutional amendments could be traced to the specific requirements of subsections A, B, and C of section 101(a)(5). In some, amendments took the form of incorporating the language of section 101(a)(5). This was true of unions which already had extensive hearing provisions, such as the Typographers, as well as those which previously had few details, such as the Cigar Makers.

Fifteen unions adopted amendments to their constitutions that fell within the scope of the 101(a)(5)(A) requirement that members be furnished with written specific charges. Of these, 12 were concerned with the specificity of the charges (at either the local or international level, or both).

Five of the 12, as well as 3 others, dealt with the medium for notifying the accused.

Most of the 12 constitutional changes concerning specificity of charges stiffened existing requirements. For instance, the Street, Electric Railway and Motor Coach Employees' union made the following changes in its constitution in late September 1959:

When any charge or charges are preferred against any member or members, such charge or charges shall be in writing *and shall be specific*. [Italicized words added by amendment.]

In other unions, the amendments were more detailed. For example, in 1960 the Operating Engineers made the following change:

All changes must be preferred in writing, signed by the complainant and filed with the recording-corresponding secretary. . . . *charges shall be specific, stating clearly, concisely and as accurately as possible the time, place, nature, and circumstances of the offense alleged*. [Italicized words added by amendment.]

Section 101(a)(5)(A) requires not only "specific charges," but also that these charges be "served" on the accused. Most of the unions making changes in this area required that charges be served in person or by registered mail. Formerly, most of these constitutions either contained no specific requirements for service or merely stated that the accused must be "notified." There were varying interpretations between unions as to how best to implement the "service" requirements of the act. For instance, the Commercial Telegraphers constitution formerly provided:

When such charges are preferred against any member, the president or general chairman of the division shall within 10 days mail a copy of such charges to the accused member.

However, in 1959, after passage of the act, the requirement that a copy of the charges be mailed was dropped, and the words "shall furnish the accused with a copy of the charges" were substituted. On the other hand, although the Boilermakers constitution formerly allowed service either by personal delivery or by registered or certified mail, since 1961, the constitution provides only for service by registered or certified mail.

Eighteen unions adopted amendments which reflected the 101(a)(5)(B) requirement that an accused member be "given a reasonable time to

prepare his defense." There was a difference of opinion, however, as to what constituted a reasonable time, as the following tabulation indicates:

Unions	Days ¹
1-----	5.
2-----	7.
5-----	10.
1-----	14.
3-----	15.
1-----	20.
2-----	30.
2-----	"A reasonable time."
1-----	"A reasonable time, but in no event less than 10 days."

¹ Where different time limits were specified for the local and international trial levels, the local level provision is given.

Eight of these constitutions already had designated specific periods of time for the preparation of the accused's defense, and in each instance the period was increased.

The two unions which specified "a reasonable time" previously contained no reference on this matter. On the other hand, two unions which formerly specified "a reasonable time," changed their constitutions by specifying the number of days. For example, the Commercial Telegraphers formerly specified a "reasonable time, not to exceed 30 days," but since 1959, the constitution provides that "30 days shall be allowed [the accused] in which to furnish a defense."

The third requirement in section 101(a)(5), namely, that an accused be "(C) afforded a full and fair hearing," was also reflected in conforming constitutional amendments. Thirteen unions incorporated the term "full and fair hearing" into their constitutions; 10 applicable to trials at the local level, 1 at the international level, and 2 at both trial levels. In some of these constitutions, such as that of the Typographers, the full and fair hearing requirement was superimposed on a number of existing specific safeguards, such as the right to introduce evidence, to testify, and to require witnesses to testify under oath. On other constitutions, such as the Cigar Makers, there had been few, if any, specific safeguards.

In 12 other unions, where the term "full and fair hearing" was not incorporated, a variety of hearing safeguards were added. For example, the Allied Industrial Workers amended its constitution by providing a number of due process guarantees, namely, the right to introduce evidence,

to testify, to invite witnesses, and to cross-examine witnesses.

Two of the unions adding a full and fair hearing clause, as well as two others, also adopted specific provisions to assure an impartial trial board. By far the most detailed of these was that of the Masters, Mates and Pilots, adopted in 1960, which stipulated two sets of rules for the selection of a trial body, depending on the presence or absence of the accused.

Summary Discipline. In addition to the positive requirements of section 101(a)(5), the overall effect of the section, it would seem, is to prohibit or sharply limit summary discipline of members for reasons other than nonpayment of dues.⁷

Twenty of the constitutions studied were amended to abolish some or all forms of summary discipline. The Furniture Workers, Boilermakers, and Railway Carmen abolished summary discipline entirely. The constitution of the Printing Pressmen was amended to abolish summary discipline of members for reasons other than nonpayment of dues by the addition, in 1961, of the following section:

Notwithstanding any other article or section of this constitution, any provision thereof which provides for the imposition against an individual member of any penalty, forfeiture, suspension, expulsion, revocation, or any other disciplinary action, is hereby amended to require the filing and service of written charges against any member of a subordinate union charged with a violation of any article or section of this constitution and laws, except nonpayment of dues, a reasonable opportunity for such member or subordinate union to prepare a defense which is defined as not less than 15 days following the service of said written charges and a hearing thereon before an impartial trial board constituted in accordance with this constitution and laws"

Other unions abolished summary discipline for certain offenses. For instance, the Auto Workers

⁷ The legislative history indicates that the 101(a)(5) requirements are applicable only to members, and not to officers, in the following language: "In paragraph (5), relating to safeguards against improper disciplinary action, it should be noted that the prohibition on suspension without observing certain safeguards applies only to suspension of membership in the union; does not refer to suspension of a member's status as an officer in the union." (H.R. Rep. 1147, 86th Cong., 1st sess., 1959.)

Some observers have questioned whether this section prohibits *all* summary discipline of members. For example, Edward Joseph Hickey, Jr., has said: "On its face, section 101(a)(5) of the act would prohibit summary action of any kind, but possible correlation of its provisions with the right of a union under section 101(a)(2) not only to adopt reasonable rules as to a member's responsibility to his union as an institution but also to 'enforce' such rules, may save the provision in section 101(a)(5) from this unrealistic application." (See "The Bill of Rights of Union Members," *Georgetown Law Journal*, Winter 1959, p. 236.)

and Masters, Mates and Pilots constitutions no longer permit summary discipline for resort to court, while those charged with dual unionism may no longer be punished summarily under the constitution of the Hotel and Restaurant Employees. On the other hand, the Potters appeared to have added summary discipline for resort to court, by adopting the following amendment, effective July 1, 1960:

Any member or members . . . attempting to, or actually resorting to court action in an attempt to redress an actual, or so-called grievance against any member . . . or an act of the convention or any authorized agent or agents thereto, without first exhausting every possible effort to redress the grievance under the . . . constitution, shall be considered as a (sic) violation of the constitution [and dealt with under appropriate laws of the International Brotherhood of Potters] *and suspended by the Executive Board.* [Bracketed words deleted; italicized words added by amendment.]

A third group of unions, which included the Clothing Workers, Communications Workers, and Bricklayers, amended their constitutional provisions relating to summary discipline for nonpayment of dues to conform to the 1959 law. The nature of these amendments was to limit summary discipline strictly to the nonpayment of dues, as against nonpayment of fines and assessments. Thus, for example, the Communications Workers in 1960 made the following change in its constitution:

A member in default, without good cause, in the payment of any installment of dues [or any fine or assessment] for 60 days from the day such amount becomes due, shall be automatically suspended . . . [Bracketed words deleted by amendment.]

Some of the summary discipline amendments provided protections beyond the requirements of the 1959 law. For example, the Clothing Workers not only limited their summary discipline provision to nonpayment of dues or assessments, but also further specified that even nonpayment of dues would not result in summary discipline if the member "is unemployed because of a plant shutdown, inability to obtain work, or illness." The chairman of the Committee on Law and Constitution reported to the Clothing Workers 1960 convention that the foregoing amendment "affords our members greater protection than that required by law." In other unions, protections that appeared to go beyond the requirements of the law were in the form of deleting summary discipline

for officers.⁸ For example, in 1960, the Railroad Trainmen amended the provision of its constitution dealing with the duties of the international president, as follows:

He shall *not* have power to suspend or remove any subordinate lodge officer or *committee or board member except when they are charged with violation of the constitution or of their obligation as an officer, and not then until said officer or committee or board member shall have had a fair trial in his own lodge.* [Italicized words added by amendment.]

Although numerous other changes in discipline provisions were made in union constitutions, they followed no particular pattern. In 1960 constitutions, changes were noted that were obviously the result of the 1959 law. For instance, in 1960, the Operating Engineers adopted the following amendment:

. . . Any . . . member publishing or circulating literature of a defamatory nature *in violation of his responsibility toward the international union or any of its subordinate bodies as an institution . . .* may be disciplined [Italicized words added by amendment.]

It will be noted that this new language "responsibility . . . toward the [organization] as an institution" is drawn from the "free speech" provision of the 1959 act, section 101(a) (2). The Marble, Slate and Stone Polishers constitution was also amended to conform to the free speech provision, in the following manner:

No . . . officer . . . or member . . . shall send out or publish any circulars, letters, writings, or printed matter of any kind or give out any interviews for general distribu-

tion, either privately or publicly, villifying or impugning the honesty or character of any officer or member . . . [without first submitting such circulars, letters, writings, printed matter, or interviews to the General Executive Council and securing its consent and approval thereto . . .] [Bracketed words deleted by amendment.]

Other Changes. In some constitutions, amendments could not be explained by specific requirements of the LMRDA. On a number of subjects, moreover, the direction of the changes differed among unions. For instance, with regard to whether a decision is stayed pending an appeal, seven unions adopted new provisions authorizing the appeal body to stay the decision at its discretion, while three unions adopted provisions prohibiting a stay. To indicate the divergence further, with regard to five constitutions that previously had no provision concerning the status of an accused during appeal, two adopted "no stay" provisions, two adopted "automatic stay" provisions, and one adopted an "optional stay" provision.

Lack of uniformity was also noted in other areas. For instance, the Airline Dispatchers adopted a provision requiring charges to be filed within a year of the date of the alleged offense; the Seafarers, on the other hand, dropped a provision which called for charges to be filed within 90 days from the date "the grievance arose."

⁸ Section 101(a) (5) applies to members only. See footnote 7.

Special Labor Force Reports

EDITOR'S NOTE.—*The following three articles are parts of a series of reports on special labor force subjects. Other articles in the series have covered such subjects as employment of high school graduates and dropouts, work experience of the population, marital and family characteristics of workers, and projections of the labor force. Reprints of all articles in the series, including in most cases additional detailed tables and explanatory notes, are available upon request to the Bureau or to any of its regional offices (listed on the inside cover of this issue).*

Labor Force and Employment, 1960-62

JANE L. MEREDITH*

DEVELOPMENTS IN THE LABOR FORCE and employment during the early 1960's largely represented a continuation of trends which have characterized the entire period since World War II. Adult women, many of whom choose to work part time, continued to account for most of the growth in the labor force, while the participation of older men and teenagers in the work force was still declining. The expanding service-producing industries continued to absorb most of the labor force growth among women, mainly by providing a growing number of white-collar jobs.

Overall growth in the labor force slackened somewhat in the fall of 1961 and continued to increase rather slowly during 1962. The annual average increase in the work force between 1961 and 1962 was 700,000. This was somewhat less than expected on the basis of long-term trends, but projections of the labor force provide an estimate of the general magnitude of long-term growth rather than precise year-to-year changes. The yearly gain from 1947 to 1960 had averaged about 850,000 and an additional increase was expected from the rapid expansion in the population reaching working age and further advances in the participation of women.¹ During the past 2 years, however, there have been indications that

women in the middle-age groups were entering the labor market in fewer numbers, and that white-collar employment was not increasing as rapidly as in earlier years.

These recent developments may not have much long-range significance, since uneven year-to-year change has been part of the pattern of labor force expansion during the last 15 years, but they have prompted increased interest in the labor force and the problem of its growth. This article discusses some aspects of growth and decline in employment and in various sectors of the labor force during the past few years.²

Sources of Labor Force Growth

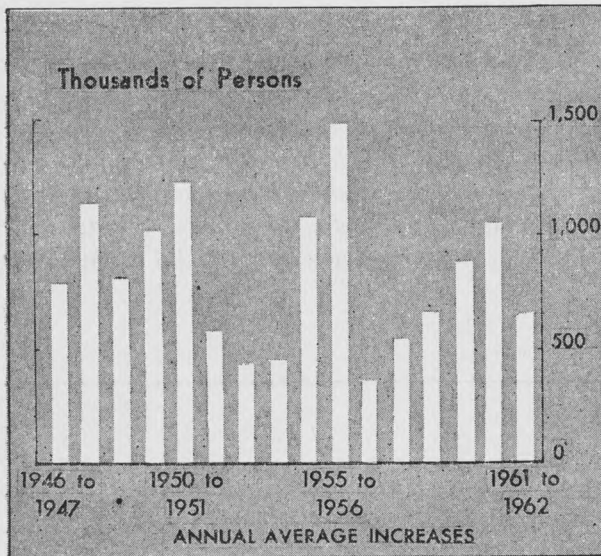
The postwar period has been marked by a general decline in labor force participation among boys and older men, together with the entry of more adult women into the labor market. The labor force has increased along with the increase in population, but its growth during the past 15 years has not been at a steady pace. Wide

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¹ For projections of the labor force to 1975 and an analysis of longrun developments, see "Interim Revised Projections of U.S. Labor Force, 1965-75," *Monthly Labor Review*, October 1962, pp. 1089-1099, reprinted as Special Labor Force Report No. 24.

² This article, unlike the three previous annual reports in this series, does not include a comprehensive description of employment and unemployment developments during the latest calendar year. An extensive discussion of those developments was contained in the December 1962 *Monthly Report on the Labor Force* and the January 1963 issue of *Employment and Earnings*. Earlier reports were published in the following issues of the *Review*: May 1960, pp. 491-500; April 1961, pp. 344-354; and June 1962, pp. 621-634. With additional tables, these were published, respectively, as Special Labor Force Reports Nos. 4, 14, and 23.

Chart 1. Annual Average Increases in the Total Labor Force, 1947-62¹



¹ Changes adjusted to allow for introduction of 1950 population data in 1953; inclusion of data for Alaska and Hawaii in 1960, and 1960 population data in 1962.

year-to-year fluctuations in the rate of growth have characterized the whole period. The average annual increase from 1947 to 1962 amounted to 850,000, but over-the-year growth in the labor force during 1955-56 averaged 1.5 million, and in some years, e.g., 1954 and 1957, the yearly increase was as little as 400,000 (chart 1).

The labor force has continued to grow at a very uneven pace so far during the 1960's. On the basis of long-term trends, its expansion during these years would have amounted to a little better than 1 million a year, with the worker rates for adult women continuing upward. The labor force did register very large over-the-year increases in early 1961; however, the data for both the first quarter of 1960 and the first quarter of 1961 were affected by an unusually large amount of sampling variability. During the next few months of 1961, over-the-year labor force growth (about a million) was in line with long-range trends; however, from the fourth quarter of 1961 through the second quarter of 1962,³ it dropped to an average of only 400,000 above the level of a year earlier. A pickup later in the year brought the average gain for 1962 as a whole up to 700,000, compared with an annual increase of over 1 million for 1961. During the last 2 years, the general slowdown in labor force growth reflected especially large drops

in worker rates for teenage boys and older men as well as a slowdown in the reentry of adult women into the labor market.⁴

Teenage Boys. Labor force participation of teenage boys dropped sharply during the 1960-61 business downturn, from 47 percent in the spring of 1960 to about 43 percent in early 1961 (seasonally adjusted). The rate then leveled off and at the close of 1962 was about the same as a year earlier. (See chart 2.)

Throughout the postwar period, labor force activity of these youngsters was related to the general level of business activity more closely than that of other groups. Although their worker rate has been falling generally throughout the postwar period, the downtrend was accentuated during periods of declining business activity, as in 1954, 1958, and 1960. Moreover, the 1960-61 recession affected teenage employment somewhat more severely than did previous downturns.

Older Men. The decline in the worker rate for men past 65 was also accentuated during 1961 and 1962. Although this was a period of relatively high unemployment, the work status of older men has not been too closely associated with the state of the economy in the past. For example, rapid declines occurred in prosperous periods, such as 1951-52 and mid-1956 to mid-1957, and again when business turned down in 1958. Worker rates for men between 60 and 64 showed the impact of the 1961 social security legislation, which lowered the minimum retirement age from 65 to 62. The worker rate for these men dropped

³ These comparisons take account of the downward effect of revised population data on labor force estimates. Figures for periods prior to April 1962 are not strictly comparable with current data because of the introduction of 1960 Census data into the estimation procedure. The change primarily affected the labor force and employment totals, which were reduced by about 200,000 each. The unemployment totals were virtually unchanged.

⁴ Groups whose labor force rates are changing are the ones most difficult to measure in the short run. Adult women, teenagers, and older men typically have the largest month-to-month fluctuations in worker rates. Such variable and temporary factors as weather, holidays, and the timing of school openings and closings may have a marked effect on their rates in a particular month. Response error is also more of a factor for these groups simply because their work patterns are more variable. Gross change data suggest the magnitude of the measurement problem. During their period of publication, they showed that teenagers had a 20-percent labor force turnover rate (average of entrants and withdrawals between one month and the next as percent of level in the base period), while turnover among women and older men approximated 8 to 10 percent.

Month-to-month changes are also difficult to interpret because of the large absolute sampling error associated with so large an estimate. In addition, the rotation group system used in the household survey produces certain short-term variations which tend to cancel each other out over time, but which complicate cyclical and other short-run analyses.

from 82 percent in mid-1961 to 80 percent by the end of 1962.

Men 20 to 54 Years of Age. Almost all men in the prime working years—between 25 and 54—are permanent members of the work force. Worker rates for these men remained at 97 percent in 1962, as they have for the past 15 years regardless of the level of economic activity. Both financial responsibilities and social customs make gainful employment the central activity for most adult men; those who lose jobs during business downturns typically look for other work rather than leave the labor force. The small proportion not in the work force are mainly those unable to work because of long-term illness and seasonal workers not looking for work during the off-season in their industry.

Worker rates for young men between 20 and 24 were just under 90 percent in 1962. Their labor force participation had declined during the mid-1950's, but has shown only small reductions since 1958.

Adult Women. The projected increase in labor force participation among adult women did not materialize in 1962. Only those aged 55 to 64 showed an annual increase consistent with long-range trends. The participation rate for women between 35 and 44 showed no significant change for the year as a whole. Worker rates for women 45-54 also remained about the same; in earlier years, there had been large increases in their rates. Participation rates for women 65 and over actually declined. These last two groups combined accounted for about half the deficit in the expected labor force expansion between 1961 and 1962.

However, such interruptions in the upward trend are not unprecedented. Worker rates for women aged 25-44 have shown no marked up-trend since the 1955-56 period of exceptional labor force growth. Studies of family formation patterns indicate that the proportion of women age 25 to 34 having young children is somewhat larger than previously, so that little increase in labor force activity can be expected in this group for the next few years.

The deviation from trend among older women is somewhat more difficult to interpret. Labor force participation of women 45 to 54 years old

has not increased materially since mid-1960, fluctuating around the 50-percent mark. This slowdown follows a 6-year period of rapid increase

Chart 2. Labor Force Participation Rates, by Age and Sex, 1947-62
[Seasonally Adjusted Quarterly Averages]

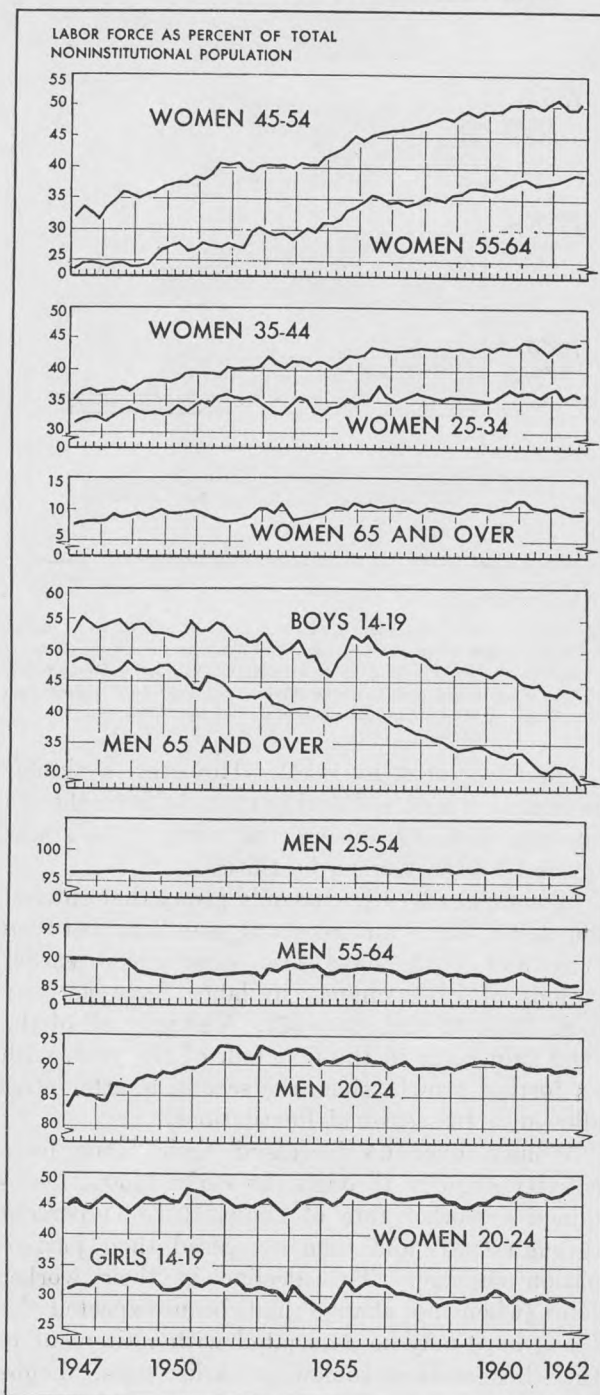
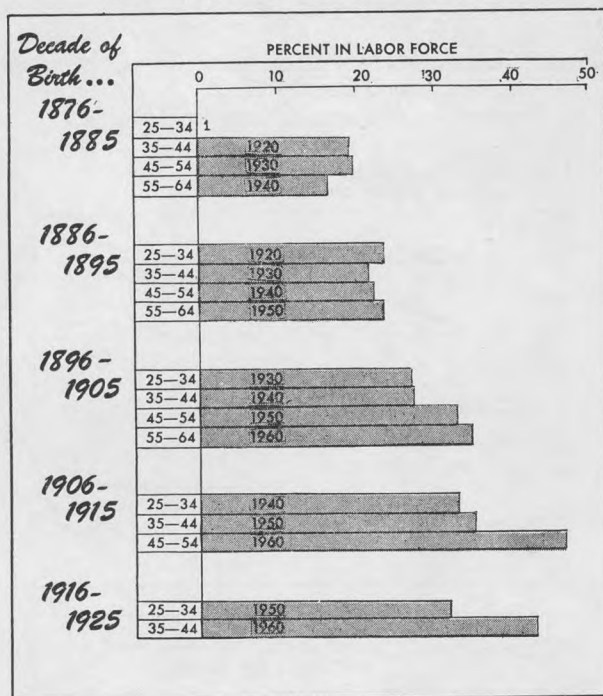


Chart 3. Labor Force Participation Rates of Women Born in Specified Decades, by Age



¹ Not available.

Source: Decennial census levels 1920-60. Data for 1920-50, as published by Gertrude Bancroft in *The American Labor Force: Its Growth and Changing Composition* (New York, John Wiley & Sons, Inc., 1958), table D-1a, p. 207; for 1960, *Employment Status, Weeks Worked, and Year Last Worked: 1960* (U.S. Bureau of the Census), Supplementary Reports PC(S1)-35.

(from 40 percent in 1954). However, a similar interruption occurred during 1951-54, even though business activity during the early 1950's was spurred by the Korean hostilities.

Women age 55-64—the only group that entered the labor force in expected numbers between 1961 and 1962—have also experienced earlier periods of little change in labor force activity (e.g., 1950-51 and 1956-57). Virtually all of the 1962 gain came in the first half of the year, with no further growth since the second quarter after allowance for seasonal fluctuations.

Women over 65 increased their labor force activity slightly through the early 1950's, maintained a worker rate of about 10 to 11 percent through 1961, and then decreased their participation slightly. This decline in their worker rate (when no change had been expected for this group) may be associated with retirement of their husbands at somewhat earlier ages. Legislation enacted in mid-1961 which provided a 10-

percent increase in social security benefits to widows, as well as higher minimum benefits for retired workers, may also be a factor. It is too early to tell whether recent developments represent a change in trend or a temporary plateau.

In summary, while worker rates for women have risen markedly during the postwar period, the amount of increase has fluctuated substantially from year to year. Moreover, these fluctuations have shown no consistent relationship with the business cycle. In fact, during previous recessions, such as 1948-49 and 1957-58, women in older age groups showed very substantial increases in labor force participation. In addition, the timing of these fluctuations has varied among different age groups, suggesting that whatever factors determine labor force status do not influence all groups simultaneously or to the same extent.

Although the focus of this article is on short-term variations in labor force behavior, an attempt was also made to determine whether any of the long-term factors that influence women's entry into the labor market might be changing in the 1960's. For this purpose, data were compiled on the possible relationship between the extent of women's work activity in the early years of their working life and the extent of their labor force participation in middle age. While this relationship may not have been an important determinant of specific developments during 1960-62, the data do suggest that the way in which potential labor force members reacted to a change in the opportunity to work at any given time was influenced by the pattern of their earlier work activity.

The sharp labor force expansion during World War II and the subsequent increase in labor force activity among women is an example of the influence of previous work experience on later labor force participation. From 1940 to 1945, large numbers of women were drawn into the labor force who might never have worked at all had not their plans for marriage and child-raising been postponed by the war, or an unusually large number of jobs at attractive wages become available. The women who participated in the unusual labor market activity of the war years have had substantially higher rates of labor force participation throughout the rest of their working lives than their older sisters had shown at comparable ages. Worker rates for women who were already 45 to 54 years old in 1940 were not very much higher

than those for the cohort 10 years older at comparable ages; they remained under 25 percent from decade to decade during their working lives (chart 3). In contrast, women who were between 25 and 44 in 1940 made dramatic gains in their labor force activity through their subsequent working years. About 28 percent of those between 35 and 44 were in the work force in 1940; 33 percent of these same women were members of the labor force in 1950, when they were 45 to 54 years old. These women whose children had already reached school age when World War II began were able to respond fairly quickly to increased labor demand and to maintain their higher rate of labor force activity in the immediate postwar years.

Worker rates for women between 25 and 34 in 1940 were already higher at the outset of their working lives than were those for older cohorts at the same ages. However, World War II brought delays in marriages and child-raising to this group and their worker rate in 1950 remained about the same as in 1940—35 percent. The sharp increase in their worker rate was only postponed; it rose to nearly 47 percent in 1960, when the cohort reached ages 45 to 54.

The youngest labor force members (those under 25 in 1940) showed almost the same rate of work activity (about 32 percent) at age 25 to 34 as their older sisters had at that age, despite the fact that a great many more of them were married. This group experienced a more typical pattern of family formation, and by the time they reached age 35 to 44 in 1960, their worker rate had risen to nearly 43 percent. In the future, the impetus toward rapid increase produced by the wartime job market will taper off. However, younger generations might be expected to maintain the higher levels of labor force activity reached by their predecessors. Further increases will probably continue as a result of greater activity afforded by the expanded job market of the 1950's and by future manpower needs.

Demand for an Expanded Labor Force

While the increased availability of adult women as a source of labor supply has been an important aspect of the labor market picture in recent years, a growing demand for their services has been an equally significant factor. Employment opportunities in white-collar and service jobs have

expanded greatly since World War II. In addition, part-time working arrangements, so important to women with families, have become a common feature of the labor market. Voluntary part-time jobs appeared to be increasing as usual in the early 1960's, with virtually all the employment slowdown occurring among full-time workers.

The current demand picture complements the slowdown in supply already noted.

White-Collar and Service Jobs. Growth in the number of white-collar jobs—an outstanding feature of the labor market for many years now—tapered off in 1961 but picked up again during 1962.

Even though the trough of the 1960-61 business downturn was reached in early 1961, employment gains in white-collar jobs ran well behind the usual rate of increase through early 1962 while the economy as a whole was in a recovery phase. For women workers, the slackening showed up in each of the four major categories of white-collar work—professional, managerial, clerical, and sales; among men, the slowdown was more pronounced in the groups holding clerical and sales jobs. In the last half of 1962, job gains seemed to return to normal in most categories, although sales jobs continued to show no growth at all. Considering the 1960-62 period as a whole, the slowdown in white-collar job growth was no greater than during previous business downturns, although the timing may have been somewhat different.

Service-Producing Industries. Much of the expansion in the labor force has been associated with the long-term growth of service-producing industries. It is the service-producing sector, encompassing those industries which provide both public and private services (including the distribution of goods), which has provided most of the 11.5 million additional nonfarm jobs created since 1947. Employment in service and finance has grown by 3.7 million—a 55-percent increase over the past 15 years. State and local government employment—up by 3.3 million—has nearly doubled over the same period; the majority of the expansion was in education, but a large part—1.4 million—was in a variety of other services demanded by growing communities. Trade employment has expanded by 2.6 million over the same period, a 30-percent increase.

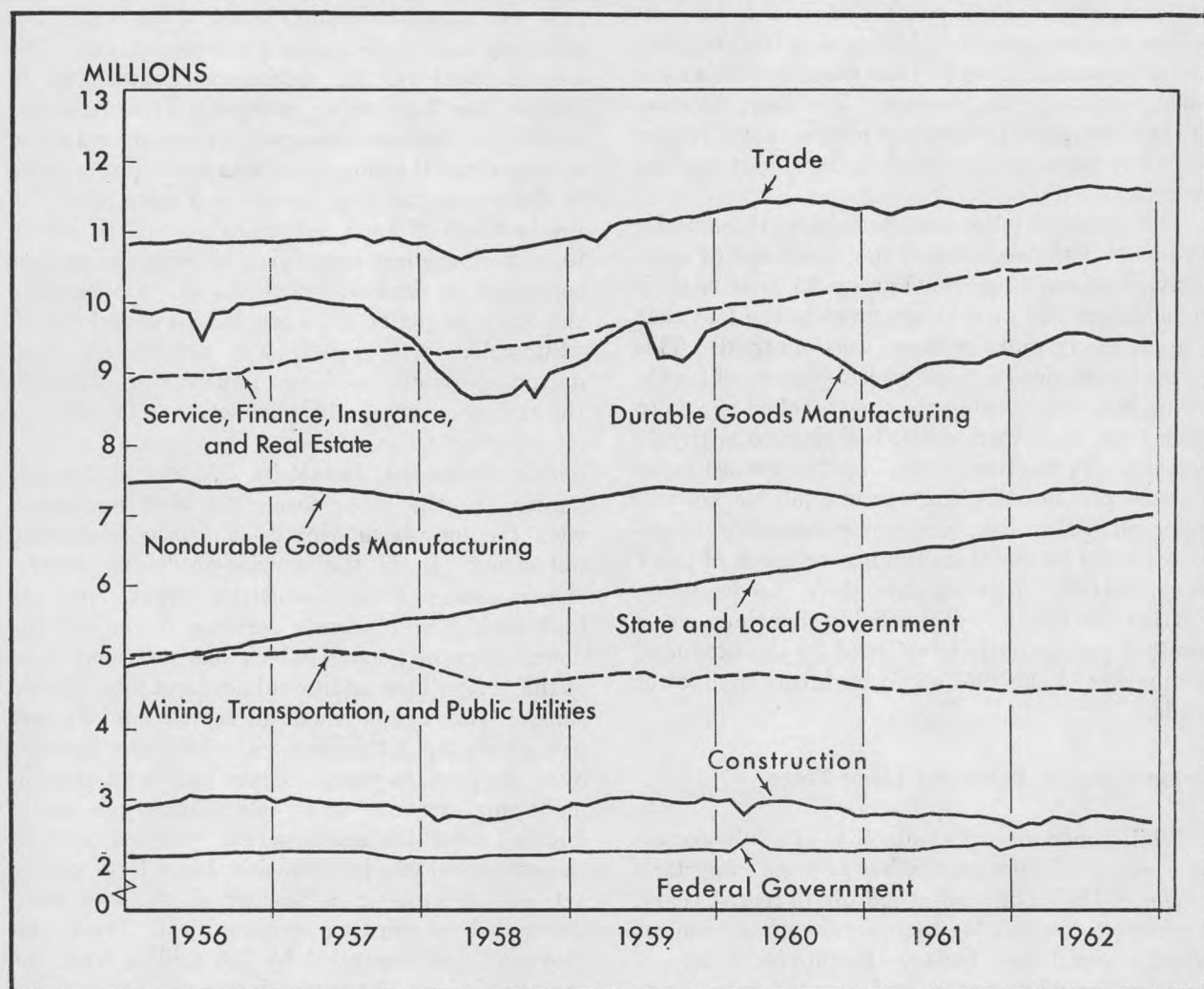
Goods-producing industries, on the other hand, have dropped from 42 to 36 percent of nonfarm payroll employment during the same 15 years, as employment in mining, construction, and manufacturing combined rose by only 1.6 million.

Just as labor force growth was relatively slow during the second half of 1961 and most of 1962, employment gains in the service-producing industries which had been absorbing much of this growth were also below normal in that period. (See chart 4.) The number on finance and service payrolls showed little change during the first half of 1962, remaining around 10.4 million (seasonally adjusted), then picked up strongly in the second half of the year, reaching 10.7 million by December. The past year's developments differ

somewhat from the 1957-59 cyclical pattern. While that recession had slowed the expansion in service employment temporarily, this dampening effect had occurred during the downturn phase of the cycle; further, in the recovery phase, finance and service had provided more than their share of the pickup in employment. This time, growth continued from the prerecession peak in May 1960 until the trough in February 1961, then resumed in April and began to taper off in December 1961.

After recovery from the 1958 recession, trade employment advanced sharply but fell off slightly in the 1960 downturn and then continued unchanged through 1961. Employment finally picked up during the first half of 1962, rising

Chart 4. Seasonally Adjusted Employment in Nonagricultural Establishments, 1956-62



above the prerecession high to 11.6 million by midyear (seasonally adjusted). No further gain was registered during the remainder of the year in trade employment.

Taken together, these developments add up to a weakened demand for labor during parts of 1961 and 1962 in those industries which had been absorbing most of the new workers moving into the labor force. (Recovery in manufacturing did not have much effect on labor force growth, since factory hiring consisted for the most part of unemployed workers laid off during the downturn rather than new labor force entrants.) While the slowdown in service-producing industries, as in the case of white-collar jobs, was not basically different from that following previous postwar recessions except in the timing pattern, it should be emphasized that employment growth in service-producing industries must accelerate if the labor force is to grow in line with long-term trends and without rising unemployment.

Conclusion

Developments during 1961 and 1962 were not inconsistent with previous year-to-year fluctuations in labor force growth during the postwar period, nor do they conclusively indicate any changes in longrun trends. Growth had not proceeded at an even pace in earlier years; substantial year-to-year fluctuations had been a major characteristic of the upward movement.

In part, these fluctuations reveal the marked flexibility of the labor force. Experience in the past has shown that in unusual demand situations, such as World War II and the capital goods boom of 1955-56, people respond to expanding opportunities by entering the labor force in unusually large numbers. Since the demographic, technological, and social factors which influence the supply of labor change in a fairly gradual fashion, the immediate response during those situations indicates that it was the large number of attractive job opportunities which brought these workers into the active labor market. While the longrun changes had given more people the option of working outside the home, it was a favorable demand situation which prompted them to exercise their option.

It is much less certain, however, that the labor force responds similarly to moderate changes in economic activity. To some extent, the short-run variations in the statistics are the result of technical problems of enumeration, response, and estimation. For this reason alone, changes in the labor force and employment over a period of 1 or 2 years cannot be taken as a reversal or acceleration of longrun trends. In fact, such fluctuations have been the rule rather than the exception. Unfortunately, as with a great many other economic time series, the emergence of changing patterns is only apparent over a longer period of time.

Educational Attainment of Workers, March 1962

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THE PAST TWO DECADES have witnessed a substantial upgrading of the educational level of American workers. This improvement is in part a reflection of the pervasive advance of educational levels in the population as a whole, as indicated by the growing proportions of young people in school and the longer average duration of formal schooling. As the more educated youth enter the work force, replacing the less educated older workers who have died or reached retirement age, the educational level of the working population grows apace.

Further impetus to this growth has been added by the accelerating demand for workers in occupations requiring more skills and training and the appearance of many new occupational specialties which require high degrees of training and education. The response of American workers to these demands can be seen in the growing proportions of those graduating from high school and those completing 4 years of college or more.

This article analyzes recent trends in the educational attainment of American workers, the relation between education and occupation, and the association of education with employment and income. Recent changes in the Nation's occupational structure and their implications for the levels of training and education which will be required of the Nation's work force in the future are also summarized.¹

Trends in Educational Attainment

Long-Term Increases. The educational attainment of workers in the civilian labor force has steadily improved since 1940 for both men and women and for every age group. The most recent data for 1962 suggest that the trend toward higher levels is continuing unabated. (See table 1.)

The outstanding development in educational attainment since 1940 has been the rise of 70 percent in the proportion of workers completing 4 years of high school or more. The more pronounced increase among men workers should be

viewed in the light of the higher proportion of women workers who were high school graduates in 1940. (As brought out later, the educational level of women in the labor force is higher than that of all women since the likelihood of participation in the labor force increases with education.) Although the proportion of workers completing 4 years of college or more was still small in 1962, it had nearly doubled since 1940—from 6 to 11 percent. Here again the rise was more rapid for men than for women workers.

From 1940 to 1962, men between the ages of 35 and 44 have made the most impressive gains in educational attainment among persons in the labor force. Both the proportions with at least 4 years of high school or more and 4 years or more of college more than doubled. The younger of the World War II veterans would now be in this age group, but the operation of factors other than the "G.I. Bill" in the upgrading of educational levels is suggested by the substantial gains made by men in other age groups.

The more modest increase in the educational level of women workers since 1940 is associated with the rapid growth of the number of women in the work force. The labor market in 1940 was more selective of better educated women than at present, when substantial numbers of less-educated women are also finding employment. Since 1940, the rise in the proportion completing 4 years of high school or more (an increase of 38 percent) has been about half that of the men, but the proportion completing high school was still greater than that of the men—61 percent versus 52 percent. The greatest increase among women workers completing 4 years of college or more was found in the group 18 to 34 years old—from 6 to 10 percent. On the whole, the proportion of male workers with college or graduate professional

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¹ This article is based on information from supplementary questions in the March 1962 monthly survey of the labor force, conducted for the Bureau of Labor Statistics by the Bureau of the Census through its Current Population Survey. The data pertain to the civilian noninstitutional population, including Alaska and Hawaii, and relate to the week of March 11 through 17. Data for 1959 and earlier exclude Alaska and Hawaii.

The last similar survey, covering March 1959, appeared in the February 1960 issue of the *Monthly Labor Review*, pp. 113-122, and was published as Special Labor Force Report No. 1. The results of earlier surveys on this subject have been published in the Bureau of the Census *Current Population Reports*, Series P-50, Nos. 14, 49, and 78. Data on the educational attainment of the population in 1959 and 1962 are presented in *Current Population Reports*, Series P-20, Nos. 99 and 121, respectively.

degrees has increased twice as rapidly as the corresponding proportion among women workers during the past 22 years.

Married Women. Recent trends in the employment of married women with different amounts of formal schooling suggest that further increases in the educational level of women workers are in prospect. Data for 1959 and 1962 on the labor force participation rates of married women with husband present, by years of school completed, indicate a growing tendency for the more educated women to enter the labor force while the proportion of the less-educated women in the labor force remains nearly constant:

Years of school completed	Labor force participation rates of married women, husband present			
	18 to 34 years		35 years and over	
	1959	1962	1959	1962
Elementary:				
Under 5 years.....	22.3	21.7	17.5	20.1
5 to 7 years.....	24.1	22.5	24.6	26.0
8 years.....	25.0	24.1	28.4	27.6
High school:				
1 to 3 years.....	26.7	28.0	33.5	34.6
4 years.....	30.8	30.4	35.8	38.4
College:				
1 to 3 years.....	29.3	30.9	34.3	36.9
4 years or more.....	36.9	44.6	46.0	52.3

Furthermore, in both years, the rates of labor force participation rose with an increase in level of education and were over twice as high for women college graduates than for women with less than 5 years of schooling. This relationship holds among both younger and older married women, indicating that the association between education and labor force participation can be found among married women of all ages.

Young Adult Population. The younger adult population (persons 25 to 29 years old, both in and out of the labor force) shows most clearly the effects of recent trends toward longer schooling. At the present time, nearly all persons in this age group have completed their formal schooling; they would be likely to have attained higher levels of education, on the average, than older groups in the population. In March 1962, 4 years of high school or more had been completed by 69 percent of the whites in this age group and 1 year of college or more by 27 percent (table 2). In 1940, the corresponding percentages were 41 and 14. The more rapid rise in the educational

TABLE 1. EDUCATIONAL ATTAINMENT OF THE CIVILIAN LABOR FORCE 18 TO 64 YEARS OLD, BY AGE AND SEX, SELECTED YEARS, 1940-62

Age group and year	Percent completing 4 years of high school or more			Percent completing 4 years of college or more		
	Both sexes	Male	Female	Both sexes	Male	Female
18 to 64 years:						
March 1962.....	54.9	51.9	60.6	11.1	11.9	9.7
March 1959.....	50.9	47.8	57.0	9.7	10.5	8.2
March 1957.....	48.5	45.3	55.0	9.2	9.6	8.4
October 1952.....	44.5	41.2	51.4	8.1	8.3	7.7
April 1940.....	32.0	27.8	44.0	5.7	5.4	6.6
18 to 34 years:						
March 1962.....	66.1	63.0	72.0	11.7	12.8	9.5
March 1959.....	61.9	58.3	69.2	10.2	11.5	7.4
October 1952.....	55.8	51.5	63.8	8.1	8.7	7.1
April 1940.....	40.5	35.5	51.3	5.4	5.2	5.9
35 to 44 years:						
March 1962.....	57.4	55.4	61.4	12.7	14.4	9.5
March 1959.....	53.6	52.0	57.0	10.4	11.4	8.5
October 1952.....	46.0	44.4	49.4	8.8	9.0	8.4
April 1940.....	27.3	24.6	36.3	6.7	6.4	7.9
45 to 64 years:						
March 1962.....	42.6	39.1	49.2	9.6	9.3	10.0
March 1959.....	38.0	34.5	44.9	8.9	8.9	8.8
October 1952.....	30.5	28.2	36.0	7.5	7.3	8.0
April 1940.....	21.6	19.5	30.8	5.5	5.1	7.2

level of the male population during this period parallels that of the male workers. By 1962, the percent of white men completing a minimum of 4 years of high school was the same as that of women, closing a gap of 4 percentage points that existed in 1940 for this age group. At the higher educational levels (1 year of college or more), the men increased their lead over the women by a substantial margin. By 1962, 33 percent of the men and 22 percent of the women had completed at least 1 year of college.

Since 1940, the upgrading of the educational levels of the nonwhite population 25 to 29 years old has been even more striking. Both proportions obtaining a high school education and completing 1 year of college or more have at least tripled. Among nonwhites as among all persons, the men have shown greater advances in educational level than the women.

Despite these substantial increases, the educational level in 1962 of nonwhites 25 to 29 years old was still considerably below that of the whites in this age group. The difference between white and nonwhite males in the proportion completing 4 years of high school or more was still substantial in 1962—about 30 percentage points. For women, the difference was somewhat smaller in 1962. Furthermore, although the proportion of nonwhites completing 1 year of college or more

had risen much more rapidly than among the white population, the proportion of nonwhites with that amount of schooling was still below the level reached by whites in 1940 (14 percent).

The Labor Force. The close association between the rising educational level of the adult population as a whole and that of the civilian labor force can be seen in the rise in median years of school completed (table 3). Since October 1952, the median years of school completed by the civilian population 18 years old and over has increased 1.3 years, while the corresponding increase for both the total and the employed civilian labor force has been 1.2 years. The gains in educational level have been much smaller among adults not in the labor force (up 0.7 years) and among the unemployed (up 0.5 years).

It is clear that the upgrading in the educational levels of the American work force has been concentrated among the males during the past decade. In 1952, the median years of school completed by women workers was 12.0, as compared with 10.4 for the men. By 1962, these medians had risen to 12.2 and 12.0, respectively. This development is discussed in further detail later, where these educational advances are analyzed by major occupation group for each sex separately.

The difference between employed and unemployed persons in regard to educational attainment has remained fairly constant since 1957 (table 4).

TABLE 2. EDUCATIONAL ATTAINMENT OF THE POPULATION 25 TO 29 YEARS OLD, BY COLOR AND SEX, SELECTED YEARS, 1940-62

Year and color	Percent completing 4 years of high school or more			Percent completing 1 year of college or more		
	Both sexes	Male	Female	Both sexes	Male	Female
WHITE						
March 1962.....	69.3	69.3	69.4	27.1	32.9	21.7
March 1959.....	66.6	65.9	67.2	23.6	29.0	18.4
March 1957.....	63.4	60.9	65.8	21.9	26.5	17.6
April 1950.....	55.2	52.6	57.7	18.8	21.6	16.0
April 1940.....	40.9	38.6	43.1	14.1	14.7	13.5
NONWHITE						
March 1962.....	41.6	38.9	43.8	12.9	15.3	10.9
March 1959.....	39.1	40.0	38.2	11.7	13.3	10.2
March 1957.....	30.5	25.8	34.7	9.3	8.5	10.1
April 1950.....	22.9	20.4	24.9	7.5	7.3	7.7
April 1940.....	12.1	10.4	13.6	4.3	3.7	4.8

SOURCE: U.S. Bureau of the Census: *U.S. Census of Population, 1960, Characteristics of the Population, United States Summary*, Vol. II, Pt. 1, table 115 for 1940 and 1950 data; *Current Population Reports*, Series P-20, Nos. 77, 99, and 121 for 1957, 1959, and 1962 data, respectively.

TABLE 3. MEDIAN YEARS OF SCHOOL COMPLETED BY THE POPULATION 18 YEARS OLD AND OVER, BY EMPLOYMENT STATUS AND SEX, SELECTED YEARS, 1952-62

Year and Sex	Population	Labor Force			Not in labor force
		Total	Employed	Unemployed	
BOTH SEXES					
March 1962.....	11.9	12.1	12.1	10.6	10.7
March 1959.....	11.4	12.0	12.0	9.9	10.5
March 1957.....	11.0	11.6	11.7	9.4	10.2
October 1952.....	10.6	10.9	10.9	10.1	10.0
MALE					
March 1962.....	11.6	12.0	12.1	10.0	8.7
March 1959.....	11.1	11.5	11.7	9.5	8.5
March 1957.....	10.7	11.1	11.2	8.9	8.5
October 1952.....	10.1	10.4	10.4	8.8	8.5
FEMALE					
March 1962.....	12.0	12.2	12.3	11.5	11.2
March 1959.....	11.7	12.2	12.2	10.7	10.9
March 1957.....	11.4	12.1	12.1	10.4	10.7
October 1952.....	11.0	12.0	12.0	11.5	10.4

In March 1957, 52 percent of the employed and 71 percent of the unemployed (both sexes combined) had not completed a high school education—a difference of 19 percentage points. The corresponding difference was 20 percentage points in March 1959 and 18 percentage points in March 1962. The upgrading of educational levels among both the employed and the unemployed has been noteworthy during this period. The proportion of the employed workers completing 4 years of high school or more rose from 48 percent in 1957 to 55 percent in 1962. Among the unemployed, the rise was from 29 to 37 percent in the same period.

Among men, the trends in educational attainment of the employed and unemployed were substantially similar. The proportion of the employed with less than 4 years of high school declined from 55 to 48 percent from 1957 to 1962, while that of the unemployed fell from 74 to 67 percent—with the gap between the two groups remaining nearly constant. Women workers present a somewhat different picture in this respect. The proportion of employed women with less than 4 years of high school declined from 45 percent in 1957 to 40 percent in 1962, while the corresponding proportion among the unemployed dropped more sharply, from 64 to 54 percent.

On the basis of these findings, there is no evidence that unemployment was more heavily concentrated among the less educated in 1962 than in 1957. Although both the employed and the

unemployed experienced considerable educational improvement during that period, the difference in educational level between the two groups remained as large.

Education and Occupation

During the past decade, both the demand for workers in different occupations (reflecting technological and economic developments) and the general upgrading of educational levels have exerted a profound impact upon the occupational distribution of the work force (table 5).

Among workers of both sexes, the largest decline between 1952 and 1962 has been in the proportion of workers employed in farm occupations, while the largest gain has been in the proportion working in the service and professional-technical occupations. Broadly speaking, the proportion of workers in manual, farm, and service occupations has declined, while the proportion employed in white-collar work has increased. In 1952, less than 40 percent of the workers were employed in white-collar occupations; by 1962, this proportion had risen to 46 percent.

Changes in the occupational distribution of working men since 1952 are similar to those for all workers. The proportion of white-collar workers rose from 33 to 40 percent, with the steepest rise occurring in the professional and technical occupations. Among the blue-collar occupations, only the service workers showed a proportional increase in this 10-year period. The occupational distribution of working men who have not completed high school has been remarkably stable since 1952, with the exception of the pronounced decline in the number of farm workers. The proportion of working men with 4 years of high school or more has substantially increased since 1952, and from this group has come the bulk of the movement into the professional and managerial occupations.

Among women workers, the proportions employed in professional-technical, clerical, and service occupations have risen noticeably since 1952, while the proportions working as operatives and in farm employment have dropped sharply. The rise in service and clerical workers extends through every educational level except for college graduates, who show a substantially greater concentration in professional and technical occupations in 1962. The decline in the proportions of

women working as operatives is concentrated among those with 8 to 15 years of schooling.

The average educational attainment of workers improved for most occupation groups during 1952-62 (table 6). The most substantial gains occurred among persons employed in manual and service occupations, while the educational level of workers in white-collar occupations remained high or edged upward slightly. Thus, the educational levels of workers in occupations character-

TABLE 4. EDUCATIONAL ATTAINMENT OF EMPLOYED AND UNEMPLOYED PERSONS 18 YEARS OLD AND OVER, BY SEX, MARCH 1957, 1959, AND 1962

[Percent distribution]

Years of school completed and sex	March 1957		March 1959		March 1962	
	Em-ployed	Unem-ployed	Em-ployed	Unem-ployed	Em-ployed	Unem-ployed
BOTH SEXES						
Total: Number (thou-sands).....	60,897	2,595	60,801	4,014	63,939	4,049
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0
Less than 4 years of high school.....	52.0	70.8	49.1	68.7	45.3	63.0
Elementary school:						
Less than 5 years ¹	6.0	11.7	5.1	8.5	4.4	7.5
5 to 7 years.....	10.9	16.3	9.8	16.1	8.9	12.7
8 years.....	16.0	18.6	14.8	17.0	13.1	16.0
High school: 1 to 3 years.....	19.1	24.2	19.4	27.1	18.9	26.8
4 years of high school or more.....	48.1	29.2	51.0	31.2	54.8	37.1
High school: 4 years.....	29.9	21.5	31.2	23.8	32.4	27.7
College:						
1 to 3 years.....	8.7	6.1	9.6	5.2	10.9	6.7
4 years or more.....	9.5	1.6	10.2	2.2	11.5	2.7
MALE						
Total: Number (thou-sands).....	41,328	1,755	40,839	2,725	42,332	2,679
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0
Less than 4 years of high school.....	55.1	73.7	52.1	71.5	48.0	67.2
Elementary school:						
Less than 5 years ¹	6.8	14.0	5.9	9.7	5.1	9.4
5 to 7 years.....	11.8	18.5	10.7	17.2	9.8	14.3
8 years.....	17.1	18.4	15.7	18.5	13.9	17.8
High school: 1 to 3 years.....	19.4	22.8	19.8	26.1	19.2	25.7
4 years of high school or more.....	44.8	26.3	47.9	28.4	52.0	32.7
High school: 4 years.....	26.5	19.3	27.5	21.2	29.1	22.9
College:						
1 to 3 years.....	8.4	5.6	9.4	4.8	10.6	7.0
4 years or more.....	9.9	1.4	11.0	2.4	12.3	2.8
FEMALE						
Total: Number (thou-sands).....	19,569	840	19,962	1,289	21,607	1,370
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0
Less than 4 years of high school.....	45.2	64.5	42.9	63.0	39.7	54.5
Elementary school:						
Less than 5 years ¹	4.2	6.9	3.4	6.0	3.0	3.8
5 to 7 years.....	8.9	11.6	8.2	13.8	7.2	9.4
8 years.....	13.6	18.9	12.9	13.8	11.4	12.3
High school: 1 to 3 years.....	18.5	27.1	18.4	29.4	18.1	29.0
4 years of high school or more.....	54.8	35.4	57.2	37.0	60.3	45.5
High school: 4 years.....	37.0	26.1	38.7	29.2	38.8	37.1
College:						
1 to 3 years.....	9.3	7.3	10.0	6.1	11.5	6.0
4 years or more.....	8.5	2.0	8.5	1.7	10.0	2.4

¹ Includes persons reporting no school years completed.

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

ized by lower educational requisites moved upward faster than those of workers in occupations requiring more formal education.

These gains are especially significant in relation to current and anticipated future changes in the

occupational composition of the Nation's labor force. In March 1962, the five occupation groups with the lowest educational attainment levels were as follows: farm laborers and foremen, 8.5 years of school completed; private household

TABLE 5. OCCUPATION DISTRIBUTION OF EMPLOYED PERSONS 18 YEARS OLD AND OVER, BY EDUCATIONAL ATTAINMENT AND SEX, OCTOBER 1952 AND MARCH 1962¹

Years of school completed, sex, and year	Total		Percent distribution by occupation group								
	Number (thousands)	Per cent	Professional and technical workers	Managers, officials, and proprietors, except farm	Clerical workers	Sales workers	Craftsmen and foremen	Operatives	Laborers, except farm and mine	Farm occupations ²	Service workers, including private household
Both SEXES											
Total employed:											
October 1952.....	58,910	100.0	8.9	10.5	13.4	5.8	15.1	21.0	5.4	10.0	9.9
March 1962.....	63,939	100.0	12.8	11.8	15.6	6.1	12.9	17.6	4.6	6.4	12.3
Years of school completed:											
Elementary—less than 8 years:											
October 1952.....	11,612	100.0	0.3	5.1	1.9	1.9	13.3	27.9	12.2	21.9	15.5
March 1962.....	8,494	100.0	1.0	5.9	2.8	2.3	13.8	26.8	11.6	15.9	20.0
8 years elementary to 3 years high school:											
October 1952.....	21,706	100.0	1.5	9.1	7.8	4.8	19.8	28.6	6.1	10.4	11.9
March 1962.....	20,426	100.0	2.3	9.9	9.2	5.0	17.1	26.2	6.0	7.8	16.5
High school—4 years:											
October 1952.....	15,876	100.0	5.2	13.0	26.3	8.5	15.2	16.0	2.8	5.7	7.3
March 1962.....	20,688	100.0	6.7	12.4	27.3	7.5	13.7	14.8	3.0	4.2	10.4
College—1 to 3 years:											
October 1952.....	4,950	100.0	22.3	16.5	22.8	9.9	10.3	7.7	.9	4.3	5.3
March 1962.....	6,981	100.0	21.7	18.5	23.1	9.4	8.4	6.8	1.5	3.0	7.5
College—4 years or more:											
October 1952.....	4,766	100.0	60.2	14.6	10.7	5.8	2.5	1.7	.7	1.7	2.1
March 1962.....	7,350	100.0	63.9	16.2	7.9	6.2	1.8	1.3	.3	.8	1.6
MALE											
Total employed:											
October 1952.....	40,454	100.0	8.2	12.9	6.4	5.1	21.2	20.4	7.7	12.5	5.6
March 1962.....	42,332	100.0	12.1	15.1	7.3	5.5	18.8	19.3	6.7	8.4	6.7
Years of school completed:											
Elementary—less than 8 years:											
October 1952.....	8,760	100.0	0.3	6.0	1.8	1.7	17.6	25.4	15.3	23.6	8.2
March 1962.....	6,301	100.0	.9	6.6	2.3	1.6	18.3	25.8	15.3	19.3	9.8
8 years elementary to 3 years high school:											
October 1952.....	15,469	100.0	1.6	10.8	4.9	3.4	26.6	25.9	8.2	12.7	6.0
March 1962.....	14,032	100.0	2.1	12.3	5.2	3.1	23.9	27.1	8.4	9.6	8.4
High school—4 years:											
October 1952.....	9,614	100.0	5.4	18.0	9.9	8.2	24.0	17.3	4.5	8.1	4.7
March 1962.....	12,308	100.0	6.9	17.1	11.0	7.3	22.3	18.4	4.8	6.1	6.1
College—1 to 3 years:											
October 1952.....	3,299	100.0	19.1	20.9	14.3	11.7	14.8	8.1	1.6	5.9	3.7
March 1962.....	4,498	100.0	18.3	24.0	13.4	10.7	12.9	8.9	2.2	4.0	5.6
College—4 years or more:											
October 1952.....	3,315	100.0	56.9	19.0	7.0	6.8	3.7	2.0	1.0	2.3	1.4
March 1962.....	5,193	100.0	59.4	21.1	5.2	8.1	2.4	1.4	.4	1.0	1.0
FEMALE											
Total employed:											
October 1952.....	18,456	100.0	10.1	5.7	27.4	7.3	1.4	20.4	.6	6.7	20.4
March 1962.....	21,607	100.0	14.1	5.3	31.7	7.2	1.2	14.3	.5	2.5	23.2
Years of school completed:											
Elementary—less than 8 years:											
October 1952.....	2,852	100.0	0.1	3.0	2.0	3.3	0.8	28.2	1.2	21.8	39.5
March 1962.....	2,193	100.0	1.2	3.8	4.2	4.3	.9	29.4	1.0	5.9	49.2
8 years elementary to 3 years high school:											
October 1952.....	6,237	100.0	1.3	5.9	14.8	8.6	1.9	32.2	.9	7.1	27.3
March 1962.....	6,394	100.0	2.8	4.6	17.9	9.4	2.1	24.1	.7	3.9	34.5
High school—4 years:											
October 1952.....	6,262	100.0	5.1	6.2	50.6	9.0	1.6	13.4	.2	2.0	11.9
March 1962.....	8,380	100.0	6.4	5.5	51.2	7.7	1.0	9.6	.4	1.5	16.7
College—1 to 3 years:											
October 1952.....	1,651	100.0	29.1	8.6	38.8	5.9	.7	6.2	-----	2.2	8.5
March 1962.....	2,483	100.0	28.0	8.4	40.7	7.0	.3	3.1	.3	1.1	11.0
College—4 years or more:											
October 1952.....	1,451	100.0	67.2	4.6	18.2	3.2	.4	1.0	-----	1.2	4.2
March 1962.....	2,157	100.0	74.6	4.5	14.4	1.6	.1	1.2	-----	.4	3.1

¹ Data for 1952 include only persons 18 years old and over reporting school years completed; in 1962, data for persons not reporting years of school completed were allocated according to the pattern for individuals reporting this item.

² Includes farmers and managers, laborers, and foremen on farms.

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

TABLE 6. MEDIAN YEARS OF SCHOOL COMPLETED BY EMPLOYED PERSONS 18 YEARS OLD AND OVER, BY MAJOR OCCUPATION GROUP AND SEX, 1952-62

Major Occupation Groups	Both Sexes				Male				Female			
	October 1952	March 1957	March 1959	March 1962	October 1952	March 1957	March 1959	March 1962	October 1952	March 1957	March 1959	March 1962
All occupation groups.....	10.9	11.7	12.0	12.1	10.4	11.2	11.7	12.1	12.0	12.1	12.2	12.3
Professional and managerial workers.....	12.9	13.2	13.5	13.9	12.8	12.9	13.2	13.5	14.0	14.4	14.0	14.7
Professional, technical, and kindred workers.....	16+	16+	16.2	16.2	16+	16+	16.4	16.4	16+	16+	15.9	16.1
Managers, officials, and proprietors, except farm.....	12.2	12.4	12.4	12.5	12.2	12.4	12.4	12.5	12.2	12.3	12.2	12.4
Farmers and farm managers, laborers, and foremen.....	8.3	8.5	8.6	8.7	8.4	8.4	8.6	8.7	8.0	(1)	8.7	8.9
Farmers and farm managers.....	8.5	8.6	8.7	8.8	8.5	8.6	8.7	8.8	8.5	(2)	(1)	(1)
Farm laborers and foremen.....	7.5	8.2	8.3	8.5	7.2	7.4	7.7	8.3	7.9	8.7	(1)	(1)
Clerical and sales workers.....	12.4	12.4	12.5	12.5	12.4	12.5	12.5	12.6	12.4	12.4	12.4	12.5
Clerical and kindred workers.....	12.5	12.5	12.5	12.5	12.4	12.4	12.5	12.5	12.5	12.5	12.5	12.5
Sales workers.....	12.3	12.4	12.4	12.5	12.5	12.5	12.6	12.7	12.1	12.0	12.2	12.1
Craftsmen, operatives, and laborers, except farm and mine.....	9.2	9.7	10.0	10.4	9.1	9.7	10.1	10.4	9.4	(1)	9.8	10.0
Craftsmen, foremen, and kindred workers.....	10.1	10.5	11.0	11.2	10.1	10.5	11.0	11.2	11.5	11.3	11.2	9.2
Operatives and kindred workers.....	9.1	9.5	9.9	10.1	9.0	9.6	10.0	10.2	9.3	9.3	9.7	9.9
Laborers, except farm and mine.....	8.3	8.5	8.6	8.9	8.3	8.5	8.5	8.9	8.5	(2)	(2)	10.0
Service workers, including private household.....	8.8	9.0	9.7	10.2	(1)	(1)	(1)	10.3	8.8	9.0	9.5	10.2
Private household workers.....	8.1	8.3	8.4	8.7	(2)	(2)	(1)	(1)	8.1	8.3	8.4	8.7
Other service workers.....	9.2	9.6	10.3	10.8	8.8	9.0	10.1	(1)	9.7	10.2	10.5	11.1

¹ Not available.² Median not shown where base is less than 150,000 in 1957 or less than 100,000 in other years.

workers, 8.7 years; farmers and farm managers, 8.8 years; laborers, except farm and mine, 8.9 years; and operatives and kindred workers, 10.1 years. Significantly, from 1947 to 1961, four of these groups either declined in employment or barely maintained their employment levels. Employment in the exception—private household workers—about kept pace with the rise in the number of employed in the labor force during this period. The remaining six occupation groups, all characterized by higher educational requisites, increased the size of their employment at a faster rate than the growth of the Nation's labor force as a whole.

The implications of these trends for the future educational composition of the Nation's work force are unmistakable. With the sole exception of service workers, the occupation groups requiring lower levels of educational attainment will not offer the same proportional number of job opportunities that they have in the past. The professional and technical occupations, where the requisite educational level is the highest, will probably experience the most rapid increase in the number of employment opportunities in the future.² The median educational attainment of persons employed in this group has remained above 16 years throughout the 1952-62 period. Of the

remaining five groups that can be expected to maintain or increase their share of future employment opportunities, three have relatively high levels of educational attainment: managers, officials and proprietors, clerical and kindred workers, and sales workers. Their average educational attainment has remained slightly above the level of high school graduation throughout this period. The other two occupation groups have experienced rapid improvement in their average educational level: craftsmen, foremen, and kindred workers, from 10.1 to 11.2 years; and other service workers (excluding private household workers) from 9.2 to 10.8 years.

A more sensitive indicator of the advancing educational level of American workers is provided by the percent completing 8 years of elementary school or less, and the percent completing 4 years of high school or more (table 7). The proportion of male workers with 8 years of schooling or less declined from 41 to 29 percent in the 1952-62 period, while the proportion completing 4 years of high school or more rose by a like amount—from 40 to 52 percent. These changes were distributed among all of the major occupation groups, especially among workers in occupations requiring less formal education, such as service workers, operatives, and laborers.

Among women workers, educational gains have been less pronounced in this 10-year period—a drop from 31 to 22 percent in the proportion com-

² See "Employment Projections to 1975," *Monthly Labor Review*, March 1963, pp. 240-248.

pleting 8 years or less of elementary schooling and a rise from 51 to 60 percent in the proportion with 4 years of high school or more. Furthermore, these changes were concentrated among farm workers and service workers, with relatively minor changes occurring in the other occupation groups.

Trends in the educational attainment of workers from March 1959 to March 1962 indicate a continuation of the gains registered up to 1959. Among white working men (table 8), this 3-year period has seen a continued decline in the proportion completing 8 years of school or less and a further rise in the proportion completing 4 years of high school or more. Corresponding changes among nonwhite working men have been somewhat sharper, particularly the increase in the proportion of high school graduates. Despite this increase, the median years of school completed by nonwhite men in the broad group of professional and managerial occupations³ dropped 2.0 years between 1959 and 1962. One factor in this decline may be the movement of larger numbers of nonwhite high school graduates into technical occupations, some of which require less education than the professions.

TABLE 7. EDUCATIONAL ATTAINMENT OF EMPLOYED PERSONS 18 YEARS OLD AND OVER, BY SEX AND OCCUPATION GROUP, OCTOBER 1952 AND MARCH 1962

Occupation group and sex	Percent completing 8 years of elementary school or less			Percent completing 4 years of high school or more		
	October 1952 ¹	March 1962 ¹	Difference	October 1952 ¹	March 1962 ¹	Difference
MALE						
All occupations.....	41.0	28.8	-12.2	40.1	52.0	11.9
Professional and managerial workers.....	16.5	10.9	-5.6	71.1	78.4	7.3
Clerical and sales workers.....	17.2	11.7	-5.5	65.8	74.2	8.4
Craftsmen, foremen, and kindred workers.....	41.3	31.3	-10.0	34.0	43.4	9.4
Operatives and kindred workers.....	50.4	38.7	-11.7	24.3	33.5	9.2
Service workers, including private household ²	53.3	39.7	-13.6	27.3	37.1	9.8
Laborers, except farm and mine.....	67.4	51.5	-15.9	16.6	25.0	8.4
Farm occupations ³	67.1	57.8	-9.3	20.7	27.7	7.0
FEMALE						
All occupations.....	31.2	21.7	-9.5	50.8	60.3	9.5
Professional and managerial workers.....	10.4	6.6	-3.8	81.3	86.0	4.7
Clerical workers.....	5.9	5.4	-0.5	80.6	81.9	1.3
Sales workers.....	23.1	20.8	-2.3	53.1	55.0	1.9
Manual occupations ⁴	46.2	40.8	-5.4	26.3	30.3	4.0
Service workers, including private household.....	53.9	40.2	-13.7	25.1	34.5	9.4
Farm occupations ³	71.7	52.5	-19.2	14.6	30.4	15.8

¹ See footnote 1, table 5.

² Excludes private household workers, who comprised 1.3 percent of all male service workers.

³ Includes farmers, and managers, foremen, and laborers on farms.

⁴ Includes craftsmen, operatives, nonfarm laborers, and kindred workers.

TABLE 8. EDUCATIONAL ATTAINMENT OF EMPLOYED PERSONS 18 YEARS OLD AND OVER, BY MAJOR OCCUPATION GROUP, COLOR, AND SEX, MARCH 1959 AND MARCH 1962¹

Major occupation group, color, and sex	Median years of school completed		Percent completing 8 years of elementary school or less		Percent completing 4 years of high school or more	
	Mar. 1959	Mar. 1962	Mar. 1959	Mar. 1962	Mar. 1959	Mar. 1962
WHITE MALE						
All occupations.....	12.0	12.1	29.3	26.6	49.6	54.5
Professional and managerial workers ²	13.2	13.5	12.8	10.6	75.1	78.8
Clerical and sales workers.....	12.5	12.6	12.8	11.4	71.2	74.7
Manual occupations ³	10.4	10.7	36.8	35.2	35.1	38.2
Farm occupations ⁴	8.7	8.8	57.0	54.9	26.5	30.4
Service workers, including private household.....	10.2	10.7	39.1	37.6	35.3	40.3
NONWHITE MALE						
All occupations.....	8.2	9.0	57.0	50.6	21.0	28.2
Professional and managerial workers ²	14.8	12.8	21.7	21.2	66.8	64.8
Clerical and sales workers.....	12.4	12.4	16.3	16.8	61.5	67.3
Manual occupations ³	7.9	8.6	62.3	55.0	13.3	21.8
Farm occupations ⁴	5.3	5.6	84.1	77.6	5.8	9.8
Service workers, including private household.....	9.6	9.4	42.4	46.5	28.5	26.7
WHITE FEMALE						
All occupations.....	12.3	12.3	21.0	19.2	60.1	63.4
Professional and managerial workers ²	14.0	14.6	7.2	6.6	84.9	85.9
Clerical and sales workers.....	12.4	12.5	8.1	8.3	76.1	76.9
Manual occupations ³	9.8	9.9	40.8	41.1	27.7	30.3
Farm occupations ⁴	8.9	9.3	52.6	48.3	31.4	33.8
Service workers, including private household.....	10.0	10.7	40.4	36.4	32.3	39.4
NONWHITE FEMALE						
All occupations.....	9.4	10.5	46.1	38.2	29.9	37.7
Professional and managerial workers ²	15.6	16.2	17.0	6.9	74.5	88.3
Clerical and sales workers.....	12.5	12.5	8.9	6.4	76.7	77.4
Manual occupations ³	9.5	10.0	43.4	39.1	25.0	29.4
Farm occupations ⁴	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Service workers, including private household.....	8.6	9.2	54.0	48.4	19.8	24.2

¹ Data for 1959 include only persons reporting years of school completed; in 1962, data for persons not reporting years of school completed were allocated according to the pattern for individuals reporting this item.

² Includes professional and technical workers, and managers, officials, and proprietors, except farm.

³ Includes craftsmen, operatives, nonfarm laborers, and kindred workers.

⁴ Includes farmers and managers, foremen, and laborers on farms.

⁵ Median and percent not shown where base is less than 100,000.

The increase in the number of both white and nonwhite workers in these occupations reflects the heavy demand for such workers, and also suggests that the more educated nonwhites are experiencing a measure of success in their efforts to find employment on a par with their educational attainment.

Among white women workers, the general trend in educational levels has been in the same direction

³ This occupation group includes such occupations as clergymen, teachers, welfare workers, musicians, and technicians in science, engineering, and medicine.

as that of the men, although the changes are of smaller magnitude and not as evenly distributed among the occupation groups. Nonwhite women workers experienced sharp declines in the proportion completing 8 years of school or less and very substantial gains in the proportion completing 4 years of high school or more during this 3-year period, with the greatest changes concentrated in the professional and managerial groups. The educational upgrading of nonwhite women employed in these occupations runs counter to the trend for nonwhite men. This divergence may be due to the types of occupations available to workers of each sex in these broad occupation groups. Men with less education may find employment as technical assistants, while women in technical and managerial occupations would normally be working in specialties requiring more formal education, such as professional nurses, librarians, and teachers.

The March 1962 occupational distribution of white and nonwhite workers with different amounts of formal schooling suggests that nonwhite workers are still at a relative disadvantage in the competition for preferable occupations but that this disadvantage is lessened considerably as they move upward in educational attainment. These distributions also reveal the association between occupation and level of schooling:

Employed men as percent of total employed men 18 years old and over, March 1962

	<i>Less than 4 years of high school</i>		<i>4 years of high school</i>		<i>1 year of college or more</i>	
	White	Non-white	White	Non-white	White	Non-white
White-collar workers..	21.0	7.5	43.4	25.0	82.0	59.6
Professional and managerial.....	13.5	4.3	24.9	9.2	63.6	41.4
Clerical and sales..	7.5	3.2	18.5	15.8	18.4	18.2
Blue-collar workers...	79.0	92.5	56.6	75.0	18.1	40.4
Craftsmen.....	24.3	9.4	23.1	9.3	7.3	7.3
Operatives.....	26.9	25.6	18.0	24.2	4.6	11.2
Service workers..	7.5	17.1	5.3	18.3	2.8	11.0
Laborers.....	8.0	25.9	3.9	20.1	1.1	5.2
Farm occupations..	12.3	14.5	6.3	3.1	2.3	5.7

NOTE: Because of rounding, these percentages may not add to 100.

Of the men workers who had not completed high school, 21 percent of the whites and 8 percent of the nonwhites were employed in white-collar occupations; 24 percent of the whites and 9 percent of the nonwhites were working as craftsmen; and 8 percent of the whites and 26 percent of the nonwhites were employed as laborers.

Part of the differences shown in the tabulation for men may be due to the lower average educational level of nonwhites within the broad category "less than 4 years of high school." But the tendency for nonwhites to be concentrated in the lower paid occupations is also borne out in the distribution of men who have completed 4 years of high school, where 20 percent of the nonwhites and 4 percent of the whites were employed as laborers.

Although the majority of white and nonwhite men with 1 year of college or more was employed in white-collar occupations in 1962, the proportion was much higher among the whites—82 percent as compared with 60 percent. Even at this educational level, 27 percent of the nonwhites were employed as operatives, service workers, or laborers, as compared with 8 percent of the whites.

The occupational distribution of white and nonwhite women workers reflects a similar association between occupation and educational attainment, with the nonwhites again concentrated in the lower paid jobs:

Employed women as percent of total employed women 18 years old and over, March 1962

	<i>Less than 4 years of high school</i>		<i>4 years of high school</i>		<i>1 year of college or more</i>	
	White	Non-white	White	Non-white	White	Non-white
White-collar workers..	35.0	6.5	73.7	37.9	90.9	70.5
Professional and managerial....	8.1	1.9	12.4	6.2	56.6	53.7
Clerical and sales..	26.9	4.6	61.3	31.7	34.3	16.8
Blue-collar workers...	65.0	93.5	26.3	62.1	9.1	29.5
Operatives.....	27.7	16.2	9.2	14.3	2.1	4.2
Service workers...	30.1	72.0	14.2	45.3	5.8	24.8
All other.....	7.2	5.3	2.9	2.5	1.2	.5

NOTE: Because of rounding, these percentages may not add to 100.

In March 1962, 88 percent of the nonwhite women with less than 4 years of high school were employed as operatives or service workers, as compared with 58 percent of the whites. Among high school graduates, 74 percent of the whites and 38 percent of the nonwhites were employed in white-collar occupations. The differences in occupational distribution between white and nonwhite working women with some college were less pronounced. About half of the women in both groups were employed in professional and managerial occupations in March 1962. However, 30 percent of the nonwhites at this educational level and 9 percent of the whites were employed in blue-collar occupations.

Education, Employment, and Income

Because jobs requiring less education are usually more vulnerable to economic fluctuations, there is a relationship between job regularity and educational level. Both men and women workers with less than a high school education were more likely to be unemployed or working part time for economic reasons than those with more education (table 9). In March 1962, half of the men 18 years old and over in the civilian labor force had graduated from high school. The corresponding proportions were 30 percent among men working part time for economic reasons, 35 percent among the short-term unemployed (without jobs for less than 15 weeks), and 28 percent among the long-term unemployed (15 weeks or more). The same relationship holds for men in the 25-54 age group.

Among women, the main contrast in educational levels is between the civilian labor force as a whole, of whom 59 percent had completed 4 years of high school or more, and those working part time for economic reasons, with only 30 percent high school graduates. The proportion completing 4 years of high school or more was about the same among the short-term unemployed (45 percent) and those without jobs for a longer period (46 percent). The differences in educational level between the civilian labor force as a whole and those working part time for economic reasons or the unemployed are about the same among older women workers (35 to 64 years old) as among all working women 18 years old and over.

In general, rates of unemployment declined sharply as of March 1962 with increases in educational attainment (table 10). The rate of un-

TABLE 9. EDUCATIONAL ATTAINMENT OF PERSONS WORKING PART TIME FOR ECONOMIC REASONS AND UNEMPLOYED PERSONS, BY DURATION OF UNEMPLOYMENT, SELECTED AGES, AND SEX, MARCH 1962

[Percent distribution]

Age, sex, and employment status	Total		Years of school completed				
	Number (thousands)	Percent	Elementary school		High school		College—1 year or more
			Less than 8 years ¹	8 years	1 to 3 years	4 years	
BOTH SEXES, 18 YEARS OLD AND OVER							
Civilian labor force.....	67,988	100.0	13.7	13.3	19.3	32.1	21.6
Part time for economic reasons ²	2,310	100.0	28.7	16.0	25.0	22.5	7.8
Unemployed less than 15 weeks.....	2,617	100.0	18.6	15.2	27.1	29.0	10.0
Unemployed 15 weeks or more.....	1,432	100.0	22.9	17.2	26.4	25.4	8.0
MALE, 18 YEARS OLD AND OVER							
Civilian labor force.....	45,011	100.0	15.4	14.2	19.6	28.7	22.1
Part time for economic reasons ²	1,280	100.0	29.5	15.6	24.4	24.5	5.9
Unemployed less than 15 weeks.....	1,647	100.0	21.5	16.9	26.2	24.8	10.6
Unemployed 15 weeks or more.....	1,032	100.0	27.2	19.4	24.9	20.0	8.5
<i>Male, 25 to 54 Years Old</i>							
Civilian labor force.....	30,623	100.0	13.3	12.4	19.8	30.2	24.3
Part time for economic reasons ²	831	100.0	29.8	15.3	24.1	24.3	6.5
Unemployed less than 15 weeks.....	992	100.0	22.3	18.3	25.7	22.9	10.8
Unemployed 15 weeks or more.....	561	100.0	26.4	19.8	26.4	17.8	9.6
FEMALE, 18 YEARS OLD AND OVER							
Civilian labor force.....	22,977	100.0	10.3	11.5	18.8	38.7	20.7
Part time for economic reasons ²	1,030	100.0	27.6	16.4	25.8	20.0	10.2
Unemployed less than 15 weeks.....	970	100.0	13.8	12.5	28.6	36.1	9.1
Unemployed 15 weeks or more.....	400	100.0	11.8	11.8	30.2	39.5	6.8
<i>Female, 35 to 64 Years Old</i>							
Civilian labor force.....	13,950	100.0	12.9	14.4	18.8	33.9	20.0
Part time for economic reasons ²	691	100.0	32.6	20.0	21.1	17.5	8.8
Unemployed less than 15 weeks.....	411	100.0	21.9	16.5	26.8	27.5	7.3
Unemployed 15 weeks or more.....	222	100.0	14.9	16.7	26.6	34.7	7.2

¹ Includes persons reporting no school years completed.

² Persons working less than 35 hours per week because of inability to find full-time work, slack work, material shortages, etc.

TABLE 10. UNEMPLOYMENT RATES FOR SELECTED AGE GROUPS, BY COLOR, SEX, AND EDUCATIONAL ATTAINMENT, MARCH 1962

[Percent of civilian labor force]

Age group, color, and sex	Years of school completed				
	Elementary school		High school		College— 1 year or more
	Less than 8 years ¹	8 years	1 to 3 years	4 years	
BOTH SEXES					
18 to 24 years:					
Total.....	20.4	19.5	17.6	9.8	5.5
White.....	21.5	15.9	16.0	9.0	5.1
Nonwhite.....	18.5	32.7	24.7	17.4	12.0
25 to 54 years:					
Total.....	8.8	7.5	7.1	3.9	2.2
White.....	8.5	6.9	6.0	3.4	2.1
Nonwhite.....	9.6	12.2	14.0	11.3	4.5
MALE					
18 to 24 years.....	18.4	19.2	16.7	10.2	6.0
25 to 54 years.....	9.1	7.7	6.6	3.5	2.2
25 to 34 years.....	9.6	9.0	8.6	4.4	2.7
35 to 44 years.....	9.0	7.4	6.6	3.0	1.9
45 to 54 years.....	9.0	7.3	4.7	3.1	1.7
FEMALE					
18 to 24 years.....	27.4	20.4	19.3	9.4	5.0
25 to 54 years.....	7.9	7.0	8.1	4.6	2.4
25 to 34 years.....	9.9	10.2	10.8	6.0	3.0
35 to 44 years.....	6.5	8.7	8.0	4.3	2.6
45 to 54 years.....	8.3	4.8	5.9	3.6	1.6

¹ Includes persons reporting no school years completed.

employment among persons with some college was about one-fourth as high as among those with less than 8 years of schooling for both newer entrants to the labor force (18 to 24 years old) and older workers (25 to 54 years old). While this relationship held for total and white workers of each sex and for successive age groups, it was not nearly so pronounced among nonwhite workers. Except for workers with less than 8 years of schooling, unemployment rates among nonwhites were generally two to three times as high as among whites with corresponding amounts of schooling. Furthermore, the nonwhite unemployment rates for persons 18 to 24 years old were very high at all educational levels. Among nonwhites 25 to 54 years old, unemployment rates did not decline markedly with rising educational attainment until the level of 1 or more years of college was reached.

Unemployment rates among women workers display less uniformity in relation to educational levels than they do among men. In general, the chances of being hit by unemployment are not greatly lessened by rising educational attainment until a woman has reached the level of high school graduation.

Educational attainment does not bear as close a relationship to the duration of unemployment. A more educated person is less likely to become unemployed, but once he loses his job, he is almost as likely to remain without work as long as the person with less formal schooling. In March 1962, the percent of the unemployed who were without work 15 weeks or more showed a moderate decline with advancing educational attainment:

Percent of total unemployed without work 15 weeks or more for persons with schooling of—

TOTAL	<i>Percent of total unemployed without work 15 weeks or more for persons with schooling of—</i>				
	<i>Less than 8 years</i>	<i>8 years</i>	<i>1 to 3 years of high school</i>	<i>4 years of high school</i>	<i>1 year or more of college</i>
Both sexes, 18 years and over.....	39.9	38.0	34.8	32.5	30.3
Males, 18 years and over.....	44.0	41.7	37.3	33.5	33.8
Males, 25 to 54 years.....	40.2	37.7	36.6	30.5	34.0
Females, 18 years and over.....	25.4	27.6	30.5	31.2	22.4
NONWHITE					
Both sexes, 18 years and over.....	41.9	40.0	40.3	41.5	(¹)

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

In March 1962, the proportion of jobless male workers unemployed 15 weeks or more declined with a rise in years of school completed, but only to the level of high school graduation. Among women workers, the proportion of long-term unemployed rose slightly with increased educational attainment until the level with some college was reached, where it dropped sharply.

Differences between total and nonwhite workers in regard to the proportion of long-term unemployed are much less marked than the differences in the incidence of unemployment discussed earlier. In March 1962, about 40 percent of the unemployed nonwhites had been unemployed 15 weeks or more, regardless of their educational level. Among all workers, the proportion of long-term unemployed declined moderately from about 40 percent at the lowest educational level to about 30 percent at the level with some college.

Postwar trends in the income that accompanies different levels of formal schooling are indicative of the growing material rewards being achieved by the more educated workers. The average of the mean annual income of males 25 to 34 years old for 4 selected years between 1946 and 1958 ranged from a low of \$2,975 for elementary school graduates to a high of \$5,205 for college grad-

TABLE 11. MEDIAN INCOME OF PERSONS 14 YEARS OLD AND OVER, BY COLOR, SEX, AND EDUCATIONAL ATTAINMENT, 1958 AND 1961

Color, sex, and year	Years of school completed				
	Elementary school		High school		College— 1 year or more
	Less than 8 years	8 years	1 to 3 years	4 years	
MALE					
Total: 1958.....	\$1,905	\$3,214	\$3,594	\$4,548	\$5,702
1961.....	2,090	3,452	3,865	5,052	6,235
Percent change, 1958-61....	9.7	7.4	7.5	11.1	9.3
White: 1958.....	\$2,076	\$3,276	\$3,774	\$4,654	\$5,810
1961.....	2,303	3,617	4,090	5,155	6,379
Percent change, 1958-61....	10.9	10.4	8.4	10.8	9.8
Nonwhite: 1958.....	\$1,447	\$2,328	\$2,224	\$2,994	\$3,679
1961.....	1,554	2,505	2,427	3,381	4,246
Percent change, 1958-61....	7.4	7.6	9.1	12.9	15.4
FEMALE					
Total: 1958.....	\$711	\$909	\$867	\$2,036	\$2,429
1961.....	791	950	994	1,938	2,342
Percent change, 1958-61....	11.3	4.5	14.6	-4.8	-3.6
White: 1958.....	\$765	\$924	\$927	\$2,095	\$2,394
1961.....	817	955	996	1,965	2,395
Percent change, 1958-61....	6.8	3.4	7.4	-6.2	(1)
Nonwhite: 1958.....	\$663	\$863	\$839	\$1,330	\$2,365
1961.....	709	919	988	1,566	2,410
Percent change, 1958-61....	6.9	6.5	17.8	17.7	1.9

¹ Less than 0.05 percent.

SOURCE: *Current Population Reports, Income of Families and Persons in the United States* (U.S. Bureau of the Census), Series P-60, Nos. 33 and 39.

uates—a gap of 75 percent.⁴ The corresponding range among men 45 to 54 years old was from \$3,626 to \$9,332—a gap of 157 percent. These data suggest that the advantage enjoyed by the more educated worker tends to grow as his age advances. In addition, the more educated younger worker initially enjoys a higher median income than the less educated older worker. This point is illustrated by the fact that younger male high school graduates (25 to 34 years old) earned more during this period than older men (45 to 54 years old) who had only completed elementary school. In other words, a 4-year investment in a high school education is associated with higher average annual incomes than the accumulation of over 20 years of work experience without such high school training.

A similar discrepancy can be seen in comparing the income of high school and college graduates. During 4 selected years in the period 1946-58, the average annual income of male college graduates 25 to 34 years old was about equal to that of male high school graduates 45 to 54 years old—despite the accumulation of at least 20 years' additional work experience by the older group. The great emphasis now being placed upon the

completion of formal education beyond the elementary school level is also reflected in the growing differences over time between the incomes of the less educated and more educated workers. In 1946, older workers with less education enjoyed somewhat higher incomes than younger workers with more education. However, by 1956, 4 years of additional schooling at the high school level or 4 or more years at the college level appeared to outweigh 20 to 25 years of additional work experience in determining average income levels.

Differences in the income of male workers in successive age groups with the same amount of formal schooling reveal a similar pattern. In the 1946-58 period, the average income of male elementary school graduates 45 to 54 years old was only 22 percent more than that of males 20 years younger with the same amount of schooling. Among high school graduates, the income of the older group was about 36 percent more than the younger. Among college graduates, however, this difference amounts to 79 percent, indicating that the accumulation of work experience possesses far greater economic value when it is based upon an initially high level of formal education.

Increases between 1958 and 1961 in median income, as shown in table 11, indicate a continuation of the gains that have occurred since World War II. In 1961, the median income for males with some college education was \$6,235, as compared with \$2,090 for males with less than 8 years of schooling—a ratio of 3 to 1. The corresponding medians for women yielded an identical ratio, while those for whites and nonwhites of each sex were of similar magnitude.

Dollar incomes rose by a considerable amount during this 4-year period. Although some increases are apparent at every educational level for both white and nonwhite male workers, only the median income of nonwhite women with some high school education has shown a substantial improvement in this period; income levels for other women workers have not changed markedly.

Although the median income of nonwhites with higher levels of education has shown marked improvement during this 4-year period as compared with whites, significant differences remain between the income of whites and nonwhites with equivalent amounts of education. In gen-

⁴ Herman P. Miller, "Annual and Lifetime Income in Relation to Education: 1939-1959," *American Economic Review*, December 1960, pp. 962-986.

eral, the median income of nonwhite men was about two-thirds as high as that of white men at each educational level in 1961. Among women, the largest discrepancy in median income between whites and nonwhites was in the group completing 4 years of high school, where the median income of the whites was one-fourth higher than that of the nonwhites in 1961. At all other educational levels, the income of white and nonwhite women workers does not differ substantially.⁵

Summary

The higher educational attainment of American workers in March 1962 reflects a remarkable response to the demands of our economy for workers possessing high levels of skill and education. However, current changes in the occupational structure of the economy, together with

present trends in employment and income, portend an accelerated demand for highly trained workers in the future and a continued reduction in the demand for workers with little education. But educational advances alone cannot guarantee jobs. The rapid rise in the number of younger workers which can be anticipated during the next decade poses an unprecedented challenge to the Nation's ability to match a growing number of jobseekers with a corresponding increase in jobs. Since the greatest increase in employment opportunities can be expected to occur in occupations requiring high levels of skill and education, this challenge can partly be met by bringing the levels of training and education of America's present and future workers into line with the needs of the economy.

⁵ The relative equality of income between white and nonwhite women may of course reflect the greater prevalence of full-time work among the latter group.

Multiple Jobholders in May 1962

JACOB SCHIFFMAN*

A TOTAL of 3.3 million persons, or one-twentieth of all those employed, held more than one job at the same time in May 1962, according to the latest national survey on dual jobholding. Results of the survey, the first held in May, provided further evidence that the amount of dual jobholding is little affected by the month in which the information is gathered and shows no consistent relationship with the condition of the labor market, as measured by the rate of unemployment.¹

Among those most likely to have more than one job were, once more, persons whose primary job (the one at which they worked the most hours during the survey week) was in farming, in protective service occupations, or in teaching and other professions. According to industry and class of worker of principal job, they were over-represented among self-employed farmers and wage and salary workers in agriculture, construction, educational services, entertainment and recreation, and public administration, including the postal service. Of the secondary jobs, disproportionately large numbers were in self-employment, both in farm and nonfarm businesses, and in the trade and service industries.

The total number of hours worked by dual jobholders on both primary and secondary jobs was higher than for workers with one job, but dual jobholders were only a relatively small proportion of all persons working overtime during the survey week—one-seventh, or 2.2 million, of all wage and salary workers employed 41 hours or more in May 1962.

Men who had two jobs simultaneously at any time during the year 1961 had almost as high wage and salary earnings for a full week's work on their principal job as other men, and they were almost as likely to have worked a full week on this job.² Thus, at least for the weeks in the year that they worked full time, their total earnings on their primary jobs did not appear to be outstandingly lower than for other men. Women who held two jobs also had full-week earnings on their main

jobs nearly as high as for other women, but they were much less likely than other women to have worked on full-time jobs. Compared with the main job, both weekly earnings and hours worked by the dual jobholder on his secondary job were usually much smaller.

Stability in Multiple Jobholding

The rate of dual jobholding has shown considerable steadiness. Any changes that have occurred appear to be largely related to the amount of farm activity at the time of the survey (table 1). Since 1958, the rate of dual jobholding has remained between 4.5 and 4.9 percent, while the unemployment rate ranged from 5.4 to 7.5 percent. The highest rates of multiple jobholding in the past six surveys were in July 1956 and 1957, when the numbers of dual jobholders at work in agriculture were considerably greater than in other survey periods. On the other hand, persons with two jobs in nonagricultural industries represented a stable small percentage of total nonfarm employment, staying between 3.4 and 3.9 percent since 1956. When both nonfarm jobs were wage and salary, the comparable figures were even lower and ranged only between 2.8 and 3.1 percent over this period. Further evidence of this stability is attested by the steadiness in the proportion of factory workers with more than one job (table 2), despite the considerable cyclical changes in manufacturing employment.

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¹ The analysis is based primarily on information from supplementary questions in the May 1962 monthly survey of the labor force, conducted for the Bureau of Labor Statistics by the Bureau of the Census through its Current Population Survey. The data relate to the week of May 6 through 12.

Previous articles on this subject were issued as Special Labor Force Reports Nos. 9 and 18 and appeared in the October 1961 (pp. 1066-1073), October 1960 (pp. 1045-1051), and July 1959 (pp. 769-771) issues of the *Monthly Labor Review*. Summaries of earlier survey findings were published by the Bureau of the Census in *Current Population Reports*, Series P-50.

For purposes of this survey, multiple jobholders are employed persons who, during the survey week, (1) had jobs as wage or salary workers with two employers or more, (2) were self-employed and also held a wage or salary job, or (3) worked as an unpaid family worker but also had a secondary wage or salary job. Persons employed only in private households (as a maid, laundress, gardener, babysitter, etc.) who worked for two employers or more during the survey week were not counted as multiple jobholders. Working for several employers was considered an inherent characteristic of private household work rather than an indication of multiple jobholding. Also excluded were self-employed persons with additional farms or businesses and persons with any additional jobs as unpaid family workers.

² Information in this paragraph was obtained from special questions on job mobility in the February 1962 monthly survey of the labor force. Although the primary purpose of the questions was to obtain data on job-changers, limited information was obtained for persons who held more than one job at the same time during the year.

TABLE 1. AGRICULTURAL AND NONAGRICULTURAL EMPLOYMENT OF PERSONS WITH TWO JOBS OR MORE AND UNEMPLOYMENT RATE, 1956-62

Year	Unemployed as percent of civilian labor force (seasonally adjusted)	Persons with two jobs or more							
		Total		At least one job in agriculture		Two jobs in nonagricultural industries			
		Number (thousands)	Percent of all employed persons	Number (thousands)	Percent of dual job holders	Total		Two wage and salary jobs	
						Number (thousands)	Percent of total non-agricultural employment	Number (thousands)	Percent of total wage and salary nonagricultural employment
May 1962.....	5.5	3,342	4.9	868	26.0	2,474	3.9	1,749	3.1
December 1960 ¹	6.6	3,012	4.6	781	25.9	2,231	3.7	1,647	3.1
December 1959.....	5.4	2,966	4.5	829	28.0	2,137	3.5	1,533	2.9
July 1958.....	7.5	3,099	4.8	1,122	36.2	1,977	3.4	1,427	2.8
July 1957.....	4.2	3,570	5.3	1,414	39.6	2,156	3.6	1,558	3.0
July 1956.....	4.4	3,653	5.5	1,503	41.1	2,150	3.6	1,611	3.1

¹ Data for Alaska and Hawaii included beginning 1960.

NOTE: Estimating procedure made use of 1960 Census data for 1962; for 1956-60, 1950 Census data were used.

Industry

Dual jobholders with one or more of their jobs in agriculture numbered about 850,000 in May 1962 (table 3). They accounted for one-fourth of all dual jobholders, although total farm employ-

ment represented only one-thirteenth of total employment at that time. For most dual jobholders, their farm employment was an extra rather than a principal job. It is very likely that farm work may once have been their main job, but that they have since taken nonfarm jobs to

TABLE 2. INDUSTRY GROUP AND CLASS OF WORKER OF PERSONS WITH TWO JOBS OR MORE, MAY 1962

Industry group and class of worker	Persons with two jobs or more						
	Percent distribution, May 1962		As percent of all employed persons in industry of primary job				
	Primary job	Secondary job	May 1962	December 1960 ¹	December 1959	July 1958	July 1957
All industries.....	100.0	100.0	4.9	4.6	4.5	4.8	5.3
Agriculture.....	10.9	19.3	6.7	6.7	6.7	9.3	11.0
Wage and salary workers.....	3.1	5.3	6.2	6.7	7.7	13.2	12.1
Self-employed workers.....	6.3	14.0	7.5	7.6	7.2	8.1	10.7
Unpaid family workers.....	1.6	(²)	5.2	3.6	2.5	6.9	10.0
Nonagricultural industries.....	89.1	80.7	4.7	4.4	4.3	4.2	4.6
Wage and salary workers.....	82.7	65.1	5.0	4.6	4.6	4.4	4.7
Forestry, fisheries, and mining.....	1.4	.6	7.6	5.6	7.7	5.4	6.7
Construction.....	7.2	5.1	6.7	5.6	5.7	6.6	5.9
Manufacturing.....	23.1	7.0	4.6	4.0	4.3	3.9	4.3
Durable goods.....	12.7	3.1	4.5	4.4	5.0	4.1	4.2
Nondurable goods.....	10.5	3.9	4.6	3.6	3.4	3.7	4.3
Transportation and public utilities.....	6.8	4.9	5.2	4.8	4.4	4.2	4.2
Wholesale and retail trade.....	11.1	15.9	3.7	3.9	3.2	3.9	3.9
Wholesale.....	2.9	2.0	4.7	4.9	3.8	4.5	4.1
Retail.....	8.2	13.9	3.4	3.6	3.0	3.7	3.8
Eating and drinking places.....	1.4	2.9	2.9	4.6	1.6	3.0	3.2
Other retail trade.....	6.8	11.0	3.5	3.4	3.3	3.9	4.0
Service and finance.....	22.8	26.0	4.7	4.8	4.6	3.9	4.6
Finance, insurance, and real estate.....	3.4	4.4	4.2	4.2	3.8	3.3	4.5
Business and repair services.....	1.7	2.8	4.2	5.0	4.2	5.3	4.7
Private households.....	1.6	3.7	1.9	1.6	2.1	1.4	2.3
Personal services, except private households.....	1.0	1.0	2.4	2.1	2.6	2.4	4.0
Entertainment and recreation.....	1.1	4.0	7.3	8.8	7.5	10.5	9.7
Educational services.....	9.7	2.9	8.9	8.2	7.0	5.9	6.1
Professional services, except education.....	4.2	7.2	3.6	4.7	5.2	3.9	4.7
Public administration.....	10.3	5.7	9.7	7.7	8.6	7.1	8.4
Postal service.....	2.5	.6	13.7	10.8	12.6	8.5	9.6
Other public administration.....	7.8	5.1	8.9	7.0	7.6	6.8	8.2
Self-employed workers.....	5.8	15.6	3.0	2.8	2.8	3.1	3.7
Unpaid family workers.....	.6	(²)	2.9	1.1	2.0	2.2	3.9

¹ Data for Alaska and Hawaii included beginning 1960.

² Persons whose only extra job was as an unpaid family worker were not counted as multiple jobholders.

NOTE: Estimating procedure made use of 1960 Census data for 1962; for 1957-60, 1950 Census data were used.

Because of rounding sums of individual items may not equal totals.

supplement declining cash incomes from farming and now spend more hours per week in nonfarm work. In both primary and secondary farm jobs, self-employed farmers greatly outnumbered hired farm workers.

Persons with two nonfarm jobs numbered 2.5 million, of whom 1,750,000 were wage and salary workers on both jobs. Although dual jobholders are popularly thought of as having two nonfarm wage and salary jobs, this group represented only about one-half of all the multiple jobholders. Fully two-fifths of all dual jobholders were self-employed on one job—about 1 million on their second job and 400,000 on their primary job. Approximately one-half of all the self-employed jobs were in farming. That so many dual jobholders are self-employed on one job is understandable, since apparently they have more freedom than other workers in adjusting their hours of work and many of them probably have other family members who can help with the farm or nonfarm business during their absence. Also, some wage earners may prefer to keep a wage and salary job while starting a business or testing the possibilities of working for themselves. Most of the dual jobholders in nonfarm self-employment are either proprietors, professional and technical workers, or, to a lesser degree, craftsmen, and their capabilities probably increase their opportunities for extra employment. As mentioned previously, low cash income is probably an important factor for farmers.

The disproportionately large amount of self-employment among dual jobholders is particularly significant in view of the recurrent criticism that dual jobholders have jobs that would otherwise be held by the unemployed. As earlier reports have also shown, many dual jobholders are in positions that are not suitable for unemployed persons. This is particularly true for the large number who are self-employed farmers on their second job.

Among wage and salary workers, those in public administration continued to be the most likely to have extra employment. Approximately 10 percent had a second job in May 1962, with the proportion reaching about 14 percent among those who were postal workers. The work schedules of postal workers and of custodial and protective workers (guards, firemen, and policemen) frequently allow them to take second jobs, and the skills, education, and desire of professional and other white-collar workers in government for a standard of living commensurate with their occupational status probably explains why these workers have extra employment. All of these factors presumably explain the high proportion—9 percent—of dual jobholders among workers in educational services. High rates among construction workers, hired farm workers, and entertainers and recreation workers are apparently related to the practice of working for several employers during the course of a week in order to obtain a full week's work. The proportion of wage and salary workers

TABLE 3. TYPE OF INDUSTRY AND CLASS OF WORKER OF PRIMARY AND SECONDARY JOBS FOR PERSONS WITH TWO JOBS OR MORE, MAY 1962

[Numbers in thousands]

Type of industry and class of worker of primary job	Total employed	Persons with two jobs or more		Type of industry and class of worker of secondary job					
		Number	Percent of total employed	Agriculture			Nonagricultural industries		
				Total	Wage and salary workers	Self-employed workers	Total	Wage and salary workers	Self-employed workers
Total.....	68,203	3,342	4.9	645	176	469	2,697	2,176	521
Agriculture.....	5,428	364	6.7	141	109	32	223	218	5
Wage and salary workers.....	1,632	102	6.2	76	44	32	26	21	5
Self-employed workers.....	2,798	210	7.5	39	39	(1)	171	171	(1)
Unpaid family workers.....	997	52	5.2	26	26	(2)	26	26	(2)
Nonagricultural industries.....	62,775	2,978	4.7	504	67	437	2,474	1,958	516
Wage and salary workers.....	55,569	2,764	5.0	499	62	437	2,265	1,749	516
Self-employed workers.....	6,510	194	3.0	3	3	(1)	191	191	(1)
Unpaid family workers.....	697	20	2.9	2	2	(2)	18	18	(2)

¹ Self-employed persons with a secondary business or farm, but no wage or salary job, were not counted as multiple jobholders.

² Persons whose primary job was as an unpaid family worker were counted as multiple jobholders only if they also held a wage or salary job.

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

TABLE 4. OCCUPATIONAL DISTRIBUTION OF PERSONS WITH ONE JOB AND WITH TWO JOBS OR MORE, AND RATE OF MULTIPLE JOBHOLDING, BY OCCUPATION AND SEX, MAY 1962

Occupation group	Percent distribution			Persons with two jobs or more as percent of total employed in occupation group of primary job		
	Persons with one job	Persons with two jobs or more		Both sexes	Male	Female
		Primary job	Secondary job			
All occupations.....	100.0	100.0	100.0	4.9	6.4	2.0
Professional, technical, and kindred workers.....	11.3	17.8	14.4	7.5	9.6	3.9
Medical and other health workers.....	1.9	1.8	2.0	4.6	8.9	1.5
Teachers, except college.....	2.6	4.2	1.3	7.7	17.4	3.4
Other professional, technical, and kindred workers.....	6.8	11.8	11.2	8.2	8.5	6.5
Farmers and farm managers.....	4.0	6.1	14.0	7.4	7.7	1.4
Managers, officials, and proprietors, except farm.....	11.1	8.5	11.4	3.8	4.1	1.9
Clerical and kindred workers.....	15.1	10.8	7.7	3.6	8.0	1.6
Sales workers.....	6.4	5.4	7.1	4.1	5.5	2.0
Retail trade.....	3.7	2.2	3.9	3.0	4.6	1.9
Other sales workers.....	2.7	3.1	3.1	5.7	6.0	2.5
Craftsmen, foremen, and kindred workers.....	12.9	14.6	10.4	5.5	5.7	1.3
Carpenters and construction craftsmen.....	3.8	4.8	4.4	6.1	6.1	(1)
Mechanics and repairmen.....	3.1	3.6	3.3	5.7	5.7	(1)
Other craftsmen, foremen, and kindred workers.....	6.0	6.2	2.7	5.1	5.3	1.5
Operatives and kindred workers.....	17.5	16.6	12.7	4.7	6.2	.7
Drivers and deliverymen.....	3.3	4.3	6.4	6.2	6.2	(1)
Other operatives and kindred workers.....	14.2	12.3	6.3	4.3	6.2	.6
Private household workers.....	3.5	1.4	2.0	2.0	(1)	1.9
Service workers, except private household.....	9.5	9.0	10.5	4.7	7.6	2.2
Protective service workers.....	1.0	3.2	1.4	14.1	14.8	(1)
Waiters, cooks, and bartenders.....	2.6	1.5	3.2	2.8	4.5	2.2
Other service workers.....	5.8	4.3	5.9	3.7	5.4	2.3
Farm laborers and foremen.....	3.4	4.2	4.4	6.0	7.0	4.0
Laborers, except farm and mine.....	5.4	5.6	5.4	5.1	5.2	(1)

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

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

in manufacturing who had a second job (less than 5 percent) was, as usual, somewhat lower than for workers in most major industries.

The distribution of dual jobholders by the industry and class of worker of their second job differed substantially from the distribution by primary job. The biggest difference was between the proportions of dual jobholders who were self-employed on the primary job (12 percent) and on their secondary job (30 percent). Agriculture, retail trade, entertainment and recreation, and professional service, except education, were other areas in which secondary jobs were more prevalent. Although a relatively high proportion of workers in public administration and educational services had more than one job, these fields were not nearly as important as sources of extra employment.

Only 7 percent of all second jobs were in manufacturing, compared with 23 percent of the principal jobs of multiple jobholders. The preference in manufacturing for employees who can work a regular full-time week appears to be one of the main reasons why few persons can find extra jobs in this industry. About 230,000 workers had

second wage and salary jobs in manufacturing, including only 80,000 who were also factory workers on their principal job.

Personal Characteristics

Men are much more likely to hold second jobs than women. In May 1962, the percent of employed men with more than one job (6.4 percent) was about three times as great as for employed women (2.0 percent)—a ratio which has remained fairly constant in recent surveys. Men between 25 and 44 years of age had a higher rate of dual jobholding (7.6 percent) than persons of other ages. Most men in these ages are married and have family responsibilities; their opportunities for extra jobs may be good because of their skills and experience. For all married men (spouse present) the rate was 7.0 percent, compared with 4.2 percent for single men. Among employed women, however, there was no significant difference in the percentage with two jobs for married women (1.7 percent) and for single women (2.0 percent).

The dual jobholding rate for nonwhite men was 5.6 percent, compared with 6.5 percent for white

TABLE 5. MAJOR OCCUPATION GROUP OF SECONDARY JOB, BY MAJOR OCCUPATION GROUP OF PRIMARY JOB FOR PERSONS WITH TWO JOBS OR MORE, MAY 1962

[Percent distribution]

Major occupation group of primary job	Secondary job											
	All occupation groups	Professional, technical, and kindred workers	Farmers and farm managers	Managers, officials, and proprietors, except farm	Clerical and kindred workers	Sales workers	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Private household workers	Service workers, except private household	Farm laborers and foremen	Laborers, except farm and mine
All occupation groups.....	100.0	14.4	14.0	11.4	7.7	7.1	10.4	12.7	2.0	10.5	4.4	5.4
Professional, technical, and kindred workers.....	100.0	52.7	8.9	12.4	4.9	8.2	2.9	2.5	1.2	3.9	0.5	2.0
Farmers and farm managers.....	100.0	3.4	1.0	9.3	9.3	4.4	13.2	30.9	-----	3.9	17.2	7.4
Managers, officials, and proprietors, except farm.....	100.0	13.4	14.4	27.1	13.7	10.2	3.5	9.5	1.8	3.5	-----	2.8
Clerical and kindred workers.....	100.0	9.1	9.1	12.5	30.5	8.3	2.8	10.0	3.3	12.5	-----	1.9
Sales workers.....	100.0	14.0	7.3	14.5	11.7	17.9	5.6	10.1	3.9	5.6	-----	9.5
Craftsmen, foremen, and kindred workers.....	100.0	4.5	20.0	11.9	3.1	6.7	33.5	8.4	.6	5.7	1.4	4.1
Operatives and kindred workers.....	100.0	4.7	24.1	7.4	2.9	5.8	12.0	23.0	.9	9.4	4.0	5.9
Private household workers..... ⁽¹⁾	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Service workers, except private household.....	100.0	4.0	7.7	7.0	.7	4.3	7.7	13.7	7.3	37.7	2.3	7.7
Farm laborers and foremen.....	100.0	-----	20.7	-----	.7	2.1	4.3	11.4	2.1	4.3	45.0	9.3
Laborers, except farm and mine.....	100.0	2.7	20.9	7.5	3.2	1.6	6.4	20.9	2.1	13.4	4.3	17.1

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

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

men, and the rates for women were 3.1 percent for nonwhites and 1.8 percent for whites.

Occupation

The two major occupation groups of professional and technical workers and of farmers had the highest proportions of dual jobholding in May 1962 (table 4). Together, they comprised about 25 percent of all dual jobholders but only 15 percent of all employed persons. These two occupation groups include both persons whose cash incomes are relatively high and others whose cash incomes are low. Other groups of workers with high rates of dual jobholding were drivers and deliverymen, carpenters and construction craftsmen, and farm laborers; among protective service workers, 1 out of 7 had a second job.

In all occupation groups for which information was available, the proportions of dual jobholders were higher for men than for women, and usually the difference was very marked. Among clerical workers (including postal workers) and among teachers below the college level, the proportion of multiple jobholders was about five times as great for men as for women. As many as 1 out of 6 men teachers had a second job.

The occupational distribution of secondary jobs was somewhat different from that of principal

jobs. Fewer dual jobholders were professional workers on their second than on their first job, reflecting the large number of teachers with spare jobs, compared with the number of secondary jobs in this field. Similarly, fewer persons had second jobs than first jobs in the clerical field, due partly to the high proportion of postal workers with extra employment. Likewise, more dual jobholders were craftsmen and operatives (except drivers and deliverymen) on their first than on their second job. The opposite situation existed among retail salesmen because of opportunities for extra part-time work in the selling field, and among farmers and managers, officials, and proprietors because of their opportunities for extra part-time work in self-employment.

A strong relationship existed between the first and second jobs of dual jobholders. Although only 30 percent of all dual jobholders had their primary and secondary jobs in the same major occupation group, the second job was much more likely to be in the same group as the first than in any other single occupation group. A much higher proportion of white-collar workers (professionals; managers, officials, and proprietors; and clerical and sales workers) than other workers had their secondary jobs in one of the white-collar occupations (table 5). About one-half of all professionals had their second job in a profession, and

most of the rest were in another white-collar occupation; approximately three-fifths of all other white-collar workers had second jobs in the white-collar field. Craftsmen, operatives, and nonfarm laborers were very likely to work in one of these blue-collar occupation groups or as farmers. Similarly, most farmers had their second jobs in one of the blue-collar occupations. Approximately half of the farm laborers with extra jobs had their second jobs in the same occupation, and about the same proportion of service workers (excluding domestics) were service or private household workers on their secondary jobs.

Hours of Work and Earnings

More than two-thirds of all multiple jobholders worked full time (35 hours or more) on their principal job and part time on their extra job; one-fourth worked part time on both jobs and only a very few (about 6 percent) had two full-time jobs (table 6). Men dual jobholders were much more likely to have at least one full-time job (four-fifths) than were women (one-half). Full-time jobs were more common for persons with primary jobs as wage and salary workers in manufacturing, transportation, and public administration; they were less

common for the nonfarm self-employed and for wage and salary workers in construction and service.

The median number of hours worked by dual jobholders on both jobs was 52. The workweek ranged from 60 hours for dual-jobholding farmers and 55 hours for wage and salary workers in manufacturing to 46 and 48 hours for employees in construction and service, respectively.

Dual jobholders worked 12 hours on the average on their secondary jobs during the May survey week. Hours on second jobs were longest for workers whose principal jobs were as farmers or wage and salary workers in public administration and durable goods manufacturing or whose extra jobs were as farmers or factory employees. Men averaged 13 hours on their second job as compared with 10 hours for women.

About three-fourths of the dual jobholders worked a total of 41 hours or more as against about a third of the workers with one job. The difference was greatest among wage and salary workers with primary jobs in public administration, where few single jobholders work over 40 hours, and in manufacturing, where nine-tenths of the dual jobholders worked these long hours compared with about one-fourth of other factory

TABLE 6. PERSONS AT WORK ON TWO JOBS OR MORE BY FULL- AND PART-TIME STATUS ¹ AND MEDIAN HOURS WORKED, BY MAJOR INDUSTRY GROUP, MAY 1962

Industry and class of worker	Percent distribution of persons at work on both jobs, by full- and part-time status ¹ by industry of primary job				Median hours		
	Total	Full time on both jobs	Full time on primary job, part time on secondary job	Part time on both jobs	On both jobs, ² by industry of primary job	On secondary job	
						By industry of primary job	By industry of secondary job
All industries.....	100.0	5.7	69.2	25.0	52	12	12
Agriculture ³	100.0	5.0	54.3	40.7	57	13	14
Wage and salary workers.....	(⁴)				(⁴)	(⁴)	11
Self-employed workers.....	100.0	6.2	69.3	24.5	60+	16	15
Nonagricultural industries.....	100.0	5.8	71.0	23.2	52	12	12
Wage and salary workers ⁵	100.0	5.9	72.1	22.0	52	12	12
Construction.....	100.0	4.3	60.6	35.1	46	12	13
Manufacturing.....	100.0	7.9	81.5	10.6	55	13	16
Durable goods.....	100.0	10.7	82.7	6.7	56	15	(⁴)
Nondurable goods.....	100.0	4.2	80.4	15.4	53	11	14
Transportation and public utilities.....	100.0	5.2	78.4	16.3	53	13	14
Wholesale and retail trade.....	100.0	2.9	71.1	26.0	52	12	13
Service and finance.....	100.0	5.2	62.1	32.7	48	11	9
Public administration.....	100.0	6.5	77.7	15.8	53	15	12
Self-employed and unpaid family workers ⁶	100.0	4.6	55.4	40.1	50	11	12

¹ Workweeks of 35 hours or more were counted as full time; those of less than 35 hours, as part time.

² Includes dual jobholders not at work on secondary job during the survey week.

³ Includes a small number of persons who were unpaid family workers on their primary jobs, not shown separately.

⁴ Percent and median hours not shown where base is less than 100,000.

⁵ Includes a small number of workers in forestry, fisheries, and mining, not shown separately.

⁶ Unpaid family workers comprise a very small proportion of this group.

⁷ Relates only to persons who were self-employed on secondary jobs. Persons whose only additional job was in unpaid family work were not counted as multiple jobholders.

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

workers. There was considerably less difference in the hours of single and dual jobholders among both the farm and nonfarm self-employed, since persons operating their own farms or businesses characteristically work long hours.

Although dual jobholders were much more likely to work a large number of hours than other workers, they accounted for a relatively small proportion—less than one-seventh—of all persons in May who worked a total of 41 hours or more during the week.

A comparison of the hours worked on the primary job by dual jobholders and by those with only one job shows that the proportion who worked 35 hours or more on their primary job was somewhat—but not markedly—lower for dual jobholders (75 percent) than for workers with only one job (81 percent). At least with respect to men, it would appear that a short workweek alone does not explain why most workers take extra jobs. The median workweeks were 38.5 hours for

all dual and 38.8 for all single jobholders, 39.0 and 39.6 hours for men, and 32.1 and 37.3 hours for women.

Information obtained for the first time on earnings of dual jobholders indicates that, for both men and women, the median wage and salary earnings on the primary job for a full week's work were only slightly smaller for dual than for single jobholders:³

	Median weekly wage and salary earnings in 1961	
	Male	Female
Dual jobholders:		
Secondary job.....	\$35	\$22
Primary job, total.....	94	36
Usually full time.....	106	64
All wage and salary workers who worked year round full time ¹	112	66

¹ Data were obtained by dividing annual median wage or salary income (unpublished data of the Bureau of the Census) by 51.

Furthermore, since male dual jobholders were almost as likely as other men to have worked full time on their principal jobs, their yearly earnings for full weeks worked on their main job were probably not markedly lower than for other men. Earnings on second jobs were considerably lower than on first jobs, if for no other reason than the considerable difference in hours worked.

Work Schedule

Information obtained on the work schedules of dual jobholders reaffirmed the preceding survey's finding that most dual jobholders are not "moonlighters" on their extra jobs (table 7). Only 32 percent of the dual jobholders in May 1962 were reported as working "mostly at night" on these jobs; the largest proportion (44 percent) worked mostly during weekday working hours, and 24 percent worked mostly on weekends.

The proportion working mostly during weekday working hours was highest among those with secondary wage and salary jobs in farming and construction, where most work has to be done during the daylight hours,² and in transportation. Night schedules were more frequent in service industries (hotels, entertainment, and so forth) and trade, and among the nonfarm self-employed who are more able than others to adjust their hours on a second job. One-half of those with

TABLE 7. WORK SCHEDULE ON SECONDARY JOB,¹ BY INDUSTRY AND CLASS OF WORKER OF SECONDARY JOB FOR PERSONS AT WORK ON TWO JOBS OR MORE, MAY 1962

[Percent distribution]

Industry and class of worker of secondary job	Total at work on two jobs or more	Work schedule ¹ on secondary job		
		Mostly at night	Mostly on week-ends	Mostly during week-days
All industries.....	100.0	31.7	24.4	43.9
Agriculture.....	100.0	18.1	27.8	54.2
Wage and salary workers.....	100.0	8.3	17.9	73.8
Self-employed workers.....	100.0	21.8	31.5	46.7
Nonagricultural industries.....	100.0	35.1	23.6	41.3
Wage and salary workers ²	100.0	33.6	22.8	43.5
Construction.....	100.0	15.9	18.1	65.9
Manufacturing.....	100.0	33.9	16.1	50.0
Durable goods.....	(3)			
Nondurable goods.....	(3)			
Transportation and public utilities.....	100.0	23.8	4.8	71.4
Wholesale and retail trade.....	100.0	38.4	27.0	34.6
Wholesale.....	(3)			
Retail.....	100.0	42.5	30.1	27.4
Service and finance.....	100.0	37.4	26.7	35.9
Private households.....	100.0	26.2	21.5	52.3
Educational services.....	(3)			
Other service and finance.....	100.0	40.1	31.2	28.6
Public administration.....	100.0	25.4	18.3	56.3
Postal service.....	(3)			
Other public administration.....	100.0	25.8	21.0	53.2
Self-employed workers.....	100.0	41.0	26.7	32.3

¹ Nightwork refers to work done primarily between the hours of 6 p.m. and 6 a.m., Monday through Friday; weekday working hours relate to those between 6 a.m. and 6 p.m., Monday through Friday; weekend work is done on Saturday or Sunday, whether at night or during the day.

² Includes workers in forestry, fisheries, and mining, not shown separately.

³ Percent not shown where base is less than 100,000.

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

³ See footnote 2.

TABLE 8. MAJOR OCCUPATION GROUP OF SECONDARY JOB FOR PERSONS WITH TWO JOBS OR MORE AND OF LAST FULL-TIME JOB FOR UNEMPLOYED PERSONS, MAY 1962

[Thousands of persons]

Major occupation group	Secondary job of persons with two jobs or more			Last full time job of unemployed persons ¹
	Total	Self-employed on secondary job	Wage and salary on secondary job	
All occupations.....	3,342	990	2,352	3,121
Professional and technical workers, managers, officials, and proprietors, except farm.....	862	360	502	224
Professional and technical workers, Managers, officials, and proprietors, except farm.....	482	127	355	121
Professional and technical workers, Managers, officials, and proprietors, except farm.....	380	233	147	103
Clerical and sales workers, craftsmen, operatives, service workers, and laborers.....	2,013	170	1,843	2,892
Clerical workers.....	258	11	247	331
Sales workers.....	237	31	206	164
Craftsmen.....	346	67	279	427
Operatives.....	424	21	403	923
Service workers, including private household.....	418	23	395	509
Laborers, except farm and mine.....	182	15	167	460
Farm laborers.....	148	2	146	78
Farmers and farm managers.....	467	460	7	5

¹ Data relate only to unemployed persons who at some time held a full-time civilian job for a period of at least 2 weeks.

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

in white-collar and service occupations than those in blue-collar occupations.

Unemployment and Multiple Jobholding

Approximately 3.7 million persons were unemployed in May 1962. The question as to how many of these persons would be employed if dual jobholders relinquished their second jobs is obviously important. However, a close examination of the kinds of extra jobs held by dual jobholders and the kinds of jobs for which the unemployed are looking indicates that only a relatively small proportion of the second jobs would be suitable for the unemployed. Approximately 500,000 persons had extra wage or salary jobs as managers and professionals—about 300,000 more than the number of unemployed who had had this kind of job experience (table 8). There were also about 1 million persons who had extra jobs operating their own farms or businesses. Of the approximately 2 million secondary jobs remaining, those suited to the unemployed would probably be cut considerably because of such factors as locations of jobs and jobseekers, the matching of jobs usually held only by men or by women, and problems in qualifying for particular jobs. Also, spare jobs are typically for only a small number of hours (only 75,000 were full time) with commensurately low earnings, and the periods of employment are often short and intermittent. Furthermore, much of the extra employment that would presumably be given up by dual jobholders might be distributed as overtime work among existing employees rather than given to unemployed persons.

secondary jobs in manufacturing worked mostly during weekday working hours, and one-third worked mostly at night.

Just as nightwork was most common among persons with secondary wage or salary jobs in trade and service industries or with extra jobs in nonfarm self-employment, it was most likely among persons whose occupations were more common in these industries. Thus, nightwork was performed more by persons with extra jobs

Summaries of Studies and Reports

An Inquiry Into Canada's Unemployment Insurance System

THE HISTORY of Canada's national system of unemployment insurance parallels that of the Federal-State system in the United States.¹ Both systems developed under the influence of the depressions of the 1930's; during World War II and in the prosperous years immediately following, services under both of them were in little demand because of low unemployment; the large accumulations of unemployment insurance funds during wartime and the period of postwar prosperity enabled the programs of the two countries to weather the early postwar recessions without difficulty; the funds then sharply declined as unemployment increased in recent years and became more persistent. Furthermore, the systems of both countries have built-in rigidities which have prevented them from adjusting readily to changing needs. In short, the unemployment insurance financial experiences of Canada and the United States are remarkably similar.

In July 1961, the Canadian Government appointed a Committee of Inquiry, headed by Ernest C. Gill, president of the Canada Life Insurance Co., and charged it with "a thorough review and analysis of the provisions of the Unemployment Insurance Act and its relation to other social security programs . . . in the light of developments . . . since the act was passed in 1940". The Committee's recently published report² is the first comprehensive review of the Canadian program since its inception. The major recommendations contained in the report are discussed in this article and—where relevant—comparisons with corresponding elements in the U.S. system are drawn.

Coverage

The report recommends that the unemployment insurance plan cover all employees who are in an

employer-employee relationship insofar as coverage is administratively practicable. Judging from the data contained in the report on covered workers and the level of total employment, it would appear that about one-fourth of those in an employer-employee relationship are presently excepted from coverage, the same proportion that is excluded in the United States. The excepted groups are "permanent" employees of municipal and Federal governments; employees of Provincial governments (except those optionally covered), employees of nonprofit hospitals and charitable institutions, teachers, members of some police forces, members of the Armed Forces, agricultural employees, and domestic servants. The report recommends immediate or ultimate coverage of all these groups except members of the Armed Forces and the Royal Canadian Mounted Police.

Of the specific groups presently excepted from coverage under Canada's program, only Federal employees and members of the Armed Forces are universally covered under the U.S. system. An additional coverage exclusion in the United States, employment in small firms (employing fewer than four people), has no counterpart in the Canadian system, but more than a third of our States do cover this employment. A few States cover some or all of the groups of employees which are excepted from coverage under the Canadian system, including domestic servants (two States) and agricultural employees (one State).

Coverage is also recommended in the report for another broad class—salaried employees, regardless of industry or occupation, earning more than \$5,460 a year. Although the earnings exclusion (originally \$2,000) has been raised from time to time by legislative enactment because of increased earnings levels, the last such increase (1959) came

¹ Basic legislation in Canada and the United States was enacted in 1935, but the Canadian law was subsequently held unconstitutional. After constitutional difficulties were overcome, a law erecting the basic framework of the present system was passed in 1940.

² *Report of the Committee of Inquiry Into the Unemployment Insurance Act* (Ottawa, Canada, Queen's Printer, November 1962).

only after close to 10 years had elapsed. In the interim, salary increases removed employees from coverage and their contribution was lost to the unemployment fund. The U.S. system does not exclude employees from coverage on the basis of earnings, but a similar rigidity, which affects the financing of the program, does exist here and is discussed under that subject.

The report recommends a new exemption from coverage—persons under 18 years of age—because “persons below this age are, for the most part, still at school and their entry into the labor market is likely to be on a part-time basis only, perhaps during holidays, on Saturdays, or after school.” The attempts of a few States in the United States to exempt students from coverage have generally been unsuccessful, due in part perhaps to employers’ resistance or refusal to maintain separate payroll records but mainly to their coverage in the Federal law. In consequence, the emphasis here has been placed on provisions which deny benefits to students.

Financing

From the beginning, the cost of unemployment insurance benefits in Canada has been financed by equal contributions from employees and employers, plus a Government contribution from general taxation equal to one-fifth of the combined employer-employee contribution. In contrast, the United States system is financed entirely by contributions from employers except that three States require employee contribution. The report recommends that the Government contribution be discontinued, at least so far as the funds for benefits are concerned, on the grounds that universal coverage for all employees in an employer-employee relationship would ensure protection for nearly all those who might suffer unemployment. Consequently, these groups should bear the entire cost, and other members of the community, mainly the self-employed, should not be required to share in it.

³ The major reasons which the Committee gave for recommending continuation of general pooling were that frictional unemployment for which unemployment insurance can be held responsible is normal and not the result of management decisions; merit rating would put Canada's basic industries, where frictional unemployment is heaviest, at a competitive disadvantage in international markets; merit rating would create serious administrative problems in an employer-employee financed system; the arguments in favor of merit rating contain inconsistencies; and the existence of merit rating would encourage undesirable employment practices on the part of some employers.

The contribution shared equally by employer and employee is now determined upon the employee's actual earnings. The amount paid by each is determined by weekly earnings classes (in \$6 intervals) up to a broad top class of \$69-\$105. This ceiling is the statutory earnings limitation on coverage. A lower percentage of wages is required in contribution at higher earnings than at lower; the rate of contribution ranges from about 1 to 2 percent of the earnings. This means a combined employer-employee contribution of about 2 to 4 percent of taxable earnings.

Also recommended is the addition of an open-end weekly earnings class (\$80 and up) as the top earnings level, with a weekly contribution of \$1.05 established for this class. In effect, this recommendation would transfer the rigidity that limited coverage by a ceiling on earnings to the contribution arrangement. A similar rigidity exists in the United States system, created by the statutory limitation on the amount of wages that may be taxed. As noted, Canada has over the years adopted legislation that raised the earnings limitation on coverage; no similar increases, except in a few States, have been made in the ceiling on taxable wages in the United States. In consequence, the proportion of total payroll supporting the unemployment insurance system has substantially declined in this country.

The Committee estimated that the amended contribution schedule will support an average annual unemployment rate of 6 percent. It recommended Government loans to the unemployment fund when necessary to ward off insolvency in a year when benefit payments exceed income. The fund would be expected to repay the loan from excess income in good years. With regard to the merit rating of contribution rates on the basis of unemployment experience by employer or by industry, the Committee noted that this practice prevailed under the plans in effect in the United States but in no other country. The Committee offered some cogent reasons for not adopting merit rating and recommended that general pooling of the risk be continued.³

In Canada, the funds to finance the cost of administering the unemployment insurance system and the national employment service come from the general treasury. In the United States, these programs are financed from a fixed portion of the unemployment tax rate. The Committee

of Inquiry recommended retention of the present procedure of financing administrative costs from general taxation.

Qualification for Benefit

Perhaps in few other features do the Canadian and United States systems differ as sharply as they do in the amount of employment required to qualify an unemployed worker for regular benefits.⁴ The Canadian requirement is much more stringent and the report's recommendations would heighten the contrast. Originally, 180 days of contribution were required in the 2 years preceding the establishment of a benefit period.⁵ Theoretically, this meant that the equivalent of about 30 full weeks of employment were required to qualify for benefits.

The present requirement, enacted in 1955, calls for 30 weeks of contribution in the 2 years preceding establishment of a benefit period, including 8 weeks of contribution in the immediately preceding year. This requirement equates a week of partial employment with a full week of work. Even this modification of the original is more stringent for some persons than present requirements in the United States, which generally do not exceed 20 weeks of employment in the base year (or its equivalent in earnings) and are much less than 20 weeks in some States.

The Committee of Inquiry recommends a return to the original requirement of 30 full weeks of employment in insured work (or the equivalent in broken weeks) in the 2 years preceding the claim, and the equivalent of 20 full weeks of employment in the year preceding the claim.

The report recommends repeal of a special program known as "seasonal benefit," now supplementing the basic program of regular insurance. The report points out that the program is erroneously described as seasonal since it does not apply exclusively to seasonal workers. Originally, the program was in effect during the first 3 months of the year. It now makes benefits available during the period from December 1 to the subsequent May 15, under conditions which represent a considerable reduction in the regular qualifying requirement. Persons who can show some attachment to insurable employment but cannot meet the regular qualifying requirement and per-

sons who have exhausted their benefits under the regular program may be eligible for seasonal benefit. The basic framework of this special program was adopted in 1950. No permanent program of this kind has been adopted in the United States, although benefit duration has been temporarily extended for those who exhausted their regular benefit during recent business recessions.

Rate of Benefit

The variation in the method of computing the weekly rate of benefit in the Canadian program has had a complex history, associated with adjustments in the contribution rates and the lifting of the coverage ceiling on earnings over the years. The benefit is set by earnings classes. At present, it ranges from \$6 to \$27 for a single claimant and from \$8 to \$36 for a claimant with any number of dependents supported wholly or mainly by the claimant.

The benefit represents about 50 percent of average weekly gross earnings for those with dependents and about 38 percent for single persons, although the percentage relationship for each of these groups is somewhat higher in the lower earnings classes. In contrast, the objective under the U.S. system is to provide a weekly benefit representing at least 50 percent of earnings for the great majority of eligible claimants regardless of dependency status. In most States, benefits for claimants receiving less than the maximum meet the objective. The goal has not yet been reached for the great majority of States because the maximum in most of them is too low. For example, in 1962, nearly 45 percent of all eligible claimants were concentrated at the maximum weekly benefit amount. A few State laws provide additional allowances based on the number

⁴ See "Unemployment Insurance Legislation in 1962," *Monthly Labor Review*, November 1962, pp. 1257-1261.

⁵ To simplify this discussion, references to the additional requirements imposed on those who had previously established entitlement to benefits within the 2-year period are omitted. An additional requirement is intended to ensure that a claimant has had some employment in covered work since he last received a benefit. Originally, the additional requirement in Canada was 60 days of contribution since the last day of benefit in the last preceding benefit year. The additional requirement is now 8 weeks of contribution since commencement of the last benefit year. The same day or week of contribution may be used in meeting the regular as well as the additional requirement. A number of States have similar additional requirements.

of dependents and, in some cases, on the amount of earnings.

The report of the Committee of Inquiry recommends that the weekly benefit for persons with dependents be increased to 60 percent of earnings and that of single persons be increased in a consistent manner—to about 45 percent. Under this arrangement, and with the addition of a new top earnings class (\$80 and up), the maximum weekly benefit for claimants with dependents would amount to \$48 and that of single persons to \$36. In the United States, the maximum without dependents ranges from \$30 to \$55 and with dependents (12 States), from \$44 to \$70.

The report recommends against relating the weekly benefit to the number of dependents because there exists a program of family allowances within the general social security system which provides an allowance for each child under a specified age regardless of family income.

Under the present program, a Canadian claimant's weekly benefit is reduced by any earnings he receives in excess of one-half of his benefit rate. The report recommends lowering this earnings allowance to one-fourth of the benefit rate. It also recommends that termination pay and payments of supplemental unemployment benefits (SUB) achieved through private arrangements be treated as though they were earnings for purposes of computing the benefit payable in a week. In this country, the States differ widely in their treatment of part-week earnings and termination payments, but most of them permit concurrent receipt of SUB payments and the weekly benefit.

Duration of Benefits

Except for the interval between 1955 and 1959, when benefits could be drawn for only 36 weeks, maximum benefit duration under the Canadian system has seen little change. In the beginning, maximum duration was 1 year, including a 9-day waiting period; it is now 52 weeks, including a 1-week waiting period. In contrast, maximum duration in the United States started at a very low figure (12–15 weeks) and has advanced to 26 weeks or more in most States.

The Committee recommended that maximum duration be reduced to 26 weeks, finding this reduction "justifiable if the insurance plan is to be

confined to unemployment that is insurable." It compensated to a large extent for the reduction in maximum duration by recommending a special program of extended benefit (discussed in greater detail hereafter) which would replace the seasonal benefit. The Committee also called for a tightening of the duration formula, allowing 1 week of benefit for each 2 full weeks (or the equivalent in broken weeks) of contribution in the 52-week period (rather than the present 2 years) preceding the claim. Considering the qualifying requirement recommended, this formula would yield a minimum duration of 10 weeks. Retention of the present waiting period of 1 week is recommended.

Extended Benefits and General Assistance

To compensate for its proposal that maximum benefit duration be reduced from 52 to 26 weeks and that the seasonal benefit be eliminated, the Committee recommended a plan of extended benefits to absorb the main impact of unemployment continuing beyond the period covered by unemployment insurance. The cost of the extended benefits plan would be met by the National Government from general taxation. The plan would work parallel with a concerted effort, through a national employment program, to remove the causes of persistent unemployment. It would occupy a middle position between unemployment insurance and public assistance.

In brief, under the Committee's recommendation, individuals who had exhausted their unemployment insurance benefits would be eligible for extended benefits, as would also persons affected by the seasonal regulation under special conditions and limitations. However, extended benefits would not be made available to married women who are not the sole supporters of their households, to persons over the age of 70 who are receiving a pension under the Old Age Security Act, and to persons under the age of 18. (Elsewhere in the report, special treatment for unemployed youth, outside the unemployment insurance plan, is suggested.)

Duration of extended benefits would be related to a claimant's work record. The report recommends that a claimant be entitled to a maximum period of extended benefits equal to $1\frac{1}{2}$ times his

unemployment insurance entitlement in the last preceding insurance benefit period. Extended benefits would thus vary from a minimum of 15 weeks to a maximum of 39 weeks. The maximum possible duration in combined insurance benefits and extended benefits would add to 65 weeks.

Under the extended benefits plan, the concept of suitable employment would be broadened beyond that appropriate to the insurance plan. In general, a claimant would be expected to accept employment for which he is "reasonably capable, whether it is the same as his customary employment or not."

As already mentioned, the Committee noted that an extended benefits plan should be accompanied by vigorous efforts on the part of the National Employment Service to solve the problems of extended unemployment. It should give its attention to such problems as that of adjustment to technological changes and occupational shifts and to retraining programs. These recommendations resemble emphases in employment security which have developed in the U.S. system in the past few years.

The report notes that the general assistance plan, in which the cost to the Provinces is shared by the National Government under the Unemployment Assistance Act, has developed to the point where it should serve as a program for any residual unemployment. It calls for efforts to continue the improvement and development of the existing assistance plans toward this objective. The United States does not have a comparable program, although a few States do have a general assistance program available to help the unemployed.

Benefit Eligibility

Programs in both Canada and the United States require that claimants be able to work and be available for employment in order to be eligible for unemployment insurance. In the absence of a job offer, the test of availability is difficult to apply. Uncertainty regarding the availability for work of certain categories of claimants has given rise among various State systems in the United States to provisions restricting these categories' eligibility for benefits. The Committee of Inquiry singled out and recommended special treatment for four such groups—

married women, pensioners, seasonal workers, and persons undergoing training.

Married Women. The report recommends that a married woman with children below school age be considered unavailable for employment unless she can prove that she has made satisfactory arrangements for the care of the children.

At present, pregnant women are held to be unavailable for work under the Canadian law for 6 weeks before expected confinement and for 6 weeks after confinement and may not receive benefits during this period. The report recommends lengthening of the 6-week periods to 8 weeks each; termination of employment because of pregnancy would commence the period of ineligibility earlier than 8 weeks before expected confinement. The Committee commented that maternity benefits, if desirable as a social goal, should be provided separately in the general social security system and not by unemployment insurance.

Pensioners. The Committee's view is that "unemployment resulting from compulsory retirement pursuant to an employer-employee pension plan is not a type of unemployment that was ever intended to be covered by an insurance plan." Nevertheless, the report recognized that some persons with very small pensions are not relieved of the economic necessity of earning a living. It recommended that a pension received under an employer-employee pension plan be treated as deductible earnings for purposes of determining the unemployment insurance benefit.

Seasonal Workers. During the history of the Canadian program, many efforts have been made, through administrative procedures adopted under statutory authority, to limit or avoid the payment of benefits to persons in the off-season of their normal employment. There are now no restrictions on such payments. At present, 17 States here regulate the payment of benefits to seasonal workers.

The report recommends adoption of a procedure similar to that in effect in Great Britain. Under the procedure recommended, a claimant's record would be scanned for the 2-year period preceding the claim. Any gap of 5 weeks or more in his contribution during the first year of the period

that is matched by a corresponding gap at the same place in the calendar during the year preceding the claim would establish an off-season for the claimant. He would be unable to receive benefits in each off-season established for him during his benefit period. This provision would be modified to accommodate new entrants and newly covered persons.

Claimants Taking Training. In recent years, a number of States in this country have adopted provisions permitting continued payment of unemployment insurance benefits to claimants taking approved training courses when directed. Some State action in this respect was influenced by provisions of the Federal Area Redevelopment Act and the Manpower Development and Training Act. Previously, the general practice had been to hold claimants taking training unavailable for employment. In Canada at present, claimants are eligible for benefits while taking directed training. The Canadian Committee of Inquiry recommended that claimants directed to take training should cease receiving unemployment insurance benefits, but that living allowances should be provided for them as part of a general vocational training program.

Administrative Organization

When the Canadian Unemployment Insurance Commission was formed, a National Employment Service (NES) was created and brought under the Commission in a subordinate role. The Committee of Inquiry recommended that the NES be transferred to the Department of Labor, where it can take a leading position in the design and operation of national manpower policy. In the past few years, somewhat similar results have been achieved in the United States through a reorganization of employment security activities

at the national level and the physical separation of employment service and unemployment insurance activities in large cities. These actions have sharply emphasized the distinctive roles of unemployment insurance and the public employment service, although the two programs remain united in the same parent organization. Under the recommendation of the Committee of Inquiry, the local offices of the NES would continue to administer the unemployment insurance plan, as they do now, but operating as agent for the Unemployment Insurance Commission in paying insurance and extended benefits. The report notes that an administrative organization of this type is in effect in the United Kingdom and appears to operate efficiently.

Conclusion

The Committee of Inquiry made a number of recommendations which have not been covered here, many of them dealing with administrative matters. Those included in this discussion adequately illustrate the considerable change that their adoption would introduce into the Canadian unemployment insurance system. This change is designed to confine the unemployment insurance system to the role of absorbing the first impact of unemployment, with its financing put on the basis of "insurance principles appropriate to a social insurance scheme." The newly proposed extended benefits program and the recommended expansion of general assistance, added to the insurance plan, would, if enacted into law, provide Canada with a relatively comprehensive program of wage-loss protection for her unemployed workers. The Committee's recommendations now await consideration by the Parliament.

—ALBERT B. RATCLIFF
Bureau of Employment Security

Earnings in Electric and Gas Utility Systems, July 1962

STRAIGHT-TIME HOURLY EARNINGS of the estimated 405,300 nonsupervisory workers in privately operated electric and gas utility systems averaged \$2.73 an hour in July 1962, according to a study conducted by the Bureau of Labor Statistics.¹ The 290,115 physical (plant) workers,² virtually all men, averaged \$2.86 an hour. Women, accounting for three-fifths of the office workers,³ averaged \$2.16; the corresponding average for men in office jobs was \$2.80.

Data are presented separately for physical and office workers in four types of utility systems: electric, gas transmission, other gas systems including those engaged in both the distribution and transmission of gas, and systems providing both gas and electric services. Information is also provided for selected regions, occupations, and supplementary wage benefits, such as paid holidays and vacations, life and health insurance, and pension benefits.

Labor management agreements covering a majority of the physical workers were in effect in systems employing about four-fifths of such workers. About two-fifths of the office workers were employed in systems having agreements covering a majority of the nonsupervisory office workers. Regionally, the proportion of office workers employed under agreement terms ranged from less than a tenth in the Southeast and Southwest to two-thirds in the Middle Atlantic region.

Earnings

Average straight-time hourly earnings of all nonsupervisory workers ranged from \$2.29 in the Southwest to \$3.02 in the Pacific region. (See accompanying table.) Average earnings of \$2.87 an hour were recorded for the Great Lakes region, which accounted for about one-fourth of the workers. In the other five regions for which wage data are presented, average hourly earnings ranged from \$2.47 in the Southeast to \$2.69 in New England.

Physical workers—seven-tenths of the nonsupervisory work force within scope of the survey—averaged \$2.86 an hour. The earnings of indi-

vidual workers ranged from less than \$1.50 (1.6 percent) to \$3.50 and over (13.2 percent). Regionally, average earnings for physical workers ranged from \$2.42 in the Southwest to \$3.01 and \$3.13 an hour in the Great Lakes and the Pacific regions, respectively. Among the four types of systems surveyed, nationwide hourly averages were highest (\$2.98) in the combination (electric and gas) systems and lowest (\$2.60) in gas systems other than gas transmission. Electric utilities, however, provided the highest pay level for physical workers in the Great Lakes, Middle West, and Pacific regions.

Nonsupervisory office workers averaged \$2.42 an hour, with regional averages ranging from \$2.03 in the Southwest to \$2.76 in the Pacific. Men office workers averaged about 30 percent more than women—\$2.80 compared with \$2.16 an hour. Their earnings were more similar to those of physical workers than to women office workers both with respect to averages (\$2.80–\$2.86) and distributions, as indicated in the following tabulation:

		Percent of workers earning—					
		Less than \$1.50	\$1.50 and under \$2.00	\$2.00 and under \$2.50	\$2.50 and under \$3.00	\$3.00 and under \$3.50	\$3.50 and over
Office:							
Men.....	2.3	8.3	17.6	33.6	27.7	10.7	
Women....	11.2	29.7	33.4	18.5	6.1	1.1	
Physical.....	1.6	5.2	16.5	35.8	27.7	13.2	

NOTE: Because of rounding, sums of individual items may not equal 100.

¹ The survey included privately operated systems employing 100 workers or more and engaged in the production, transmission, and/or distribution of electricity and/or gas (industry groups 491, 492, and 493, as defined in the 1957 edition of the *Standard Industrial Classification Manual* prepared by the U.S. Bureau of the Budget).

The straight-time average hourly earnings presented in this article differ in concept from the gross average hourly earnings published in the Bureau's monthly hours and earnings series. Unlike the latter, the averages presented here exclude premium pay for overtime and for work on weekends, holidays, and late shifts, and were calculated by summing individual hourly earnings and dividing by the number of individuals. In the monthly series, the sum of the man-hour totals reported by the establishments in the industry is divided into the reported payroll totals.

A more comprehensive account of the study will be presented in a forthcoming bulletin.

² In this survey, working foremen and other nonsupervisory workers engaged in nonoffice functions are called physical workers, in accordance with industry nomenclature. Temporary or force-account construction employees utilized as a separate work force and engaged in the construction of major additions or alterations and workers employed in services other than gas or electric were excluded.

³ Office workers include all nonsupervisory office workers employed in gas and electric utilities and in other services.

Earnings data for 14 physical and 5 office occupations are presented in the accompanying table.⁴ Journeymen, linemen, gas appliance servicemen, and meter readers, the three numerically most important occupations studied, averaged \$3.33, \$2.94, and \$2.52 an hour, respectively. Combined, these occupations accounted for 15 percent of the nonsupervisory physical workers. Load dispatchers, averaging \$4 an hour, and watch engineers, averaging \$3.96, were the highest paid among the physical worker occupations studied separately. Main installation and service laborers and janitors,

porters, and cleaners received the lowest wages (averaging \$2.02, and \$2.05, respectively).

Among the women's office occupations studied separately, tabulating machine operators (class A) and secretaries had the highest average hourly earnings, \$3.01 and \$2.71, respectively. The lowest level of hourly earnings, \$1.56, was recorded for office girls. Men's average earnings for the office occupations for which comparisons could be made were higher than the averages for women. In most instances, however, the differences amounted to less than 10 cents an hour. The greater difference noted in overall averages for men and women office workers is related, in large part, to differences in employment distributions of men and women among office jobs.

⁴ The forthcoming bulletin will include data for 58 physical and 26 office occupations which together accounted for 50 percent of the nonsupervisory workers in the survey.

NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS¹ OF NONSUPERVISORY WORKERS IN ELECTRIC AND GAS UTILITIES, BY SELECTED CHARACTERISTICS AND REGIONS,² JULY 1962

Characteristic	United States		New England		Middle Atlantic ³		Border States		Southeast	
	Workers	Earnings ¹	Workers	Earnings ¹	Workers	Earnings ¹	Workers	Earnings ¹	Workers	Earnings ¹
TYPE OF SYSTEM										
All systems:										
Total nonsupervisory workers.....	405,302	\$2.73	25,583	\$2.69	95,634		31,377	\$2.57	30,939	\$2.47
Physical workers.....	290,115	2.86	19,272	2.85	69,755		22,368	2.66	23,065	2.56
Office workers.....	115,187	2.42	6,311	2.21	25,879		9,009	2.34	7,874	2.21
Electric systems:										
Total nonsupervisory workers.....	148,635	\$2.76	15,102	\$2.68					23,073	\$2.60
Physical workers.....	108,279	2.89	11,472	2.84					17,498	2.69
Office workers.....	40,356	2.42	3,630	2.17					5,575	2.31
Gas transmission systems:										
Total nonsupervisory workers.....	24,897	2.54								
Physical workers.....	17,733	2.65								
Office workers.....	7,164	2.27								
Other gas systems: ⁴										
Total nonsupervisory workers.....	77,445	2.51	4,946	2.55			5,026	\$2.49	5,376	2.01
Physical workers.....	53,274	2.60	3,655	2.70			3,603	2.50	3,748	2.05
Office workers.....	24,171	2.32	1,291	2.14			1,423	2.47	1,628	1.90
Combination systems:										
Total nonsupervisory workers.....	154,325	2.85	5,295	2.88			14,865	2.62		
Physical workers.....	110,829	2.98	3,967	3.04			10,607	2.73		
Office workers.....	43,496	2.51	1,328	2.40			4,258	2.36		
SELECTED OCCUPATIONS—ALL SYSTEMS										
<i>Physical workers—Men</i>										
Electricity:										
Auxiliary equipment operators.....	4,472	2.78	247	2.81	999	\$2.87	303	2.67	705	2.55
Groundmen.....	6,490	2.28	284	2.38	916	2.37	597	2.12	1,117	2.04
Linemen, journeymen.....	20,087	3.33	1,629	3.12	3,999	3.54	1,139	3.09	2,110	3.17
Load dispatchers.....	1,109	4.00	89	4.17	259	4.21	66	4.37	135	3.66
Substation operators.....	2,722	3.24	331	3.02	613	3.42	166	3.23	189	2.69
Gas:										
Compressor operators.....	3,609	2.90			564	2.83	386	2.76		
Gas-main fitters.....	7,780	2.80	282	2.68	2,321	2.77	355	2.57		
Gas-main fitters' helpers.....	4,365	2.42	170	2.53	1,200	2.45	294	2.23	177	2.45
Laborers, main installation and service.....	6,464	2.02	167	2.32	1,315	2.15	574	2.00	165	1.75
Servicemen, gas appliances.....	11,254	2.94	847	2.85	2,699	2.95	553	3.08	748	1.43
Miscellaneous: ⁴										
Electricians, maintenance.....	4,573	3.35	466	3.16	665	3.45	180	3.13	485	3.14
Meter readers.....	12,199	2.52	872	2.44	2,826	2.56	813	2.42	1,013	2.38
Stock clerks.....	4,225	2.66	341	2.60	856	2.75	197	2.51	235	2.60
Truckdrivers.....	4,703	2.66	80	2.68	1,106	2.81	337	2.39	186	2.33
<i>Office workers—Women</i>										
All systems:										
Cashiers.....	4,171	1.90	274	2.08	463	2.32	257	1.88	590	2.03
Clerks, accounting, class B.....	3,651	1.95	459	1.97	258	2.37			496	2.13
Secretaries.....	4,362	2.71	365	2.60	754	2.99	382	2.63	359	2.64
Stenographers, general.....	5,011	2.02	185	1.97	890	2.20	343	1.90	512	1.98
Typists, class B.....	1,951	1.77	116	1.86	492	1.90	182	1.67	53	1.73

See footnotes at end of table.

NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS¹ OF NONSUPERVISORY WORKERS IN ELECTRIC AND GAS UTILITIES, BY SELECTED CHARACTERISTICS AND REGIONS,² JULY 1962—Continued

Characteristic	Southwest		Great Lakes		Middle West		Mountain		Pacific	
	Workers	Earnings ¹	Workers	Earnings ¹	Workers	Earnings ¹	Workers	Earnings ¹	Workers	Earnings ¹
TYPE OF SYSTEM										
All systems:										
Total nonsupervisory workers.....	45,015	\$2.29	97,120	\$2.87	29,337	\$2.68	14,749	\$2.65	35,548	\$3.02
Physical workers.....	30,248	2.42	67,713	3.01	21,678	2.81	11,158	2.79	24,858	3.13
Office workers.....	14,767	2.03	29,407	2.54	7,659	2.30	3,591	2.24	10,690	2.76
Electric systems:										
Total nonsupervisory workers.....	19,236	\$2.32	41,716	\$2.98	7,927	\$3.06	3,439	\$2.62	10,880	\$3.05
Physical workers.....	13,534	2.49	29,465	3.12	5,818	3.15	2,593	2.78	7,545	3.21
Office workers.....	5,702	1.91	12,251	2.67	2,109	2.82	846	2.13	3,335	2.68
Gas transmission systems:										
Total nonsupervisory workers.....	11,851	2.48								
Physical workers.....	7,439	2.61								
Office workers.....	4,412	2.27								
Other gas systems: ⁴										
Total nonsupervisory workers.....	9,315	1.87	19,013	2.75	7,266	2.67	1,894	2.42	6,701	2.90
Physical workers.....	6,096	1.92	12,680	2.87	5,159	2.79	1,358	2.53	4,014	2.98
Office workers.....	3,219	1.78	6,333	2.49	2,107	2.38	536	2.14	2,687	2.78
Combination systems:										
Total nonsupervisory workers.....	4,613	2.53	33,178	2.82	10,919	2.48	6,027	2.73	17,551	3.05
Physical workers.....	3,179	2.64	23,151	2.98	8,141	2.68	4,390	2.90	12,987	3.13
Office workers.....	1,434	2.31	10,027	2.45	2,778	1.89	1,637	2.28	4,564	2.81
SELECTED OCCUPATIONS—ALL SYSTEMS										
<i>Physical workers—Men</i>										
Electricity:										
Auxiliary equipment operators.....	432	2.48	1,229	2.94	305	2.79	122	2.75	130	3.13
Groundmen.....	1,105	2.01	839	2.47	381	2.44	321	2.28	930	2.65
Linemen, journeymen.....	1,839	3.03	4,769	3.43	1,648	3.16	728	3.27	2,226	3.55
Load dispatchers.....	101	3.65	231	4.11	101	3.47	55	3.76	72	4.40
Substation operators.....	124	2.58	865	3.36	104	3.34	43	2.91		
Gas:										
Compressor operators.....	1,081	2.85	443	3.05	394	2.87			161	3.48
Gas-main fitters.....	345	2.10	2,997	2.93	729	2.71	167	2.95	407	3.13
Gas-main fitters' helpers.....	400	1.76	923	2.65	339	2.49			771	2.62
Laborers, main installation and service.....	1,271	1.51	1,185	2.46	408	2.10	224	2.13	572	2.51
Servicemen, gas appliances.....	749	2.34	3,607	3.12	781	2.76	288	2.77	980	3.15
Miscellaneous: ⁵										
Electricians, maintenance.....	439	3.11	1,376	3.49	316	3.39	194	3.27	452	3.55
Meter readers.....	1,038	1.94	3,206	2.67	740	2.55	419	2.36	1,272	2.75
Stock clerks.....	482	2.30	1,371	2.75	237	2.55	123	2.48	353	2.86
Truckdrivers.....	1,029	2.42	852	2.78	340	2.75	460	2.68	313	2.88
<i>Office workers—Women</i>										
All systems:										
Cashiers.....	769	1.54	784	2.08	528	1.60	155	1.89	351	1.88
Clerks, accounting, class B.....	805	1.78	860	1.90	450	1.84	85	1.95	112	2.47
Secretaries.....	902	2.43	798	2.83	376	2.62	109	2.62	337	2.94
Stenographers, general.....	1,008	1.77	1,145	2.15	435	1.83	209	2.02	284	2.40
Typists, class B.....	343	1.52	498	1.79	99	1.69	81	1.79	87	2.00

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

² The regions used in this study include: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; *Mountain*—Arizona, Colorado, Idaho,

Montana, New Mexico, Utah, and Wyoming; *Pacific*—California, Nevada, Oregon, and Washington. (Alaska and Hawaii were not included in the study.)

³ Earnings data for other than the selected occupations were insufficient to justify publication of averages and earnings distributions for all nonsupervisory workers.

⁴ Includes systems engaged in gas distribution; gas transmission and distribution; gas production; or gas production and distribution.

⁵ Occupations in this group are common to all types of systems.

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

Establishment Practices

A work schedule of 40 hours a week was in effect in July 1962 for nearly all of the nonsupervisory physical workers in electric and gas utilities. Nine-tenths of the office employees also had 40-hour schedules; most of the remainder worked 37½ hours per week.

Paid holidays were provided by all systems studied, the number of days ranging from 5 to 12 annually. A majority of the physical and office

workers in each region received 7 days or more; the most liberal provisions were recorded in New England and the Middle Atlantic regions, where virtually all workers received 9 paid holidays or more.

Paid vacations after qualifying periods of service were also provided by all systems studied. Two-week vacations were available to three-fifths of the physical workers and seven-tenths of the office workers after 1 year and to virtually all workers in both groups after 2 years of service. Three weeks were provided after 10 years of service to two-

thirds of the physical and office workers. Four weeks of paid vacation were received by three-fourths of the workers with 25 years of service.

Life, hospitalization, and surgical insurance benefits, for which employers paid at least part of the cost, were available to more than nine-tenths of the physical and office workers. An equally high proportion of workers were covered by plans that provide for payments during illness or acci-

dent disability. Approximately four-fifths were in systems providing medical insurance.

Retirement pension plans (other than benefits available under Federal old-age, survivors, and disability insurance), were provided by systems employing virtually all of the workers.

—FRED L. BAUER

Division of Occupational Pay

Earnings in Wool Yarn and Broadwoven Fabric Mills, June 1962

STRAIGHT-TIME EARNINGS of production and related workers in wool yarn and broadwoven fabric mills averaged \$1.66 an hour in June 1962, according to a survey conducted by the Bureau of Labor Statistics.¹ In the earnings array, the middle half of the 50,570 workers covered by the survey earned between \$1.44 and \$1.82 an hour. Nearly 6 percent of the workers earned less than \$1.25 an hour, and 13.5 percent earned \$2 or more.

Earnings data were also tabulated separately by sex, type and size of establishment, and size of community. The study also provides information on the earnings of workers in selected occupations as well as the incidence of certain establishment practices, including hours of work, paid vacations, paid holidays, and health, insurance, and pension benefits.

Mills having agreements with labor organizations accounted for 35 percent of the industry's workers. Forty-five percent of the workers in New England and 6 percent in the Southeast were in union establishments.

Earnings

Workers in New England,² accounting for nearly half of the industry's work force, averaged \$1.71 an hour, compared with \$1.51 for workers in the Southeast, where a third of the workers were employed. Earnings in both regions averaged approximately 20 cents an hour more in June

1962 than in September 1957, when the Bureau conducted a similar study.³ In the Middle Atlantic region, which accounted for 11 percent of the industry's work force, earnings averaged \$1.87 an hour at the time of the current study.

Integrated mills, which perform both spinning and weaving operations, accounted for seven-tenths of the workers in the industry. Workers in these mills averaged \$1.68 an hour, compared with \$1.55 for workers in yarn (spinning) mills and \$1.78 in weaving mills which produce cloth from purchased yarn. The earnings differences were partly due to the greater requirement for skilled workers in the weaving than in the spinning operations. In New England, workers in weaving mills averaged 12 cents an hour more than workers in integrated mills and 20 cents more than those in yarn mills.

¹ Earnings data in this article exclude premium pay for overtime and for work on weekends, holidays, and late shifts.

The survey included establishments employing 20 workers or more and primarily engaged in spinning, twisting, winding, or spooling yarn from wool fibers (including carpet and rug yarn), or in weaving woolen or worsted fabrics over 12 inches in width. For purposes of the study, wool yarns and fabrics are those containing 25 percent wool or more by weight. Establishments primarily engaged in weaving carpets or rugs were excluded.

A more comprehensive account of the study will be presented in a forthcoming BLS bulletin. It will also include a summary of information on wages and selected supplementary practices in wool dyeing and finishing establishments (including shrinking and sponging plants) and in scouring and combing establishments.

Separate reports providing information on earnings and supplementary benefits in wool yarn and broadwoven fabric mills were previously issued for Maine, Massachusetts, New Hampshire, Rhode Island, North Carolina, Virginia, and Philadelphia, Pa., and are available on request.

² For definition of the regions used in this study, see accompanying table, footnote 2.

³ See "Earnings in Wool Yarn and Broadwoven Fabric Mills, 1957," *Monthly Labor Review*, May 1958, pp. 502-509. The scope of the 1962 study differs slightly from the preceding one by the inclusion of 2,083 workers in carpet and rug yarn mills.

Nationwide and in each of the regions for which separate data are provided, workers in metropolitan areas averaged somewhat more than workers in smaller communities. Data were also tabulated by mill-size groups. In the Southeast, workers in mills with 500 employees or more averaged \$1.55 an hour—8 cents more than in mills employing between 250 and 499 workers and 12 cents more than in mills with fewer than 250 workers. In New England, how-

ever, averages for the three groups were only 1 cent apart (\$1.71 and \$1.70).

Because of the interrelationship of the factors discussed in the preceding paragraphs (and other factors, such as extent of unionization), it is not possible to determine the influence of each characteristic on pay levels. In the Southeast, for example, three-fifths of the workers in integrated mills were in establishments employing 500 workers or more, whereas only one-fifth

NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS ¹ OF PRODUCTION WORKERS IN WOOL YARN AND BROADWOVEN FABRIC MILLS, BY SELECTED CHARACTERISTICS AND REGIONS, ² JUNE 1962

Characteristics	United States ³		New England		Middle Atlantic		Southeast		Great Lakes		Pacific	
	Work-ers	Earn-ings ¹	Work-ers	Earn-ings ¹	Work-ers	Earn-ings ¹	Work-ers	Earn-ings ¹	Work-ers	Earn-ings ¹	Work-ers	Earn-ings ¹
All production workers.....	50,570	\$1.66	24,252	\$1.71	5,721	\$1.87	16,659	\$1.51	1,963	\$1.52	939	\$1.90
SEX												
Men.....	29,259	1.71	14,813	1.76	2,997	2.00	9,361	1.55	985	1.58	433	2.01
Women.....	21,311	1.58	9,439	1.63	2,724	1.72	7,298	1.45	978	1.46	506	1.81
TYPE OF MILL												
Yarn.....	12,147	1.55	5,774	1.64	2,213	1.63	3,341	1.37	627	1.37	-----	-----
Weaving.....	3,110	1.78	1,687	1.84	513	1.97	-----	-----	-----	-----	-----	-----
Integrated.....	35,313	1.68	16,791	1.72	2,995	2.03	12,502	1.54	1,336	1.59	725	1.94
COMMUNITY SIZE												
Metropolitan areas ⁴	16,388	1.78	7,527	1.74	5,130	1.89	-----	-----	500	1.62	939	1.90
Nonmetropolitan areas.....	34,182	1.59	16,725	1.69	591	1.66	14,889	1.50	1,463	1.49	-----	-----
MILL SIZE												
20-249 workers.....	20,482	1.67	11,435	1.71	4,244	1.76	2,254	1.43	1,383	1.49	580	1.84
250-499 workers.....	17,962	1.64	10,785	1.71	-----	-----	5,870	1.47	-----	-----	-----	-----
500 workers or more.....	12,126	1.66	2,032	1.70	-----	-----	8,535	1.55	-----	-----	-----	-----
SELECTED OCCUPATIONS												
<i>Woolen</i>												
Card finishers ⁵	1,199	1.65	750	1.65	183	1.79	167	1.51	46	1.45	18	1.91
Fuller tenders ⁶	491	1.81	204	1.64	153	2.17	78	1.70	30	1.68	9	1.88
Loom fixers ⁶	813	2.14	438	2.15	91	2.45	185	1.93	36	1.99	25	2.49
Spinners, frame.....	2,887	1.71	1,838	1.76	206	1.97	656	1.47	59	1.59	51	1.89
Men.....	774	1.81	507	1.81	159	1.94	-----	-----	6	1.68	-----	-----
Women.....	2,113	1.67	1,331	1.74	47	2.10	565	1.45	53	1.58	51	1.89
Weavers, box looms, automatic.....	2,199	2.06	1,374	2.12	140	2.13	382	1.88	103	1.64	47	2.29
Men.....	1,489	2.10	1,023	2.13	83	2.27	226	1.93	26	1.61	32	2.33
Women.....	710	1.97	351	2.11	-----	-----	156	1.81	77	1.65	15	2.22
Winders, filling, automatic ⁷	552	1.58	318	1.58	61	1.71	100	1.46	14	1.31	-----	-----
<i>Worsted</i>												
Comber tenders ⁸	90	1.65	59	1.73	-----	-----	-----	-----	-----	-----	-----	-----
Doffers, spinning frame.....	676	1.48	276	1.53	85	1.38	306	1.47	-----	-----	-----	-----
Men.....	329	1.54	81	1.76	-----	-----	233	1.47	-----	-----	-----	-----
Women.....	347	1.42	195	1.43	79	1.38	73	1.45	-----	-----	-----	-----
Loom fixers ⁶	381	2.15	133	2.23	33	2.30	215	2.08	-----	-----	-----	-----
Spinners, frame, American system ⁸	1,026	1.54	384	1.73	12	1.46	617	1.42	-----	-----	-----	-----
Spinners, frame, Bradford system ⁷	607	1.50	328	1.56	87	1.50	-----	-----	65	1.27	-----	-----
Weavers, box looms, automatic ⁶	853	2.01	264	2.27	45	2.30	544	1.87	-----	-----	-----	-----
Winders, cone and tube, high speed, nonautomatic ⁷	1,444	1.43	636	1.55	104	1.51	670	1.30	-----	-----	-----	-----
<i>Miscellaneous</i>												
Battery hands.....	529	1.41	292	1.47	13	1.64	197	1.31	-----	-----	-----	-----
Men.....	239	1.42	122	1.53	12	1.63	94	1.25	-----	-----	-----	-----
Women.....	290	1.41	170	1.43	-----	-----	103	1.37	-----	-----	-----	-----
Machinists, maintenance ⁹	221	2.02	76	2.01	27	2.52	114	1.97	-----	-----	-----	-----
Truckers, hand (including bobbin boys) ⁹	1,302	1.50	687	1.53	177	1.69	384	1.36	32	1.45	14	1.86

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

² The regions used in this study include: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Pacific*—California, Nevada, Oregon, and Washington.

³ Includes data for regions in addition to those shown separately. Alaska and Hawaii were not included in the study.

⁴ The term "metropolitan area" as used in this study refers to the Standard Metropolitan Statistical Areas established under the sponsorship of the U.S. Bureau of the Budget.

⁵ Workers were predominantly men.

⁶ All workers were men.

⁷ Almost all workers were women.

⁸ Workers were predominantly women.

⁹ Almost all workers were men.

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

of the yarn-mill workers were in establishments of this size.

Earnings of nearly all workers were within a range of \$1.15 to \$2.50 an hour; the middle half had earnings between \$1.44 and \$1.82. Regionally, the distribution of workers within specified earnings classes varied considerably, as indicated in the following tabulation:

Percent of workers with specified straight-time hourly earnings in—

	United States ¹	New England	Middle Atlantic	South-east	Great Lakes	Pacific
Under \$1.25.....	5.9	1.5	0.6	11.9	23.5	4.5
\$1.25 and under \$1.50.....	26.6	19.6	13.1	42.9	24.9	4.2
\$1.50 and under \$1.75.....	35.5	42.6	31.3	29.5	30.6	13.3
\$1.75 and under \$2.00.....	18.4	21.5	22.7	11.2	14.3	47.2
\$2.00 and under \$2.25.....	8.3	9.6	15.2	3.8	5.3	13.7
\$2.25 and over.....	5.2	5.2	17.1	.7	1.4	17.1
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers..	50,570	24,252	5,721	16,659	1,963	939

¹ Includes data for regions in addition to those shown separately.

NOTE: Because of rounding, sums of individual items may not equal 100.

The occupational classifications for which earnings data are presented in the accompanying table accounted for three-tenths of the production workers within the scope of the survey.⁴ Among these, average earnings ranged from \$1.41 an hour for battery hands to \$2.14 for loom fixers in woolen operations and \$2.15 in worsted operations. Frame spinners and automatic box loom weavers, two numerically important occupations in the production of woolens, averaged \$1.71 and \$2.06 an hour, respectively. In worsted operations, frame spinners (American system) averaged \$1.54 and automatic box loom weavers, \$2.01 an hour.

Spinners and weavers were frequently paid on an incentive basis. Approximately one-fourth of all production workers were paid incentive rates; individual piece-rate systems were typically utilized.

Establishment Practices⁵

Work schedules of 40 hours a week were in effect in June 1962 in mills employing approxi-

⁴ Earnings data for additional occupations are presented in the forthcoming bulletin.

⁵ Establishment practices for production and related workers are briefly summarized in this article. Additional detail for these workers and information for office workers will be presented in the forthcoming bulletin.

mately three-fifths of the production workers. Nearly half of the workers in the Southeast region, however, were scheduled to work 48 hours.

Two-fifths of the production workers were employed on late shifts. About twice as many were employed on second shifts as on third or other late shifts. Premium pay for second shift work was usually provided in New England, but rarely in the Southeast; premium pay for third or other late shift work, however, was common in both regions.

Paid holidays were provided by establishments with seven-tenths of the workers. In New England, nine-tenths of the workers received paid holidays, usually 6 days annually; in the Southeast, about two-fifths were in establishments providing paid holidays, most commonly 1 day a year.

Paid vacations to workers with qualifying periods of service were provided by establishments employing nearly all of the production workers. A large majority of the workers were in establishments providing a week's vacation pay after 1 year of service and 2 weeks after 5 years or more. Provisions for vacations in excess of 2 weeks were not common in the industry.

Life, hospitalization, and surgical insurance, for which employers paid at least part of the cost, were provided by mills employing nine-tenths or more of the workers. Accidental death and dismemberment insurance was available to three-fourths of the workers; sickness and accident insurance, to seven-tenths; and medical insurance, to nearly half.

Pension plans providing regular payments to workers upon retirement (other than those available under Federal old-age, survivors, and disability insurance) were reported by establishments employing slightly more than one-eighth of the workers. A similar proportion of the workers were in mills providing lump-sum payments at retirement.

Nonproduction bonuses, usually paid at Christmas or yearend, were provided by mills employing two-fifths of the workers.

—CHARLES M. O'CONNOR
Division of Occupational Pay

Wage Chronology: International Shoe Co.¹

Supplement No. 4—1962-64

TWO-YEAR CONTRACTS to replace those that expired September 30, 1962, were agreed to on the following day by the International Shoe Co., and the United Shoe Workers of America (USWA) and the Boot and Shoe Workers (B&SW) after almost 2 months of negotiations. The new agreements, which covered about 13,000 workers, provided 3-cent-an-hour general wage increases for all workers on January 1, 1963, and again on January 1, 1964.² In addition, higher rates for some incentive operations, effective March 4 and September 3, 1963, will increase the earnings of one-third of

the company's employees an average of 6 cents an hour over the life of the contract.

Improvements in fringe benefits consisted of an additional paid holiday and an increase in women's accident and sickness benefits to the level of the men's benefits. An actuarial study of the pension fund was instituted to determine the feasibility of an early retirement provision under existing financing arrangements. As a result of this study, the pension plan was amended to permit voluntary retirement at age 62.

The following tables show the changes incorporated in the 1962 agreements, which are to remain in effect until September 30, 1964, without any reopening.

¹ See *Monthly Labor Review*, July 1952 (pp. 30-34), April 1953 (pp. 402-403), July 1958 (pp. 765-766), October 1961 (pp. 1106-1108), or Wage Chronology Series 4, No. 25.

² An additional 3,000 to 4,000 unorganized workers were to receive the same changes in wages and benefits.

A—General Wage Changes

Effective date	Provision	Applications, exceptions, and other related matters
Jan. 1, 1963 (USWA and B&SW—agreements of Oct. 1, 1962).	3 cents an hour increase-----	Weekly earnings of pieceworkers increased by the general wage change times the number of hours worked during the week. Agreement also provided a deferred general wage increase, effective Jan. 1, 1964, and increases in incentive rates, effective Mar. 4 and Sept. 3, 1963.
Mar. 4, 1963 (USWA and B&SW—agreements of above date).	-----	Deferred increase of up to 5 cents per 100 piecework points in some incentive operations, amounting to 1 cent an hour when averaged over entire bargaining unit. ¹
Sept. 3, 1963 (USWA and B&SW—agreements of above date).	-----	Deferred increase of up to 5 cents per 100 piecework points in some incentive operations, amounting to 1.5 cents an hour when averaged over entire bargaining unit. ¹ Minimum rate increased to \$1.25 an hour as required by 1961 amendment of Fair Labor Standards Act; other rates in progression schedule for lowest paid day-rate workers increased to reflect new minimum.
Jan. 1, 1964 (USWA and B&SW—agreements of above date).	3 cents an hour increase-----	Deferred wage increase. Weekly earnings of pieceworkers increased by the general wage change times the number of hours worked during the week.

¹ Under the company's incentive plan, 100 points is equal to approximately 100 minutes of work for the average worker. The 5 cents would,

therefore, be the equivalent of about a 3-cent-an-hour increase for the average pieceworker.

B—Minimum Hourly Rates for Nonincentive Workers, All Areas

Effective date	Rate	Applications, exceptions, and other related matters
Sept. 3, 1961-----	\$1.15-----	To comply with amendment of Fair Labor Standards Act, effective Sept. 3, 1961; other rates in progression schedule increased to reflect increase in minimum rate, although this was not included in the contracts.
Jan. 1, 1963-----		By agreements of Oct. 1, 1962, automatic progression changed to rate equal to the minimum rate plus at least two-thirds the difference between the minimum and maximum rates.
Sept. 3, 1963-----	1.25-----	To comply with 1961 amendment of Fair Labor Standards Act; other rates in progression schedule increased to reflect increase in minimum rate. ¹

^{#1} The progression schedule in effect since October 1958 provided for various maximum rates, depending on the length of time necessary to attain the skill required to perform a specific job. Examples of the progression schedule, effective Sept. 3, 1963, are shown in the following two jobs in the company's Springfield, Ill. (Boot and Shoe Workers), plant:

Outback shoes:	Hourly rate
Minimum-----	\$1.25
After 4 weeks-----	1.275
After 8 weeks-----	1.30
After 12 weeks-----	1.325
After 16 weeks-----	1.35
After 20 weeks-----	1.375

Outback shoes—Continued	Hourly rate
After 24 weeks-----	\$1.40
After 28 weeks-----	1.425
After 32 weeks-----	1.45
Maximum-----	1.635

Back shoe boy (lasting department):	Hourly rate
Minimum-----	1.25
After 4 weeks-----	1.275
After 8 weeks-----	1.30
After 12 weeks-----	1.325
Maximum-----	1.365

C—Related Wage Practices

Effective date	Provision	Applications, exceptions, and other related matters
<i>Holidays</i>		
May 30, 1963 (USWA and B&SW agreements of Oct. 1, 1962).	Added: 1 paid holiday (total 7)-----	Holiday was Memorial Day, formerly an unpaid holiday.
<i>Technological Change Pay</i>		
Oct. 1, 1962 (USWA and B&SW agreements of same date).	Changed: Guarantee for operators transferred to machine that represented a technological change—Lesser of 60 points per hour at class wage of new machine or average pay of employee on previous job.	Guarantee applied for minimum of 120 hours or until a piece rate was established, whichever occurred later.
<i>Group Insurance</i>		
Dec. 1, 1962 (USWA and B&SW agreements of Oct. 1, 1962).	Increased: <i>Sickness and accident benefits for women</i> —to \$20 a week.	
Dec. 1, 1963 (USWA and B&SW agreements of Oct. 1, 1962).	Increased: <i>Sickness and accident benefits for women</i> —to \$25 a week.	
<i>Pension Plan</i>		
Oct. 1, 1962 (USWA and B&SW agreements of above date).	Changed: <i>Normal retirement benefits</i> —age requirement reduced to 62.	Agreement provided for lowering retirement age if benefits would not increase company contributions and Internal Revenue Service would approve change for tax purposes. Change in age requirement was adopted.

Technical Note

International Comparisons of Unit Labor Cost: Concepts and Methods

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AS INDICATED in the article, "The Role of Labor Cost in Foreign Trade," on pages 485-490 of this issue, international comparisons of labor cost are needed for analysis of foreign trade. They are also needed for a number of other purposes. This note examines the measurement of labor cost in relation to output and formulates guidelines for future work in this field. First, a definition of unit labor cost is needed.

Unit labor cost is the ratio of total labor cost (or expenditure), in money terms, to total output produced by this labor (in concert with other factors of production), in physical terms. The unit of measurement may be expressed as, for example, dollars per ton or francs per gallon.

The relationship of unit labor cost to hourly labor cost and output per man-hour (labor productivity) can be expressed algebraically as follows:

Let Q =quantity of output
 E =aggregate labor cost (or expenditure)
 L =man-hours of labor

Then,

$$\text{Unit labor cost} = \frac{E}{Q}$$

$$\text{Hourly labor cost} = \frac{E}{L}$$

$$\text{Output per man-hour} = \frac{Q}{L}$$

Clearly, unit labor cost equals hourly labor cost divided by output per man-hour.

All three concepts, hourly labor cost, unit labor cost, and output per man-hour, are useful in international comparisons, but the present note is concerned only with unit labor cost. The various approaches to measurement of unit labor cost are first taken up, followed by a discussion of labor cost (the numerator) and output (the denominator).

Approaches to Measurement

The greatest problem involved in measuring unit labor cost stems from the fact that labor cost data are available by industry while output is reported by product, and since nearly all industries produce a number of products, the question of labor cost allocation (or product synthesis) must be faced. Attempts have been made to break down labor and other costs by product to arrive at unit labor cost for individual products, and studies of this type undertaken by two different agencies are discussed later in this section. Attempts have also been made to combine product data into industry aggregates to arrive at unit labor cost for an industry, and this method is also discussed below. Finally, it is possible to prepare estimates for all manufacturing industries combined.

The methodology described in this note relates primarily to the industry approach and therefore concerns only the cost of labor within the industry or industry group. It thus excludes labor cost in other industries, which would be embodied in the materials cost for the industry under consideration.

Comparability of Data. In any approach to measurement, two sorts of comparability are needed. First, the labor cost used should be the payment for the labor (both production and non-

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production workers) which actually produced the output. Second, the industry or product covered in different countries should be the same. In general, lack of comparability between labor costs and output in the same country may be a more serious data problem than lack of comparability between countries in the definition of an industry or product.

Thus, in the first instance, if labor cost data for the petroleum refining industry in a country cover all employees in primary refining and related petrochemical operations while the output data represent only the primary refinery products, the ratio of these two quantities could seriously overstate unit labor cost. An undetermined number of employees in these establishments spend part or all of their working hours converting refinery products into petrochemical products which are entirely omitted from the output quantities. In the second instance, if data for the primary iron and steel industry include wiredrawing in Germany but not in the United Kingdom, a lack of comparability between the two countries may result. If wire output is included in the German output data with a proportionate weight and if labor cost per weighted unit of wire output does not differ greatly from labor cost per weighted unit of primary iron and steel products, then the error is small; if this is not the case, the error may be in either direction. Clearly, both sorts of comparability should be striven for, but special emphasis should be placed on achieving comparability between labor cost and output in each country.

Measurement by Product. One way of achieving comparability is to conduct a special study of individual establishments in different countries, obtaining the necessary data for a selected production item which is regarded as illustrative or

typical. A recent example of this approach is the 1961 study sponsored by the U.S. Department of Commerce on comparative fabric production costs.¹ It was conducted by a private research corporation and consisted of a plant-to-plant comparison of production costs, including labor costs, for selected fabrics in five countries. The limitations of the study were carefully described in the introduction:

The basic method used in the study was to obtain from individual producers in each country data on their actual cost experience in the production of a specific fabric. These data were to be derived from the actual cost records of the individual producers and were to be as complete and detailed as these records would permit. Very early in the study it was found that considerable variation existed in the cost accounting procedures and the cost classifications used by producers in the United States. Even more variation existed in cost accounting between producers in the United States and many of those abroad. Furthermore, it was found that although some producers in the United States, and in Japan as well, record and analyze costs in great and careful detail, many producers in all countries do not. Only to a limited degree do their accounts record and distinguish inputs and costs of the various factors of production by individual fabric. As a result, the choice of reporting firms was greatly narrowed and detail in which comparable data could be obtained was reduced. These data do, however, reflect the actual production and cost experience of producing plants.

One of the questions posed relates to the representative character of the particular producing plants from which data were obtained. Since no universe of any sort of production cost data exists, it was not possible to select plants which fit into or represent in any known way the range of production costs in any of the countries.²

The U.S. Tariff Commission has attempted to determine total cost of production and certain major cost components by product in a number of cases.³ The Commission achieved some useful results in the studies as a whole but encountered several difficulties in arriving at cost estimates, including the limited number of companies from which cost data on individual products could be obtained and accounting problems in cost allocation. Rapid changes in industry conditions during the early 1930's and the instability of international exchange rates also limited the applicability of resulting cost information.

The most recent cost investigation made by the Tariff Commission covered brooms made of broomcorn.⁴ In this case, the Tariff Commission found a total cost and a labor cost for the United States but concluded that the cost of production "for

¹ *Comparative Fabric Production Costs in the United States and Four Other Countries* (U.S. Department of Commerce, Business and Defense Services Administration, 1961).

² *Ibid.*, pp. 1-2.

³ The principle of cost equalization through tariff-setting was introduced in 1922, when provision was made for the Tariff Commission to conduct cost investigations and make recommendations to the President for the raising or lowering of duties to equalize costs. The provision was retained as section 336 of the Tariff Act of 1930, and over 100 cost investigations were conducted in the 1930-33 period. The Trade Agreements Act of 1934 retained the cost equalization provision but made it inapplicable to any commodity on which a tariff concession was made pursuant to a trade agreement. Consequently, only a small number of investigations have been ordered since 1933.

⁴ *Brooms Made of Broomcorn* (U.S. Tariff Commission, January 1962), Investigation No. 336-121.

brooms made of broomcorn produced in the principal competing country [Mexico] was not readily ascertainable, and the Commission accepted the weighted average invoice prices of Mexican brooms made of broomcorn imported during the representative period as evidence of cost of production."

It is clear that the difficulties under which product studies are now being made cannot be readily overcome. If cost accounting by product becomes more widespread, more uniform, and more available, studies by product may hold more promise for overall economic analysis.

Measurement by Industry. A second way of achieving comparability between labor cost and output data is to combine the output of all the different products of individual plants or of an industry into an aggregate figure. Significant studies in this field have been prepared on a deflated value basis by Paige and Bombach⁵ and Rostas.⁶

A comparison of individual plant costs in the United States and abroad was conducted by the National Industrial Conference Board in 1961.⁷ This study was confined to U.S. firms with operating affiliates abroad, and data are presented in terms of percentages of total cost rather than in absolute terms.

It would seem that the industry approach offers more hope for expanding quantitative knowledge in international labor cost comparisons over the next few years than does the product approach, but in measuring output, as will be discussed hereafter, emphasis needs to be shifted from value to quantity terms. The basic information required for this approach generally does exist at the establishment level in industrial countries. Many of these data have already been assembled as national totals for basic industries in the United States and some other countries through censuses of manufactures and by other means, and over the next few years substantial progress toward assembling national totals in many countries can be expected. In addition, the classification of manufacturing industries is becoming reasonably uniform among countries.⁸

Substantial technical difficulties do exist, however. Probably the most serious of these stem from quality differences and product diversity. The quality factor is particularly important in such consumer industries as apparel and shoes,

where variations in standards of durability and styling make it hard to compare the physical volume of output of different countries in economic terms. The diversity factor is particularly important in, for example, the electrical machinery industry, where the sheer number of types and specifications of product renders summarization difficult. For these two reasons it may be expedient to study first the basic industries, where quality differences and product diversity are far less.

Industry or product cost comparisons are usually limited to movable goods and the industries producing them. Such comparisons are rarely cited or requested for the distributive trades, services, government, and construction, although these would have to be included in comparisons for whole economies. Agriculture, forestry, and fisheries are concerned with foreign trade as directly as are manufacturing and mining, but since labor cost in the present context excludes the income of owners and operators, labor cost is not a very large part of total cost for most products in this industry group. Thus, the concepts and methods discussed in the present article will give attention primarily to the problems encountered in manufacturing and mining.

Measurement for All Manufacturing. To show the overall comparison, and often in the absence of specific industry data, international comparisons of unit labor cost in all manufacturing industries combined have been used. Such comparisons have been made by the UN Economic Commission

⁵ Deborah Paige and Gottfried Bombach, *A Comparison of National Output and Productivity of the United Kingdom and the United States* (Paris, Organization for European Economic Cooperation, 1959).

⁶ Laszlo Rostas, *Comparative Productivity in British and American Industry* (London, Cambridge University Press, 1948), National Institute of Economic and Social Research, Occasional Papers XIII.

⁷ Theodore R. Gates and Fabian Linden, *Costs and Competition: American Experience Abroad* (New York, The National Industrial Conference Board, 1961), Studies in Business Economics, No. 73.

⁸ In the United States, the generally accepted industrial classification system is the *Standard Industrial Classification Manual*, 1957 ed., prepared by the Technical Committee on Industrial Classification, Office of Statistical Standards, U.S. Bureau of the Budget. Many foreign countries have adopted classification systems based upon the *International Standard Industrial Classification of All Economic Activities* (New York, 1959), issued by the Statistical Office of the United Nations. The UN system bears a close conceptual resemblance to the U.S. system, although it presents less detail. Both systems are intended primarily as an aid for preparing statistics by establishment. It should be noted that the principal statistics on world trade are classified on a commodity basis, rather than on an establishment basis. A reconciliation between trade statistics and production statistics, therefore, is difficult to achieve. For the United States, progress in this respect has been made by the Bureau of the Census in its *U.S. Commodity Exports and Imports as Related to Output, 1958*.

for Europe, the Bureau of Labor Statistics, and others.⁹ They relate to trends over time and in some cases to the absolute level of costs.

The trend comparisons are most used in relation to the overall economic problem of inflation and changes in cost advantage and in discussions of the valuation of currencies in international exchange. They can be made on a rough basis for many countries, since most industrial countries and some underdeveloped countries prepare in some form the necessary summary industrial earnings and productivity data. Valid long-term trends may be disclosed by this method, but short-term fluctuations of a few percentage points should be interpreted with caution, since more work, requiring careful examination of the basic statistics, needs to be done to establish comparability in many cases.¹⁰

Unit labor cost has been described earlier as the ratio between labor expenditure (the numerator) and production (the denominator). The remainder of this technical note deals with these two principal components in further detail and also discusses the significance of the time factor and the exchange rate factor in the study of unit labor cost.

Labor Expenditure Components

Labor cost (or expenditure) may be defined as the payments by employers for the employment of labor as a factor of production. It includes (1) the items covered in the average earnings statistics for production workers, such as those pub-

lished monthly by the BLS, which include basic wages, premium pay, paid leave, and sometimes other items; (2) similar items for all employees other than production workers (including executives and managers); (3) legally required and voluntary supplements provided in kind or paid directly to the employee or into special employee benefit funds. In making this definition operational, it is necessary to take account of present accounting practices.

Many types of payments commonly used in one or more foreign countries are rare or unknown in the United States. For several of these types, satisfactory methods of measurement have not yet been developed. In considering what supplements to add, special attention should be given to the items covered in the International Labor Office labor cost study covering the year 1955.¹¹

General Guides. Taking account of the foregoing, the following general guides are considered suitable to provide a sound conceptual basis for international comparisons.

1. Labor cost must represent actual payments by employers within an industry.

2. Costs which are not usually allocated to a single factor of production should be excluded.

3. Nonbenefit payments, such as recruitment and training, which are for labor, although they do not necessarily benefit labor, are included in total labor cost but should be shown separately.

4. Payments in kind for labor should be regarded as labor cost and should be valued at their direct cost to the employer. Depreciation of fixed assets, such as housing facilities, may be considered as a payment in kind to the extent of the subsidy involved, provided that the assets are used for the direct and sole benefit of employees.

The first guide draws an important definitional boundary by confining the concept of labor expenditure to outlays by employers, as distinguished from outlays by other institutions, such as private welfare funds or government agencies. Employer contributions to retirement and welfare funds should be included. Excluded would be payments of taxes by employers based on income, sales, or other measures not related directly to employment even if such revenues are later used to finance social programs. This is a troublesome point, since certain benefits may be directly

⁹ See, for example: (1) *Economic Survey of Europe, 1958 and 1960* (Geneva, UN, Economic Commission for Europe); (2) *Foreign Trade and Collective Bargaining*, an address by Philip Arnow, Assistant Commissioner of Labor Statistics, to the Industrial Relations Research Association, May 1960, excerpted in *Monthly Labor Review*, July 1960, pp. 693-699; (3) Richard N. Cooper, "The Competitive Position of the United States," in Seymour E. Harris, ed., *The Dollar in Crisis* (New York, Harcourt, Brace & World, Inc., 1961); (4) Faith M. Williams and Edgar I. Eaton, "Payments for Labor and Foreign Trade," *American Economic Review*, September 1959, pp. 584-601; (5) Mary K. Baird and Frank Meissner, *Wage Costs Abroad* (Menlo Park, Calif., Stanford Research Institute, 1961); and (6) "Chapter VIII: Labor Standards," *Staff Papers Presented to the Commission on Foreign Economic Policy*, pp. 427-439.

¹⁰ For further discussion of the problems of measuring production and production trends, see *Trends in Output per Man-Hour in the Private Economy, 1909-58* (BLS Bulletin 1249, 1960); Martin L. Marimont, "GNP by Major Industries," *Survey of Current Business*, October 1962, pp. 6-20; Jerome A. Mark, "Industry Indexes of Output Per Man-Hour," *Monthly Labor Review*, November 1962, pp. 1269-1273; "Industrial Production—1957-59 Base," *Federal Reserve Bulletin*, October 1962, pp. 1287-1276; Victor Perlo, "The Revised Index of Industrial Production," with reply by Clayton Gehman, *American Economic Review*, June 1962, pp. 496-522; and *Index Numbers of Industrial Production* (New York, United Nations, 1950), Studies in Methods, No. 1.

¹¹ *Labor Costs in European Industry* (Geneva, ILO, 1959), NS 52, p. 26.

financed by employers in one country, by employees in another, and by government in a third. A notable example of a government benefit program is the national health program in the United Kingdom, financed out of general tax revenues. The solution recommended here is the one followed in the ILO study, and while it is not entirely satisfactory, no better one is at hand. The ILO study distinguishes between social programs financed by means of direct employer contributions and programs financed from general tax revenues, the former being regarded as labor costs and the latter not.

The second guide excludes from labor cost payments which are usually classified as factory supply cost or general overhead, such as the furnishing of in-plant employee needs. These expenditures are closely associated with the work environment. A few examples of this sort are expenditures for uniforms, safety clothing, health supplies, recreation equipment, and such plant facilities as washrooms and parking lots. Studies prepared by the BLS do not include these items¹² but some of them may have been included in the ILO study.

The third guide applies to payments which are clearly a cost of employing labor from the managerial viewpoint yet are not a measurable benefit from the viewpoint of the worker.¹³ Examples of these payments are recruitment expenses of various types, training and testing of employees, and payroll taxes for general revenue purposes, such as the *impôt cédulaire* on wages and salaries in France. Such expenditures are defined by the ILO as "other payments related to labor cost," and are treated separately from the principal cost items. Studies of supplementary benefits in the United States, such as those conducted by the Bureau of Labor Statistics and United States Chamber of Commerce,¹⁴ of course, do not treat these as employee benefits.

The fourth guide calls for the inclusion of payments in kind to employees, including meals and food, other commodities, and services provided out of current funds for personal consumption. The provision of such facilities as employee housing, medical centers, and recreation facilities away from the workplace would also be a labor cost. The handling of such costs in practice often differs among countries. The yardstick for estimating the value of these items to be included in labor

cost is net cost to the employer. Items sold to employees at cost should be omitted. Items sold to employees at less than cost should be valued at cost less sales. In the case of housing, the same rule applies to total cost including depreciation. In some instances, cash allowances are paid to the employee or housing for other purposes. Such payments, of course, are regarded as labor cost items.

To be consistent with the basic criteria set forth above, the cost of contract work, such as plant maintenance, stenographic, or production engineering services, would not be included among labor expenditures, even when such work consists exclusively of labor services, unless it is necessary to do so in one country in order to achieve comparability with other countries. Exclusion of such expenditures may call for special explanation if the practice is significant in particular industries or countries. The existence of a contract to supply labor suggests that the firm utilizing the labor has partially relinquished its functions as employer, and it also suggests that the expenditure involved does not accrue entirely to labor but is allocable in part to the contractor's overhead and profits.

It is not possible to determine all items that may be included among labor expenditures. Decisions about individual items or practices must await actual country-by-country compilations of data. Comparisons between the United States and Japan, for example, will sometimes have to include items (e.g., carfare for industrial workers) which, because of their size, can safely be ignored in com-

¹² BLS studies of supplementary pay practices are not intended to cover all supplementary labor costs, so this exclusion is by no means conclusive.

¹³ In this connection it should be pointed out that comparisons of earnings and labor expenditures among countries serve two purposes which are usually distinct. The first of these, and the one which this article deals with, concerns cost comparisons, and for this end labor is treated as a factor of production. The second concerns real income comparisons, and for this purpose workers are treated as consumers. If an employee in Amsterdam receives the same salary as another in New York, his real income may be substantially higher because of lower consumer prices in Amsterdam.

There are also differences in the items to be included in labor cost and those to be included in income. The payment of recruitment expenses and other nonbenefit labor costs should not be considered as income to the employee. Employer social security taxes are a cost at the time of payment, but the employee draws no income from these payments until he has left the payroll for retirement. On the other hand, an employee draws benefits in some countries from public sources such as a national medical plan, but at no direct cost to his employer. Discussion of international comparisons of workers' real income and welfare, the framework for such comparisons, and the relationship of such comparisons to cost comparisons will be the subject of a subsequent study.

¹⁴ *Employer Expenditures for Selected Supplementary Remuneration Practices for Production Workers in Manufacturing Industries, 1959* (BLS Bulletin 1308, 1962); and *Fringe Benefits, 1961 and earlier years* (United States Chamber of Commerce).

parisons between the United States and Germany. The intent here is to lay down the guiding principles and to discuss illustrative individual items.

Categories of Labor Expenditures. Detailed international comparisons of individual items of labor expenditure are not essential to comparisons of overall cost. For example, in India and in those countries suffering from chronic inflation, the cost-of-living bonus or "dearness allowance" is often larger than the basic wage. This fact may be important in a study of differences in pay practices among countries, but it has little direct relevance to international labor cost comparisons.

Two conceptually simple breakdowns, however, do seem important if they can be obtained. The first is a distinction among cash earnings, supplementary benefits, and employer expenditures for nonbenefit payments. The second is a distinction between production workers and nonproduction workers. The two breakdowns should be cross-classified.

The most important reason for separating cash earnings and supplementary payments is availability of the data. Earnings data are available more frequently and in greater industry detail than are supplementary payments; hence, calculating and updating require this distinction between types of cost.

The basic distinction between production workers and nonproduction workers¹⁵ in manufacturing is that the former are directly involved in the production process and the latter are not. Much data are still collected by the BLS for production workers only. Most industrial and many developing countries have a distinction of this general character, but the classification varies greatly from country to country. In some countries the distinction is basically between hourly paid and monthly paid employees. Indeed, in the United Kingdom and many former British colonies, the

term "employee" is practically confined to persons who have a salaried position as distinguished from "wage earners" who have a job. In most Latin American countries, the distinction is basically between manual workers (obrerros) and workers not doing physical labor (empleados).

Separate statistical treatment for wage earners in manufacturing and mining (U.S. production and related workers) is well established internationally, but it has not been possible to reach international agreement on the nature of the distinction between wage earners and others. In June 1938, the 24th International Labor Conference adopted Convention No. 63, concerning Statistics of Wages and Hours of Work, calling for member countries to compile earnings and hours statistics for wage earners employed in each of the principal mining and manufacturing industries. In 1949, the ILO's Seventh International Conference of Labor Statisticians considered Convention No. 63 and made several recommendations for improvement of wage and hours statistics. One proposal requested that "in presenting statistics of earnings and of hours of work, countries should define the meaning of the terms 'wage earner' and 'salaried employee' and indicate, more particularly, whether working foremen and persons holding positions of management are covered; wherever possible separate information should be provided for the two latter categories."¹⁶

For cost purposes, the most desirable measure of labor expenditures would cover all employees. However, for reasons of historical practice and the relative abundance of data on production workers, the breakdown between production and nonproduction workers can be retained to advantage. Production workers' hours and pay tend to vary directly with the volume of output, whereas nonproduction workers often come within the overhead category. Advancing technology makes the distinction more difficult and less meaningful, but it still seems worthwhile to attempt it.

Computation of Total Output

In computing unit labor cost for an industry, the major problems on the output side are (1) to obtain output data, by product, on a basis comparable to labor cost and (2) to combine these output data into a single figure representing total

¹⁵ In BLS terminology, the full title is production and related workers, which is defined to include the following: Working foremen and all non-supervisory 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.

Nonproduction workers include all employees other than production and related workers, as defined above.

¹⁶ *The International Standardization of Labor Statistics* (Geneva, ILO, 1959), NS 53, p. 72.

output for the industry. Output data are available for many industries in the form of physical production or shipments, as well as in value terms. Data procurement problems relate principally to comparability with labor cost, and they have been discussed briefly above. It remains to discuss the concept of total output in the context of unit labor cost and the methodology to be followed in computing it.

*Weighting System.*¹⁷ The usual measure of the output of an industry in physical units is an unweighted or weighted aggregate or an index of such an aggregate. From a statistical point of view, a weighted physical aggregate is preferable since the weights adjust for shifts in composition of product from, for example, low value-per-unit to high value-per-unit products. In a general purpose industrial production index, the weights for each product are proportional to unit value added by manufacture for that product.¹⁸ In a productivity index, the weights should in theory be proportional to labor input (man-hours) per unit of product.¹⁹ Similarly, in unit labor cost comparisons, the weights should approximate labor cost per unit of product. Such a precise weighting system would exclude the effect of changes in the product mix in each of these cases.

Such precise weighting is seldom possible and is not always necessary. Relatively large changes in weights cause only small changes in weighted aggregates, provided that the weight changes are not highly correlated with the trend differences among the items being measured. Thus it is quite common to develop weights from prices or unit values, but this is justifiable only if investigation shows no serious bias arising from a quantity-value correlation among countries.

To cite an example of an appropriate use of this technique in the domestic field, 1 gallon of aviation gasoline is regarded as equivalent to 1.6 gallons of kerosene for purposes of computing productivity change in the petroleum refining industry.²⁰ This ratio is based upon value relationships in a reference year (1947). The extent to which this technique can be used in international comparisons must be determined as data of this type are analyzed.

U.S. Versus Foreign Weights. The foregoing discussion is stated in terms of comparisons over

time for a single country, but it is equally applicable to comparisons among countries for a single year. International comparisons of output, however, raise questions which are usually not of great consequence in short-run time series comparisons. The most important of these is the weight-base problem. In international comparisons, the weight-base can be data for any one country or an average. In an extensive study of national product comparisons, Gilbert and Kravis found,²¹ for example, that 1950 real per capita gross national product (GNP) in Germany was 33 percent of the U.S. level when valued at European relative prices, but 43 percent of U.S. when valued at U.S. relative prices.

The reason for this large difference is that certain commodities and services that are produced and consumed in relatively large volume in Germany have much lower prices there than in the United States. Similarly, items such as electric refrigerators and cotton dresses which are produced and consumed in large volume in the United States are relatively cheaper here than in Germany.²² To some extent, this is probably true also for products within an industry. If so, the selection of the country whose weights are to be used may be an important problem in international unit labor cost comparisons by industry.

One method of handling these differences is to use a cross-weighting or "ideal index" formula, which is equivalent to the geometric average of the two ratios. In the case just cited, Gilbert and Kravis concluded that German per capita GNP was 38 percent of U.S., based upon a geometric average of the two sets of weights. A cross-weighted measurement may offer the best solution from an international standpoint in studying an individual industry, but a U.S.-weighted comparison would be operationally more meaningful from the standpoint of the U.S. industry.

¹⁷ For a more fundamental discussion of this general type of weighting problem, see Mark, *op. cit.*

¹⁸ See *Industrial Production* (Board of Governors of the Federal Reserve System), 1959 revision, p. 30.

¹⁹ Irving H. Siegel, "Aspects and Meaning of Productivity Measurement," *Productivity Measurement* (Paris, Organization for European Economic Cooperation, European Productivity Agency, 1955), Vol. I, p. 51.

²⁰ See *Indexes of Output per Man-Hour in the Petroleum Refining Industry, 1919-59* (Bureau of Labor Statistics, 1962).

²¹ Milton Gilbert and Irving B. Kravis, *An International Comparison of National Products and the Purchasing Power of Currencies* (Paris, Organization for European Economic Cooperation, 1954), p. 39.

²² The time-series analogue of this problem is the question of using base-period (Laspeyres) weights versus current-period (Paasche) weights.

In comparing unit labor costs, a desirable preliminary step in dealing with the weighting problem is to prepare at least two comparisons, one based upon U.S. production and the other upon European or other foreign area production. The first step would represent the hypothetical unit labor cost for each country to produce a U.S. product mix, and the second would represent the hypothetical cost for each country to produce the foreign product mix.²³

Quality Differences. Most industries produce not only a number of different products but a variety of sizes, specifications, and qualities of many of these products. Usually, there are recognized ways of totaling the physical volume of different sizes and specifications of the same product, and these in combination with value totals are frequently adequate for statistical purposes. Quality differences, however, are often much more troublesome. A case in point is open-hearth versus Bessemer steel. Belgium produces a large proportion of high phosphorous basic Bessemer steel, while U.S. output consists mainly of low phosphorous open-hearth steel. For many products and uses, Bessemer and open-hearth steels may be interchangeable, but open-hearth steels typically have greater tensile strength and cannot be equated with typical Bessemer steel ton for ton for steel products requiring tensile strength. In such cases, an allowance for quality difference should be contained in the weighting system.

²³ To express these unit labor costs algebraically, let:

Q_o = production in the United States,

Q_e = production in a specified foreign country,

E_o = labor expenditures in the United States,

E_e = labor expenditures in the foreign country,

and let the summation extend over all products of the industry.

Then,

the actual unit labor cost in the United States is:

$$(1) \frac{\sum E_o}{\sum Q_o}$$

the actual unit labor cost in the foreign country is:

$$(2) \frac{\sum E_e}{\sum Q_e}$$

the estimated labor expenditures required in the foreign country to produce a composite unit of product of the United States is:

$$(3) \sum \frac{E_e Q_o}{Q_e + \sum Q_e}$$

the estimated labor expenditures required in the United States to produce a composite unit of product of the foreign country is:

$$(4) \sum \frac{E_o Q_e}{Q_o + \sum Q_e}$$

Thus, the two comparisons are (3) versus (1) and (4) versus (2).

²⁴ Care must be taken to adjust for the gradual reduction of quantity of yield at successive stages. See *Man-Hours Per Unit of Output in the Basic Steel Industry, 1939-55* (BLS Bulletin 1200, 1956), p. 22.

Inventory and Related Adjustments. In some cases, net shipments data are used in the absence of adequate production data. In these cases, it may be necessary to adjust for inventory changes, intraindustry shipments, imports of semifinished products for further processing, and shipments of secondary products by other industries. Since unit labor cost comparisons data usually cover a full year, inventory adjustments may not be large. Over one complete business cycle or more, they tend to offset each other, but they can significantly affect estimates of change between successive years.

Vertical Integration. The extent and the kind of integration of the same industry may vary considerably among countries. More of the clay pits may be operated as part of the brick plants in one country than in another, or more of one of the later stages of processing may be carried out by plants in a given industry in one country than in another. Or some of the services related to the operation of the industry, such as guard service, machine repair, and advertising, may usually be contracted out in one country and performed by plant employees in another country.

The best way of achieving comparability where the necessary data exist is to adopt a standard industry definition, indicating a clear point at which industry operations are held to begin and to end. It is necessary, then, to exclude production and expenditure data connected with all prior operations or subsequent operations which may be performed within an integrated industry, and this may prove to be a difficult adjustment.

An alternative is to adopt an additive weighting system, divided into stages of production, which can be used to determine the incremental cost at each successive stage.²⁴ In comparing the primary iron and steel industry of Luxembourg or of Italy with that of the leading steel countries, additive weights are probably the best solution. In Luxembourg, the industry has a high proportion of blast furnaces, while in Italy, it has a high proportion of rolling and finishing mills.

Other Methodological Considerations

In addition to measuring labor expenditures and output, unit labor cost estimates must take account of the factors of time and currency con-

version. The treatment of these factors has a bearing upon both numerator and denominator of the cost ratio, as discussed below.

Time Periods and Time Trends. International comparisons of unit labor costs should be made from annual data and for a number of different years rather than for only a single year. Comparisons of unit labor cost are more dependable if made for a number of years, since business recessions affect different countries in different degrees and sometimes in different years. Output per man-hour has been found to increase most rapidly during periods of rising production and plant utilization, and to decline or increase less rapidly during periods of falling production.²⁵ Similarly, there is evidence that unit labor cost tends to rise less rapidly or to decline more rapidly during periods of rising production than during periods of falling production. The influence of fluctuations in production upon unit labor cost may vary between countries because of, for example, different wage practices, layoff practices, and technical production methods.

The necessary basic data are likely to be available for different years in different countries. In the United States, for example, much of the basic data come from the Census of Manufactures, which was taken most recently for 1958 and is to be taken about every 5 years, and selected data are kept current by the Annual Survey of Manufactures, BLS employment and earnings reporting, and other sources. In other countries, some of the most important sources also are available only for selected years and not usually the same years as in the United States. Therefore, the most practical method of making international comparisons is to build up estimates for a series of years in each country.

This solution offers the advantages of providing comparisons at times of different levels of plant utilization and total output from country to country. Also it permits comparisons of the time trends in cost in different countries as well as of the level of cost in each country. From the discussion of comparability and the adjustments necessary to achieve it, it is clear that the degree of approximation of unit labor cost comparisons will vary greatly from industry to industry. In many cases, comparisons of time trends will be much more dependable than comparisons of level.

The definition of the industry or the degree of integration, for example, will often differ considerably from one country to another but may not differ greatly from year to year within each country.

Conversion to Dollars. Labor costs are paid in each country, of course, in the currency of that country, and it is best to calculate unit labor cost for each country first in its own currency. Only after the final figures are obtained should conversion into dollars take place.

The principal purpose served in the conversion of this one element of cost into a common currency unit is for analysis of foreign trade. To the extent that the products of an industry do not move in international trade and are not likely to do so, the conversion may not be of direct use. Time trend comparisons may still be useful in cases where products do not move in international trade, but such comparisons can be made without converting to dollars. The conversion into dollars would be more meaningful if data were available on unit total cost instead of merely unit labor cost.

For foreign trade analysis, conversion to dollars should be made at commercial exchange rates, which for most countries are close to official exchange rates. Where commercial rates show only minor deviations from official rates, it is more convenient to use the stable official rate.

When one or more national currencies are revalued in relation to the dollar, unit labor costs in terms of dollars at the official exchange rate usually show abrupt changes, at least temporarily. It is sometimes objected that it is not proper to show a reduction in foreign costs in terms of dollars when there was no reduction in terms of the national currency, as when the French franc underwent a 16.7-percent devaluation in 1957 and a 14.3-percent devaluation in 1958. This overlooks the fact, however, that both the purpose and the result of the devaluation were precisely to lower the costs of French producers in the international market.

It is true, however, that the abruptness of the change is overstated by this procedure. International orders and deliveries may take many months, contracts may be written in dollars or in the currency of the supplier or the customer, and adjustments may be made for currency

²⁵ See *Trends in Output per Man-Hour in the Private Economy, 1909-58*, op. cit., pp. 4-12, for a description of the historical trend in the United States.

devaluation on delivery. Dollar prices of many items may not be changed despite the devaluation. This is likely to be particularly true of items which have already established their market position. Finally, in the case of France, a form of export subsidy applied to most exports in the middle 1950's, and this has not been the case since devaluation. It is impossible to allow for contract terms when making international comparisons, but allowances for export subsidies should be made in some cases.

Conclusions and Limitations

It appears feasible to prepare international comparisons of unit labor cost for some industries

and some countries, but it is going to be hard and time-consuming. These comparisons are being made by many individuals and agencies, and often without adequate attention to the technical questions raised here. It seems clear that comparisons of the absolute level of unit labor cost among countries will be subject to a considerable margin of error even in mining and basic materials manufacturing industries and to a still greater margin in most finished goods industries. Time trend comparisons will be subject to less error and therefore might be attempted in more industries. Efforts should be concentrated on the principal industrial countries, and the possibility of appreciable error should be clearly indicated in the resulting reports.

Significant Decisions in Labor Cases*

Labor Relations

Hot-Cargo Agreements. In two cases decided on the same day, the National Labor Relations Board struck down as illegal hot-cargo agreements certain provisions in collective bargaining contracts between the Teamsters union and employers.

In the *Patton Warehouse* case,¹ the Board considered a "protection of rights" provision, which stated that "It shall not be a violation of this agreement and it shall not be a cause for discharge or disciplinary action in the event an employee refuses to enter upon any property involved in a labor dispute or refuses to go through or work behind any picket line, including the picket line of unions party to this agreement and including lines at the employer's place or places of business."

Section 8(e) of the Labor Management Relations Act deems an unfair labor practice and voids any agreement whereby the employer "ceases or refrains or agrees to cease or refrain from handling, using, selling, transporting, or otherwise dealing in any of the products of any other employer or to cease doing business with any other person."

In discussing the legality of the contract provision, the Board noted that section 8(b)(4), which was a part of the LMRA before section 8(e) became law, specifically provided that refusal by a worker to cross picket lines of a duly authorized strike was not unlawful. Prior to the enactment of 8(e), it had been held that a contractual provision whereby the employer agreed not to discipline an employee for failing to cross a picket line at another employer's premises would be legal, at least to the extent that it did not go beyond the 8(b) proviso. Upon examining the legislative history, the Board concluded that the enactment of 8(e) was not intended to abrogate this employee right. Hence, a contract clause which grants immunity to individual employees from disciplinary action for failure to cross a

picket line would be valid under section 8(e) if it did not go beyond the 8(b) proviso. Such clauses, the Board held, must be limited to protected activities engaged in by employees against their own employer or activities against another employer involved in a duly authorized strike.

The Board found that the disputed clause went beyond these requirements and was, therefore invalid under 8(e). It noted that the provision was broad enough to prevent an employer from disciplining employees who refused to cross picket lines at another employer's place even where there was no duly authorized strike. The effect of this clause was to require the employer to "agree to cease or to refrain from handling the products of, or otherwise dealing with the employer whose products or services are under the union's ban."

The Board also struck down another contractual provision which stated that "It shall not be a violation of this agreement and it shall not be a cause for discharge or disciplinary action if any employee refuses to perform any service which, but for the existence of a controversy between a labor union and any other person (whether party to this agreement or not), would be performed by the employees of such person." The Board noted that it had been held lawful under 8(b)(4)(B) for unions engaged in a labor dispute to exert pressure on another employer who, by arrangement with the primary employer, knowingly does work which ordinarily would have been done by the primary employees in the absence of a dispute. The disputed provision was illegal, in the Board's opinion, because it went further than the law permits. It would have permitted pressures on a secondary employer even where that employer did not receive the work through an arrangement with the primary employer.

The Board invalidated two further contract clauses: The first of them provided generally that sanctions will not be imposed upon employees who voluntarily choose not to handle goods or

*Prepared in the U.S. Department of Labor, Office of the Solicitor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

¹ *Local 413, Teamsters union and Patton Warehouse, Inc.*, 140 NLRB No. 136 (Feb. 26, 1963).

equipment involved in a labor controversy; the second stated that the employer would continue his business relationship with a struck employer by any method which he deemed appropriate, so long as he did not use employees who exercise their individual rights under the agreement of refusing to perform their normal duties.

The Board reasoned that an employer may by contract waive his right to discipline employees for their refusal to cross a legitimate picket line at a struck employer's premises. But this does not confer a corresponding right on a union to insist that its policy against handling struck goods be embodied in the bargaining agreement. The inclusion of such clauses would violate section 8(e).

A clause which would have prohibited subcontracting with any person who did not observe the wages, hours, and conditions of employment established by labor unions having jurisdiction over the type of service performed was also invalidated by the Board. It rejected the argument that these provisions were designed to preserve jobs of employees in the bargaining unit. It was noted that the provision would dictate to the employer the persons with whom he is permitted to do business rather than obliging him to refrain from contracting out work previously performed by employees in the bargaining unit.

The *Brown Transport* case² involved provisions substantially similar to those in *Patton Warehouse*. An additional feature of *Brown Transport* was a contract clause providing that should a tribunal of competent jurisdiction determine that employees were required to make deliveries to, pick up from, or enter the premises of persons involved in a labor dispute, the employer would provide additional benefits because of the additional difficulties and hazards involved. These benefits included an insurance policy providing life insurance, hospital and medical benefits, and compensation for partial and permanent disabilities at no less than three times the rate of similar benefits provided under the applicable workmen's compensation law. Where the employer was not covered by the workmen's compensation law, he agreed voluntarily to assume his obligations under the law and in addition provide the stipulated benefits.

² *Local 728, Teamsters union and Brown Transport Corp.*, 140 NLRB No. 137 (Feb. 26, 1963).

³ *Locomotive Engineers v. Baltimore & Ohio Railroad*, 83 S. Ct. 691 (1963).

The employer also agreed to provide wages at no less than three times the normal rate of pay, adequate protection against injury to the employee or his family, and reimbursement to employees for wages lost as a result of testimony before any tribunal with regard to these matters.

The Board regarded these provisions as a method for making it difficult, expensive, and unlikely for an employer under the agreement to insist that his employees handle hot-cargo goods or equipment. The provisions, therefore, were found in violation of section 8(e) of the act.

Railway Labor Act

Work Rules. The U.S. Supreme Court ruled³ that railroads and unions, after exhausting procedures prescribed by the Railway Labor Act for the settlement of labor disputes, are free to resolve their differences by any means suitable, subject only to the President's creation of an Emergency Board under section 10 of the act.

In February 1959, the Association of American Railroads proposed creation of a Presidential commission to investigate and report on the possibility of work-rule changes in the industry due to technological developments. This proposal was refused by the union. On November 2 of that year, the railroad carriers served notice, pursuant to section 6 of the Railway Labor Act, that they intended to bring about certain changes in the agreements affecting pay rates, rules, and working conditions. Section 6 requires each party to give at least a 30-day notice of intended changes in such matters, provides for conferences between the parties, and forbids any changes until the controversy has been acted upon by the National Mediation Board as required by section 155 of the act, unless the Board's services are not requested or offered within 10 days following the conferences. After the conferences were terminated, the parties agreed to the creation of a Presidential commission whose activities were to be in lieu of mediation and Emergency Board procedures provided by sections 5 and 10 of the act. No agreement was reached as a result of the Commission's activities, and the unions asked the National Mediation Board to intervene. This intervention was also unsuccessful.

On July 17, 1 day after the Mediation Board terminated its services, the companies again served notice that, as of August 16, 1962, they

intended to change rules, rates of pay, and working conditions. On July 26, the unions brought suit, alleging that the proposed changes would violate the act. The carriers subsequently received permission to substitute their November 2, 1959, notices for those issued July 17, 1962.

Both a Federal district court and court of appeals held that the parties had exhausted the procedures of the act and must now settle the controversy between themselves, except insofar as it might become necessary to invoke the Emergency Board provisions of the act. The unions contested the court rulings, alleging that words used by the court of appeals in its decision implied that the right of the carriers to issue the notices under section 6 arose as a result of the unions' failure to bargain in good faith. The court of appeals had characterized the unions' actions as reducing negotiations to "sterile discussion." The Supreme Court noted that no evidence was introduced in this case regarding the bad faith of either party, and it specifically disapproved any contrary implication in the court of appeals decision.

On the other hand, it upheld the circuit court's conclusion that the procedures provided by the act had been exhausted and rejected the union argument that the standards contained in the notices about rule changes themselves violated the act. The Court reasoned that the act does not purport to regulate wages, hours, or working conditions; it merely seeks to provide means by which an agreement can be reached.

Reporting and Disclosure

Intraunion Grievance Procedure. A Federal district court in Tennessee held⁴ that a union had violated section 411(a)(4) of the Labor-Management Reporting and Disclosure Act by fining a member for taking a legal action against it without first exhausting union remedies as required by union constitution. The statutory provision forbids unions to discipline members for instituting actions before courts or administrative agencies.

The member filed charges on two separate occasions with the local union, alleging that the union had discriminated against him with respect to job referrals. In the first instance, the union's executive board dismissed the charges as improv-

erly drawn. In the second instance, the union, by a vote of the membership, refused to accept the charges. The member subsequently filed charges with the National Labor Relations Board, which declined to issue a complaint.

The union business agent then instituted charges against the member for violating the union constitution by filing charges with the Board without having exhausted union remedies. A hearing was held on the charges, at which the member presented no witnesses and declined to make any statement. His appeal of an adverse ruling was denied by the International Executive Board after he failed to make any additional statement and declined to meet with a union investigator. The matter will come before the international union's next general convention in 1966. When the member refused to pay the fine and the \$1 reinstatement fee, his tender of dues was refused and he was suspended from union membership and activities.

The union contended that the court was barred from considering the case by the statutory requirement that an aggrieved member exhaust union remedies before instituting legal or administrative proceedings against his union. The court found that the statutory provision did not prevent it from considering the matter, especially since the law's language is not mandatory but merely says that union members "may be required" to exhaust intraunion remedies before further action.

The union also argued that although the member had taken advantage of the union procedure, he had failed to make a good-faith presentation of his cause and his exhaustion of remedies was, therefore, only "technical." It cited his failure to make any effective statement before the local union and his refusal to meet with the international representative.

The court conceded that bad-faith use of union procedure may be grounds for denying access to the courts. It decided, however, that courts should not be required to judge the skill with which an aggrieved union member argues his cause. Furthermore, in view of the permissive language of the statute, the equities of each case must receive thorough court scrutiny. In this instance, the court held, a refusal to entertain

⁴ *McGraw v. United Association* (D.C., E. Tenn., Feb. 11, 1963).

the action would, in effect, be an adjudication on the merits of the case, since the member would have no place to turn if the court denied his plea. There was no evidence of bad faith on his part which would justify such dismissal.

Although it did not challenge the fairness of the union proceedings, the court found that the imposition of the fine upon the member violated section 411(a)(4). Furthermore, the union's action in suspending the man's membership, refusing his tenders of dues, and denying him the right to participate in union activities constituted a denial of freedom of speech and assembly in violation of section 411(a) (1) and (2).

Unemployment Insurance

Strikers' Qualifying Unemployment. The Supreme Court of California held⁵ that striking employees were entitled to unemployment compensation benefits from the date of their permanent replacement, since their joblessness from that date was no longer due to the trade dispute but to an intervening act of the employer.

After the expiration of a collective bargaining agreement between the employer and claimants' union and the failure of the parties to agree on a new contract, the employees went on strike. The employer subsequently notified the employees that it intended to resume operations and that all employees not returning to work by a certain date would be permanently replaced. After the specified date, the employer hired replacements for the employees who did not return and notified the latter of his action.

At various times during the strike, employees filed claims for unemployment compensation. The California Department of Employment granted benefits for the period from the date of notice of permanent replacement to the time claimants became reemployed, and its decisions were affirmed by the Unemployment Insurance Appeals Board. The trial court held that the evidence did not support the Board's decision that their permanent replacement was the direct and proximate cause

of the claimants' unemployment. The Board's decisions awarding benefits were set aside, except in cases where claimants successfully applied for reemployment between the hiring of permanent replacements and the end of the strike.

The lower court disqualified claimants under section 1262 of the California Unemployment Insurance Code, which reads:

An individual is not eligible for unemployment compensation benefits, and no benefits shall be payable to him, if he left his work because of a trade dispute. Such individual shall remain ineligible for the period during which he continues out of work by reason of the fact that the trade dispute is still in active progress in the establishment in which he was employed.

The Supreme Court, reversing the lower court, construed disqualification under this section as requiring two elements: volition and causation. The worker must voluntarily leave or remain away from his employment, and he must do so because of a trade dispute, if he is to be considered ineligible for benefit.

The Court cited its decision in *Bodinson Manufacturing Co. v. California Employment Commission* as establishing the volitional test. It held there that section 1262 was intended to disqualify workers who "voluntarily leave their work because of trade dispute."⁶

The causal test, the Court held, is inherent in the statutory definition of the disqualifying unemployment as being "by reason of the fact that the trade dispute is still in active progress." To illustrate, the Court cited its ruling in *Mark Hopkins* that subsequent permanent employment of a claimant would break the continuity of his disqualifying employment and the causal connection between his employment and the trade dispute.⁷

In the present case, the Court held, neither test barred claimants from benefits. Claimants did not remain away from their jobs voluntarily after permanent replacements were hired, since they had no job to which to return, and the causal connection between claimants' unemployment and the trade dispute ceased when the employer severed the employment relation by hiring permanent replacements. Thus, the causal relation between claimants' unemployment and the trade dispute was severed to the same extent as it would have been had claimants obtained new permanent employment.

⁵ *Ruberoid Co. v. California Unemployment Insurance Appeals Board*, No. L.A. 62914, Jan. 31, 1963.

⁶ Cal. 2d 321, 328 (1941).

⁷ *Mark Hopkins, Inc., v. California Employment Commission*, 24 Cal. 2d 744 (1944). In this case claimants were denied benefits because their subsequent employment was not permanent.

The Court rejected the plaintiff's contention that the lower court's decision found support in *Thomas*.⁸ (There, the Supreme Court denied benefits to striking employees who had refused to heed the employer's repeated calls to resume

work.) In distinguishing between the two cases, the Court pointed out that in *Thomas* the employer did not hire replacements and the jobs remained open to the striking employees.

The Court concluded that the Department of Employment correctly granted benefits to claimants for the period of their unemployment from the date they had been permanently replaced.

⁸ *Thomas v. California Employment Stabilization Commission*, 39 Cal. 2d 501 (1952).

Chronology of Recent Labor Events

March 4

WAGE REDUCTIONS up to 9.2 percent agreed to by the Rubber Workers union became effective for nearly 1,000 workers at the Dunlop Tire and Rubber Corp. in Tonawanda, N.Y. The same employees had received a 7-cent-an-hour wage increase in June 1962 but voted the reduction in an attempt to improve the company's competitive position in the tire industry. (See also p. 557 of this issue.)

THE U.S. SUPREME COURT, finding that all procedures under the Railway Labor Act had been exhausted, directed five operating rail unions to rely on self-help to solve their work-rules dispute with the carriers. The decision left the carriers free to make proposed work-rules changes and the unions free to strike, subject only to the creation of a Presidential Emergency Board which would maintain the status quo for 60 days. (See also pp. 549-550 and 557-558 of this issue.)

THE NOMINATIONS of John H. Fanning, to a second 3-year term as a member of the National Labor Relations Board, and Howard G. Ganser, to a 3-year term as a member of the National Mediation Board, were confirmed by the U.S. Senate.

THE 50TH ANNIVERSARY of the Department of Labor was commemorated at assemblies and banquets addressed by President John F. Kennedy and other speakers.

AN ORDER by the Department of Labor directed the U.S. Employment Service to promote employment on the basis of ability regardless of sex, to promote employer acceptance of women workers, and to insure that female as well as male applicants needing specialized placement services will receive them.

March 7

WITH RESPECT to stipulations protecting employees affected by mergers, the U.S. Court of Appeals in St. Louis ruled that the Interstate Commerce Act (Sec. 5(11)) takes precedence over the Railway Labor Act. In *Locomotive Engineers v. Chicago & North Western R.R. Co.*, the court found that the Interstate Commerce Commission has authority to provide for the adjustment of labor disputes arising from approved mergers.

March 11

IN *Carey v. General Electric*, the New York Court of Appeals returned 12 grievances to arbitration over a company argument that alleged defects in the union's procedure, contract language restricting arbitrator's authority, and conflict with NLRB jurisdiction exempted the cases from arbitration. The court held (1) that the decision as to procedural arbitrability was for the arbitrator to make, (2) that despite the restrictive contract language he had "jurisdiction to reach a decision on the merits," subject to an action to vacate any decision or remedy which exceeded the bounds of his authority under the contract, and (3) that the possibility of exercise of jurisdiction by the NLRB was irrelevant.

THE FIRST ANNUAL report on national manpower policy required under the Manpower Development and Training Act, was submitted by President John F. Kennedy to the Congress, accompanied by the report of Secretary of Labor W. Willard Wirtz on manpower requirements, resources, use, and training. (See MLR, March, 1963, pp. 237-254.)

A Mine, Mill and Smelter Workers Union petition on behalf of 126 zinc workers for eligibility to apply for adjustment assistance under the Trade Expansion Act of 1962 (Chron. item for Oct. 11, MLR, Dec. 1962) was denied by the U.S. Tariff Commission. Noting that imports of unmanufactured zinc have not increased since 1958, when absolute quotas were imposed, the Commission found that the union's claim for assistance on the basis of an alleged increase in average annual imports for the 1959-62 period over 1946-50 was not applicable under the act, because any import increases caused by trade concessions have been largely or completely offset by the quotas. (See also p. 562 of this issue.)

March 13

THE Builders Association of Chicago and the Carpenters and Joiners union signed a 2-year contract which is to provide about 35,000 carpenters in the area a wage increase of 20 cents an hour on June 1, 1963, and an additional 17 cents June 1, 1964.

A PRESIDENTIAL MEMORANDUM instructed heads of Federal departments and agencies to insure that job applicants in the Federal service are evaluated on the basis of ability, not age. Personnel systems outside the competitive service were directed to establish maximum age limits only when absolutely necessary.

March 14

A U.S. COURT OF APPEALS held that sections 101 and 102 of the Labor-Management Reporting and Disclosure Act give Federal district courts jurisdiction over union members' suit to enjoin the counting of ballots in a box allegedly different than the one in which ballots were deposited. The court affirmed a lower court decision that the ballots

need not be counted before members seek relief under the act. The case was *Beckman v. Iron Workers*.

March 15

A 2½-YEAR CONTRACT providing wage reopeners for July 1963 and August 1964 but no immediate wage increase was agreed upon by General Electric Co. and the Sheet Metal Workers for 2,500 employees at the company's Hotpoint Division plants in the Chicago area. (See also p. 556 of this issue.)

March 16

THE SIGNING OF AN AGREEMENT generally limiting the rate of job reductions to natural attrition partially settled the dispute between the Southern Pacific Railroad and the Brotherhood of Railway Clerks. (See also p. 558 of this issue.) Five additional issues were resolved by a three-man arbitration board appointed by President Kennedy.

March 19

JAMES L. McDEVITT, director of the AFL-CIO Committee on Political Education, died at the age of 64.

March 20

POSTMASTER GENERAL J. EDWARD DAY signed contracts making six unions—the Rural Letter Carriers (Ind.), Post Office Maintenance Employees (Ind.), Postal Clerks, Letter Carriers, Post Office Motor Vehicle Employees, and the Messengers—the official bargaining agents for about one-half million postal workers. The contracts are the first departmentwide agreements concluded under President Kennedy's Executive Order (Chron. item for

Jan. 17, MLR, Mar. 1962) allowing recognition of Federal employee unions. The agreements ban strikes and do not cover wages or other matters under congressional jurisdiction. On January 30, the Department of Labor signed a contract with the American Federation of Government Employees representing the Department's Washington, D.C., employees. (See also pp. 559-560 of this issue.)

THE NLRB ordered a Bremerton, Wash., employers' association to reinstate with backpay union members locked out and replaced by all members of the association when the union struck a single employer. The lockout had been agreed on before the strike and no nonunion employees were suspended. The case was *Industrial Conference Board and Kitsap County Retail Druggists' Association and Local 381, Retail Clerks Association*.

March 22

THE NLRB held that an employer's letter telling employees how to resign from the union during an annual "escape period" under a maintenance of membership contract clause was not unlawful, because it was neutral, noncoercive, and accurate. The case was *Perkins Machine Co. and Local 223, Electrical, Radio and Machine Workers*.

March 31

THE PHOTO-ENGRAVERS' UNION, ratified a contract with the Publishers' Association of New York City, leading to resumption of publication by eight New York City newspapers. (See also p. 555 of this issue.) Of the 10 unions involved in the dispute which began December 8, 1962, 8 accepted settlements providing for increase packages of \$12.63 weekly, and 2 unions, the Machinists and Electrical Workers (IBEW), agreed to return to work while contract negotiations continued.

Developments in Industrial Relations*

Wages and Collective Bargaining

Newspapers. Most major newspapers went on sale for the first time in 114 days in New York City as soon as the striking Photo-Engravers' Union ratified its contract on March 31 with the Publishers' Association. Seven of the ten unions involved in the strike lockout had already ratified contracts by this date; the Machinists and the Electricians returned to work pending settlement of their contracts.

The Photo-Engravers, last of the striking unions to settle, voted 213 to 104 to accept the approximately \$12.63 package increase recommended by New York City Mayor Robert F. Wagner. A settlement of the same total cost had been rejected March 27, and the package was then redistributed to meet members' demands. The ratified agreement called for a wage increase of \$3.50 a week the first year and \$4.65 in the second. A fourth week of vacation after 1 year's employment was added in the first year of the contract; in the second, the weekly contribution to the welfare fund will rise to \$3.30, from \$2.30, and weekly hours of work on the "lobster" shift will go from 36¼ to 35.

The Typographical Union, which was the first to strike the newspapers last December, ratified its agreement on March 24 after having rejected it on March 17. The proposed settlement had first been submitted to the parties by Mayor Wagner on March 7 and accepted by the publishers and the leadership of the ITU the following day.¹

Rejection by ITU membership vote of 1,621 to 1,557 came at a meeting where the offer was defended by Local 6 President Bertram A. Powers and International President Elmer Brown, as having met the three essential demands of the union. These were a common expiration date for all union contracts, a reduction of the workweek

from 36¼ hours to 35 on the day and night shifts and from 35 to 33¼ on the lobster shift, and a sharing in cost savings resulting from the introduction of perforated tape typesetting for stock market quotations. Several hundred members were reportedly turned away from the meeting because of lack of sufficient seating capacity.

The following Sunday at the regular monthly meeting of the local in Madison Square Garden, where the full membership could be accommodated, the same contract was ratified by a vote of 2,562 to 1,763. It provided a \$4-a-week increase in each of the 2 years, an increase in premium pay for the second shift to \$7 from \$5 and to \$14 from \$10 for the lobster shift, a 1¼-hour reduction in the workweek in the second year, a \$3-a-day premium for extra printers, an increase in the contribution to the pension fund estimated by the publishers at 38 cents a week, 3 days of sick leave a year instead of 1, and a reduction in the number of days substitute printers must work in a year to be eligible for various benefits.

On March 15, officers of the American Newspaper Guild agreed to submit a revised contract proposal to union members at six of the affected papers, where it was subsequently ratified. The new proposal included an average pay increase of \$4.13 effective November 1, 1964, in return for extending the contract expiration date to coincide with the March 31, 1964, date included in contracts with the other crafts.

Other unions involved in negotiations with the Publishers' Association and accepting the same \$12.63 package increase, were the Mailers, Stereotypers, Printing Pressmen, Paperhandlers, and Mail Deliverers. The percentage increase ranged from an estimated 7.5 percent for Photo-Engravers to 10 percent for Paperhandlers.

The 126-day Cleveland newspaper strike came to an end April 5, when the Typographers Union ratified a 26-month contract with the Plain Dealer and Press News by a vote of 339 to 286. The agreement provided a \$13.95 weekly package increase. The Machinists also ratified their agreement the same day. During March, the Stereotypers, Building Service Employees, Mailers, Photo-Engravers, and Operating Engineers ac-

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

¹ See *Monthly Labor Review*, April 1963, p. 426.

cepted 2-year \$10 weekly package increases, as had four other unions the previous month.²

In mid-March, the Chicago Newspaper Publishers Association renewed for 5 years an arbitration agreement with the Chicago Web Printing Pressmen's Union. The agreement—covering the Daily News, the Sun-Times, the Tribune, and American—was first entered into in 1902 and has been renewed every 5 years since. It provides for arbitration of all disputes arising out of existing contracts or contracts in negotiation. The publishers are protected against strikes or other interference with pressroom operations and the union is assured it will not be locked out.

Metalworking. General Motors Corp. and Ford Motor Co. agreed to meet individually with the United Automobile Workers to discuss establishing joint study committees prior to contract bargaining. United Auto Workers President Walter P. Reuther made the suggestion in letters to presidents of these companies and to five other makers of autos and agricultural implements—Chrysler Corp., American Motors Corp., Allis Chalmers Manufacturing Co., International Harvester Co., and Deere & Co. He proposed that talks begin a year prior to scheduled bargaining—that is, by July 1, 1963, in the auto industry and August 1, 1963, in the implement industry. In past years, the industry had not responded favorably to the Auto Workers' suggestions for advance discussion of contract problems.

The General Electric Co., and the Sheet Metal Workers' International Association, Local 571, representing 2,500 workers at the company's Hot-point Division plants in the Chicago area, reached agreement in mid-March on a 30-month contract with no immediate wage increase but wage reopeners scheduled in July 1963 and again in August 1964. Other issues, including arbitration procedures, were resolved in the settlement, which ended a strike of about 3 weeks. The contract was the first concluded with the company by the local, which had secured bargaining rights in an NLRB election on May 24, 1962.³

Elliott Co., a division of Carrier Corp., and the United Steelworkers of America, representing about 1,150 workers at Jeannette, Pa., agreed on March 8 to extend the present contract through March 31, 1965, with no increase in wages or sup-

plementary benefits and no reopening clause. Commenting on the extension, Glenn Myers, president of the Steelworkers Local 1145, explained "With the company now undergoing a modernization program in an effort to cut costs and increase its business, this will help management in its attempts to operate at a profit." The company undertook a \$9,300,000 modernization program last spring. It had reported substantial operating losses in four previous years.

In negotiations lasting less than a week, the Bell Helicopter Co. and the UAW, representing 3,000 production workers and office employees in the Fort Worth, Tex., area, negotiated in early February 41-month contracts well in advance of scheduled expirations of existing agreements; contracts were to expire July 7 for production workers, and August 12 for office employees. The pact covering production workers provided 5- to 8-cent-an-hour wage increases in each of 3 years, the first effective June 3, 1963, and improvements in vacation provisions and pension and insurance benefits. Office employees will receive an annual pay increase of 2.3 percent as well as the improved vacations and insurance. Cost-of-living escalator clauses were continued with 9 cents of the accumulated 11-cent allowance incorporated into base pay for both salaried and hourly employees.

Other Manufacturing. The number of hours of work guaranteed employees of George A. Hormel and Co., in Austin, Minn., was reduced by agreement with the United Packinghouse, Food and Allied Workers, representing approximately 3,500 employees.⁴ The company had guaranteed a 38-hour week (1,976 hours a year) with overtime paid at regular rates up to 2,000 hours. If hours exceeded 2,000, extra half time was paid for hours beyond 40 in any week. The new guarantee, effective April 1, 1963, will be 36 hours a week, a reduction of 104 hours yearly. This reduction could result in an earnings loss to top-rated workers of \$300 a year. A union spokesman said that in 1962, the company paid for 320,000 hours that were not worked and that the cut in guaranteed hours will roughly "take care of that excess."

² Ibid.

³ See *Monthly Labor Review*, August 1962, p. 913.

⁴ See also *Monthly Labor Review*, February 1963, p. 181.

In March, Armour and Co. announced plans to close the largest of its Sioux City, Iowa, meatpacking plants on June 16, 1963, as a result of heavy losses caused by production costs higher than those at other Armour plants and at competing plants. Approximately 1,200 workers, represented by the United Packinghouse, Food and Allied Workers, are employed at the plant.

Basic Witz Furniture Industries, Inc., and the United Brotherhood of Carpenters and Joiners of America, representing workers in Staunton and Waynesboro, Va., agreed to an extension of their collective bargaining contract to February 1, 1964. Wage increases of 5, 6, and 7 cents an hour, increased coverage under a company-paid insurance plan, and a liberalized vacation schedule were provided by the settlement.

Wage increases of approximately 5 percent were put into effect for hourly employees by E. T. Barwick Mills and E & B Carpet Mills of Georgia in early March. The increases were reportedly part of a wage movement being effected by southern tufted floor covering manufacturers.

About 30,000 of 47,000 Burlington Industries, Inc., employees will be eligible for a profit-sharing retirement program for hourly workers announced by the company in March. Retroactive to January 1, the company will invest a percentage of its profits above a specified minimum to provide retirement benefits for nonsalaried employees with 3 years of continuous service.

The Dow Chemical Co., in March announced a revised policy of job security for workers affected by automation for its Midland, Mich., installation, following consultations with officials of Local 12075, District 50, of the United Mine Workers. The policy provides (a) that workers displaced from their jobs as a result of automation will be provided employment for at least 3 months, with a plant labor pool to be established for the displaced workers if other work is not available, and (b) for retention of the workers' former rate of pay, for a maximum of 185 days, if they are placed in a lower paying occupation or in the labor pool. The statement of intent also affirms that in every case possible the company will make training available to help employees qualify for an up-graded job or to assist them to move to jobs providing equal remuneration to those lost.

⁵ See *Monthly Labor Review*, April 1963, p. 428.

Dow had issued a similar statement of intent in 1960, which, however, applied only to workers directly displaced by automation. The new statement included workers displaced because of exercise of seniority rights by other employees directly affected by introduction of automated equipment. The revised policy also created an advisory board to assure uniform administration and application of the job security provisions.

The United Rubber Workers, representing nearly 1,000 employees at the Dunlop Tire and Rubber Corp., in Tonawanda, N.Y., agreed to a revision in the rate structure resulting in wage reductions reportedly ranging up to 9.2 percent effective March 1. The workers, who had received a 7-cent-an-hour wage increase in June 1962 after a 27-day strike, voted the reduction to improve the company's competitive position in the tire industry. In 1960, Dunlop had moved its golf ball manufacturing from the Tonawanda plant to Greenville, S.C. (See addendum, p. 562.)

In anticipation of an employment decrease resulting from modernization of equipment, the American Oil Co.'s Sugar Creek Refinery (Missouri) offered its older employees early retirement with severance allowance payments. The severance allowance formula, based on age and length of service, was worked out in a 6-month agreement reached in February with the Oil, Chemical and Atomic Workers, representing some 600 employees.

Transportation. On April 3, President John F. Kennedy named New York attorney Samuel I. Rosenman as chairman of an Emergency Board to mediate the workrules dispute between the Nation's railroads and five operating brotherhoods, with Clark Kerr, president of the University of California, and Nathan P. Feinsinger of the University of Wisconsin Law School as members.

The railroads had scheduled layoffs for about 40,000 firemen⁵ on April 8 before the President intervened, but under the Railway Labor Act neither party may act for at least 60 days after appointment of such a board.

Earlier in March, leaders of the operating brotherhoods had met with railroad representatives in Chicago for the first time since June 1962. The meeting was initiated by the brotherhoods in February and followed the Supreme Court's

decision on March 4, calling for the parties to rely on self help.

The Southern Pacific Co., and the Brotherhood of Railway Clerks on March 16 signed an agreement covering about 11,000 employees in seven Western States, thus settling their long job security dispute. Five unresolved issues were submitted to binding arbitration, at President Kennedy's request. The agreement provides that "abolition of permanent positions shall be restricted in accordance with the principles of natural attrition." The company has the option either to eliminate the position vacated by the worker leaving or to eliminate some other job it considers obsolete. The worker whose position is eliminated and who cannot claim another through seniority loses his job and, under terms of the agreement, receives a furlough allowance up to 70 percent of his normal pay for 1 year and 60 percent for an additional 4 years. He will be entitled to job retraining under a program set up by the railroad and the Federal Government.

Workers retained in service at lower paying jobs will be provided a displacement allowance for 5 years in order to guarantee them against income loss. They will be provided moving and travel expenses and guaranteed against loss from sale of a home or disposal of a leased home. An employee choosing to resign rather than accept a new assignment would receive separation pay ranging from 60 days if he has less than 1 year's service to 360 days if he has 5 years' service or more. The agreement was effective April 1, 1963, but was to be applied retroactively to October 22, 1958, thus benefiting 4,000 employees laid off since that time.

In addition to permitting reductions in the number of positions by attrition, the contract provides that if the carrier's freight tonnage drops more than 5 percent in any quarter compared with the same quarter of the previous year, the number of permanent clerks' jobs may be cut by the percentage in excess of 5 percent.

Extra boards, set up in 29 towns and cities, are guaranteed at least 7 percent of total permanent positions in each master seniority region. Extra board employees, and assigned employees, will be guaranteed 40 hours' pay.

The arbitration award, issued March 23 and covering the five unresolved issues, specified that if business improves after a loss of more than 5

percent of the road's freight and a consequent layoff, the road must restore a proportionate number of jobs. Although jobs may be cut in emergencies, the award holds that they must be restored within 30 days after termination of the emergency. If the cutbacks last more than 6 months, the employees affected would be entitled to all the protective benefits provided workers permanently laid off except separation allowances. If the railroad introduces new methods or procedures that require new skills for employees to retain their jobs, it will provide on-the-job training. If an extra board employee has to travel out of town to his job, he is to be compensated for all waiting time beyond 1 hour at the beginning and end of the shift; if he has to stay overnight, he will be allowed \$7.50 and daily expenses for meals and lodging.

American Airlines, Inc., and the Air Line Pilots Association's Master Executive Council for that airline agreed March 15 to an 18-month contract covering about 1,600 pilots and 600 flight engineers. The agreement represented a departure from the parent union's policy of having a qualified pilot in the third seat of the cockpit by accepting the principle that flight engineers need not be qualified as pilots. Flight engineers in the future would be represented by the pilot group. The Pilots Association reportedly expelled and fined the members of the American Airlines Master Executive Council and requested a U.S. district court in New York to enjoin the company from signing the contract.

The requirement that the third man in the cockpit be a qualified pilot has been a major bargaining aim of the union since 1956; in November 1962, the union signed its first agreement (with Trans World Airlines, Inc.) that met this demand.⁶

The American agreement provided pilots a reduction in maximum flying hours from 85 to 75 per month on jet and 80 on piston planes with no change in salary. The company also agreed to assume pilots' payments for certain insurance and retirement benefits.

Other Nonmanufacturing. The New York Telephone Co. and the Communications Workers, representing 24,000 plant employees in the State,

⁶ See *Monthly Labor Review*, January 1963, pp. 70-71.

reached agreement February 28 under a wage reopener—the last in a 3-year contract scheduled to expire in February 1964. The agreement called for general increases ranging from \$2 to \$7 a week with additional pay boosts, up to \$4.50 a week, for approximately 2,000 employees whose jobs will be reclassified. Rezoning of certain cities resulted in additional raises for another 2,100 employees. The CWA had won bargaining rights for these workers in an NLRB election in 1961. The union attributed the size of the wage increase agreed to in 1963 to the fact that the workers had fallen a year behind in wage adjustments when they were represented by independent unions.

The Illinois Bell Telephone Co., on February 22 granted \$2 to \$4-a-week increases, effective February 24, to 1,900 accounting department employees in Springfield, Ill., and the Chicago metropolitan area. In a representation election held March 19, the International Brotherhood of Electrical Workers defeated the Federation of Telephone Clerks (Ind.) and the no-union choice. In an earlier election held February 6, on order of the Superior Court of Cook County, the Telephone Clerks defeated the IBEW; in November 1962, they had defeated the Teamsters in an NLRB election.⁷ The leadership of the Telephone Clerks had sought Teamster affiliation while an opposing membership faction favored affiliation with the IBEW.

The Realty Advisory Board on Labor Relations, Inc., and the Midtown Realty Owners Association on March 13 signed 3-year agreements with the Building Service Employees' International Union for about 21,000 commercial building employees. The agreements called for a 7½-cent-an-hour increase retroactive to January 1, 1963, for the Realty Advisory Board and to February 4, 1963, for the Midtown group. Additional increases of 6 cents in 1964 and 7½ cents in 1965 go into effect on the anniversary dates. Handymen will receive an additional 5 cents an hour in 1965, and night workers will receive a paid 30-minute lunch period within an 8-hour shift effective July 1, 1963. Elevator operators terminated because of automation will receive up to 11 weeks' pay instead of 10 and other employees up to 10 instead of 7. Pensions for employees with 25 years' service or more, including those workers already retired,

will be \$50 a month instead of \$45, effective January 1, 1965. The union's consent must be obtained before the employer may contract out work and the new contractor must become a party to the agreement.

A unique feature of the agreement is the establishment of an automation employment pool to provide work opportunities in the industry for long-term employees displaced by automation. Preference will be given to those employees closest to retirement.

On March 31, 1,400 employees of the St. Joseph Lead Co., represented by the United Steelworkers of America, ratified a 3-year contract ending an 8-month strike at the company's mines and mills in southeastern Missouri. The contract, estimated by the company to increase hourly employment costs by 31.3 cents, provides an immediate 10-cent-an-hour wage increase and an additional 5 cents in the third year. It also calls for a job evaluation program, with resulting changes in rates to be put into effect in the second year. The company estimated hourly cost increases at 9 cents per upgraded employee, with an additional 1.3 cents an hour earmarked to maintain the pay of those whose jobs were classified into lower categories. Also in the second year, the company will pay the full cost of dependents' health and welfare benefits. In the contract's third year, the company will pay an additional 3 cents an hour for pensions.

Wage-rate increases totaling 38 to 40½ cents an hour were provided by 2-year contracts concluded in mid-March by the New England Road Builders Association and the Building Trades Employers' Association of Boston with the International Union of Operating Engineers, representing 3,500 heavy equipment operators. Effective March 1, 1963, rates were increased 15 cents; rates will advance an additional 8 cents in September 1963 and 15 cents more in March 1964. At that time, some workers will receive an additional 2½-cent wage increase. Workers have the option of using 2½ cents of the 1964 advance for increased medical and hospital benefits. Two cents a man-hour is to be paid to establish a training and apprenticeship program.

The U.S. Post Office Department and six unions, on March 20, signed their first collective bargaining agreement affecting 550,000 field service employees throughout the Nation. The 1-year con-

⁷ *Ibid.*, p. 67.

tract was signed by Postmaster General J. Edward Day with the Letter Carriers, Postal Clerks, Motor Vehicle Employees, Special Delivery Messengers, Rural Letter Carriers (Ind.), and the Association of Post Office and General Service Maintenance Employees (Ind.). It does not cover salaries or supplementary benefits, which are fixed by Congress, but includes a wide variety of items such as the use of bulletin boards, a new grievance procedure, scheduling of vacations, and reassignments. The agreement is a result of the President's labor-management program for the Federal Government which outlined recognition rights for Federal employee unions.

Union Developments

The AFL-CIO, through its legislative director, Andrew J. Biemiller, announced March 10 that it would not seek a 35-hour workweek in 1963 through amendment of the Fair Labor Standards Act (FLSA). Mr. Biemiller also announced that the AFL-CIO would not ask Congress in 1963 to extend coverage under that act to retailers with sales of \$500,000 or more or to raise the minimum wage. Instead, it planned to concentrate on obtaining extension of coverage to 4 million restaurant, laundry and dry cleaning, motel and hotel, and hospital workers and a reduction in the overtime exemption for workers processing agricultural commodities.

AFL-CIO President George Meany, appearing before the House Ways and Means Committee on March 13, urged that Congress cut taxes immediately by \$10 billion instead of over 3 years as the administration proposed. He further urged that the cuts be made in the lower income brackets to stimulate consumption, with postponement of tax reforms, rate reductions on higher incomes, and reduction of the 52-percent corporate income tax. Mr. Meany opposed a major administration reform that itemized tax deductions be limited to amounts in excess of 5 percent of income and proposals for elimination of tax credit on sick pay and employer payment of workers' group life insurance policies in excess of \$5,000.

A floor amendment offered by three Senators (Morse of Oregon; Williams of New Jersey; and McNamara of Michigan) resulted in withdrawal of objections by the AFL-CIO and transit unions to

a bill providing for grants and loans to improve facilities and equipment of commuter transit systems. The unions and the AFL-CIO had demanded that the subsidies provided by the bill, as approved by the House Banking Committee, be denied to any areawide transit system not providing job security. The amendment required subsidized public agencies taking over private systems to agree to continue existing collective bargaining arrangements. The floor amendment also restricted the conditions under which Federal aid could be provided to public agencies to buy private operations, limiting such purchases to bankrupt companies or companies connected with existing publicly owned systems.

In early March, the AFL-CIO reported favorable first results of its organizing campaign aimed ultimately at 400 nonunion plants in the Los Angeles area. The campaign reportedly had resulted in card checks or National Labor Relations Board elections in 25 bargaining situations. As a result, the union had won representation rights in 18 establishments with 1,500 employees, but had been rejected in 4 establishments with 250 workers. Results were undetermined in 3 establishments with 850 workers.

The United Mine Workers of America was sued in the Philadelphia Federal District Court on March 11 by representatives of 16,000 pensioners and 7,000 widows of miners for failure to collect delinquent royalty payments owed to the Anthracite Health and Welfare Fund by mine operators in northeastern Pennsylvania. The suit, claiming \$10 million in damages, alleged fault from union officials' neglect of duty. William Bruno, an attorney for the petitioning miners, stated that pensioners had their monthly pension reduced from \$100 to \$50 and then to \$30. Death benefits to widows have reportedly not been paid in 6 years.

Pennsylvania Governor William Scranton, in releasing March 13 a report by Lewis Evans, a former Pennsylvania State Mines Secretary who investigated the explosion at the Robena No. 3 mine in Greensboro, Pa., in which 37 were killed on December 6, 1962, disagreed with the recommendation that three officials of the mine be prosecuted for failure to comply with the State's mining code. The Governor said that "it is important to emphasize that the three men aren't

charged in the report with any offenses which caused or contributed to the explosion." In October 1962, two men had been killed by an explosion at the same mine, which is operated by the U.S. Steel Corp. and reportedly is the world's largest. In early January, miners refused to enter without assurances that the mine was safe, and in late January they struck for 4 days, protesting the firing on January 29 of a fan attendant who had ignored orders from a superintendent to leave his post for other duties in another shaft 2½ miles away. Whether a fan attendant should be ordered to do other jobs was a major issue in the investigation of the explosion.

Commenting on the disaster W. A. Boyle, president of the United Mine Workers, said it "confirmed a belief I have held for some time—that we may be mechanizing the coal industry past the point of safety." He also commented that "This automation and mechanization has gone far beyond what Mr. Lewis was talking about back in the 1920's when he urged the mines to mechanize."

In Washington, D.C., office employees of the Wood, Wire and Metal Lathers International Union represented by the Office Employees International Union struck on March 7. The office employees were seeking seniority job rights, grievance and arbitration procedures, and a revised distribution of wage increases.

In late March, the NLRB ordered a new election to determine whether 8,000 truckdrivers and helpers in the Philadelphia area will continue to be represented by the International Brotherhood of Teamsters. The Teamsters defeated the dissident VOICE group by less than 600 votes in a November 1962 election.⁸ The election was set aside, however, on grounds of violence, threats of violence, and vandalism on the part of Teamster supporters.

Three Teamster officials were sentenced in Jersey City to prison terms ranging from 2 to 4 years for offering a substandard contract with the Ornamental Iron and Brass Products Co. in exchange for \$10,000 by its owner. The sentenced officials were Eustace Rober, president of Jersey City Local 660, Nunzio Provenzano, vice president of Newark Local 522, and Salvatore Briguglio, business agent of Union City Local 560.

Civil Rights

President John F. Kennedy announced in his civil rights message to Congress on February 28 that he had directed the Department of Justice to participate in cases before the NLRB involving charges of racial discrimination in labor unions and to advocate appropriate action. The President stated, "It is my hope that administrative action and litigation will make unnecessary the enactment of legislation with respect to union discrimination."

Under Secretary of Labor John F. Henning announced February 28 establishment of an Advisory Committee for Equal Opportunity in Apprenticeship and Training, consisting of representatives of labor, management, education, minority groups, and the public. The committee will formulate and review policy regarding discrimination in apprenticeship and training.

After a Negro worker complained that his grievance concerning an apprenticeship bid was not processed by the Metal Workers Union (Ind.), Frederick U. Reel, a trial examiner for the NLRB, recommended that the union be decertified as bargaining agent for employees of the Hughes Tool Co. of Houston, Tex. He recommended, on February 28, that a new certification election be held and that the union be required to follow a policy of nondiscrimination if it were recertified. The trial examiner found that there were separate locals of the union for Negro and white workers, that the more desirable jobs were reserved by agreement with the company for white employees, and that the white local had exclusive authority to handle grievances. He also found that failure to process the grievance represented a refusal by the union to bargain. The trial examiner stated that the case should be continued despite the fact that the union had amended its constitution and bylaws to eliminate racial discrimination and had concluded a new contract with the company that does not provide for such discrimination. He stated that voluntary discontinuance of illegal conduct after litigation has begun does not end a case.

On March 7, the Council on Human Relations and the Apprenticeship Council of the District of Columbia announced a survey to identify apprentices by race and trade to determine the existence of patterns of discrimination in certain trades.

⁸ See *Monthly Labor Review*, February 1963, p. 184.

Currently in the District of Columbia, 2,250 apprentices are enrolled in training programs in 130 different trades.

On March 21, Secretary of Labor W. Willard Wirtz issued an order demanding that contractors and unions engaged in constructing a gymnasium at Howard University in Washington, D.C., end racial discrimination in hiring practices or face Justice Department action to enforce the non-discriminatory clause in the contract awarded by the General Services Administration. The Secretary's action was the first of its kind since the 1961 Executive Order against discrimination on Government contract work and came after student protests over discriminatory practices of contractors and union. Howard University was established in 1867 by Congress; while it has both Negro and white students, it has historically accepted a special responsibility for the education of Negroes. On March 23, at the request of the President's Committee on Equal Employment Opportunity and the AFL-CIO, the Washington Urban League launched a campaign to recruit Negro journeymen in 12 building trades to work on the project.

⁹ See *Monthly Labor Review*, March 1963, p. 315.

Government

The United States Tariff Commission unanimously rejected a claim of the Mine, Mill and Smelter Workers Union on behalf of 126 zinc workers at Hanover, N. Mex., for eligibility to apply for adjustment assistance under the 1962 Trade Expansion Act.⁹ The criteria for approval of such claims are determinations (1) that imports of a commodity are entering the United States in increased quantities, (2) that the increased imports are due "in major part" to trade agreement concessions, and (3) that such increased imports are "the major factor" in causing, or threatening to cause, unemployment or underemployment of a significant number of the employees of the firm or subdivision of the firm involved. The Commission found that although there have been reductions in zinc tariff rates, their effect has been offset by imposition of import quotas and the quantity of zinc imported has not increased since 1958. The Commission determined further that general business considerations rather than the claimed increase in imports were the major factors leading to the shutdown of the Hanover mine and mill.

Addendum

EDITOR'S NOTE.—The following details on the settlement at Dunlop Tire and Rubber Co. supplement the information on page 557 and were received after publication deadline.

The Rubber Workers agreed to a rate reduction for incentive workers of 9.2 percent. Rates of time workers were not reduced and the company agreed to match pattern wage rate increases negotiated by the union with the Big Four Rubber Companies. Under the United Rubber Workers' Constitution, this action did not require International Union approval. Wage rates being paid at Dunlop before the reduction were reportedly higher than those in effect at plants of the major companies; it was also reported that increased production following the reduction in wage rates had restored earnings of some Dunlop workers to their previous level.

Book Reviews and Notes

EDITOR'S NOTE.—*Listing of a publication in this section is for record and reference only and does not constitute an endorsement of point of view or advocacy of use.*

Special Reviews

America's Forgotten Labor Organization: A Survey of the Role of the Single-Firm Independent Union in American Industry. By Arthur B. Shostak. Princeton, N.J., Princeton University, Industrial Relations Section, 1962. 140 pp., bibliography. (Research Report Series, 103.) \$3.75, cloth; \$3, paper.

This is the first full-length book on unaffiliated single-firm unions to appear in 35 years, ending a long neglect of such unions in recent times. It is difficult today to recall that before the passage of the National Labor Relations Act in 1935, single-firm unions—or company unions, as they were generally referred to—were considered a serious threat to national unions. The Wagner Act, which outlawed employer-dominated unions, the subsequent rise of the CIO in mass production industries, and organizing successes scored by AFL affiliates, all hastened the eclipse of the single-firm union. Literature on labor since World War II treats these organizations in only a paragraph or two, usually predicting their ultimate disappearance from the industrial scene.

Dr. Shostak's interesting book reminds us that these predictions have not come true, and while he concludes that the future of these unions is not auspicious, he adds that it is unlikely they will become extinct.

This eminently readable volume is based chiefly on personal interviews with officials of 36 blue-collar and 4 white-collar single-firm independent unions in New Jersey, officials of AFL-

CIO unions, and employers having contracts with unaffiliated unions. Extensively footnoted, the work attests to the author's familiarity with the literature on trade unions and industrial sociology. The bibliography on unaffiliated unions is by far the most comprehensive now in print.

The author classifies the blue-collar unions according to their strength in collective bargaining as either "weak" or "strong" unions, and while these are polar types, there can be little quarrel with this method as an analytical approach. The former are small organizations (typically less than 100 members), and they conduct their affairs in a manner commensurate with their resources. Unlike small locals of national unions, they are compelled to accept "ends set . . . by an employer." Although Shostak emphasizes repeatedly that these weak single-firm unions are not descendants of pre-Wagner Act company unions, this would seem to be true only in a chronological sense, because a comparison between these two types of organizations reveals startling similarities. The following statement appeared in an article written in 1938 ("Characteristics of Company Unions," *Monthly Labor Review*, April 1938, p. 827), but it could be inserted verbatim in Shostak's present volume.

In negotiations concerning wages and hours of work, . . . unions were handicapped by . . . their lack of knowledge of the financial condition of the company and of comparative wage scales in the industry. . . . Most of them had to rely entirely upon the statement of the situation as presented by the management. Practically none of the company unions had hired outside experts for assistance in negotiations. . . .

Nevertheless, unaffiliated local unions can be as assertive and effective as their counterparts in national unions, as Shostak demonstrates by pointing to 18 of the unions in his sample. Made up of larger bargaining units, they have the will and the resources to engage in hard and carefully prepared bargaining. The threat of affiliation with a national union, particularly the Teamsters, is often enough to secure desired gains. Unfortunately, the author does not speculate on how well these unions would fare in the absence of strong national unions in their respective industries.

Two chapters are devoted to single-firm unions of white-collar workers. Neither clerical nor

professional employees have as yet shown a marked interest in joining any type of labor organization, although the author holds out the hope that single-firm unions, by being "employer" instead of "labor movement" centered, may succeed where national unions have failed.

The problems which beset single-firm unions when, paradoxically, they seek to surrender part of their vaunted "independence" in an association with similar organizations, present one of the highlights of the book and also its major disappointment. The functions and shortcomings of three types of associations—the intracompany council, the industrywide association, and the State association—are ably analyzed. In sharp contrast, however, is the discussion of the two national associations. For reasons not made clear, the name of one is disguised as the National Association of Independent Unions, which will be rightly identified by anyone even slightly knowledgeable in the field, and the other federation is relegated to a footnote—unidentified! Little is said by the author regarding their activities or accomplishments and the merit of their claim to speak for "millions" of workers in unaffiliated unions.

In assessing the future of single-firm unions, Shostak concludes that the weak rather than the strong unions are more likely to survive, primarily because of their low visibility. He sees a distinct value in the continued existence of the single-firm union, since it "epitomizes an ideal of Jeffersonian democracy," but his own findings lend little support to this promise.

—HARRY P. COHANY

Division of Industrial and Labor Relations
Bureau of Labor Statistics

The Journal of Economic Abstracts. Cambridge, Mass. (Littauer Center M-12, Harvard University), Vol. I, No. 1, January 1963. 129 pp. Published quarterly under the auspices of the American Economic Association. Annual subscription, \$2; single issue, \$1.

Economists who want to keep in touch with the world literature of economics will welcome the appearance of the first issue of the *Journal of Economic Abstracts*. This long needed quarterly is the product of 2 years' planning by an ad hoc committee of the American Economic Association

(AEA) under the chairmanship of Professor Aaron Gordon, University of California. It is being published cooperatively by the contributing journals under the auspices of the AEA and the editorship of Professor Arthur Smithies, Littauer Center, Harvard University. The project was made possible by financial assistance from the Ford Foundation, which is underwriting the first 2 years' operation.

The *Journal of Economic Abstracts* covers journals published in 16 countries and in 8 languages. Abstracts are sufficiently lengthy to give not only an elaboration of the title but also a brief statement of methods used and conclusions reached. In most cases the abstracts have been prepared by the original author, assuring correctness and introducing variety in style. They are in contrast with the terse summaries appearing in *Economic Abstracts*, published at The Hague. The new journal differs in a number of other respects from the latter journal. It is limited to general economic journals, whereas *Economic Abstracts* dips widely into the special literature of industry, management, labor, and finance, and includes monographs as well as journal articles. The new journal gives complete coverage of all 24 (subsequently 32) journals that it abstracts. The Netherlands journal is necessarily selective. Abstracts in the new journal appear in English; in the other, in the language of the original article.

Abstracts are arranged alphabetically by journal, thus avoiding the unnecessary burden of subject classification. There is a list of authors but no subject index. While all but two of the journals abstracted in the first issue are included in one or more of three indexes (*International Index*, *PAIS*, and *Bibliographie der . . . Zeitschriftenliteratur*), an annual author and subject index in *Journal of Economic Abstracts* would facilitate bibliographic searching.

It is hoped that the success of this carefully planned abstracting journal in the field of economics will encourage similar projects in other disciplines in the social sciences where the lack of abstracting, accompanied by an expansion of scholarly publishing, poses a real problem in bibliographic control.

—RALPH E. MCCOY

Director of Libraries
Southern Illinois University

Governmental Manpower for Tomorrow's Cities. A Report of the Municipal Manpower Commission. New York, McGraw-Hill Book Co., Inc., 1962. 201 pp. \$6.95.

Sometimes an ad hoc commission is asked to find an answer to a problem on which there are major differences of opinion, but sometimes, as in this instance, the problem has either escaped general public awareness or been accorded widespread indifference. The concern of the Municipal Manpower Commission, which was supported by a Ford Foundation grant, was the manner in which urban areas are likely to be meeting their needs for future staff—administrative, professional, or technical (APT). The members of the commission were a group of distinguished students of public affairs. Its first chairman, James E. Webb, on becoming administrator of the National Aeronautics and Space Agency, was succeeded by John Corson, a professor of political science at Princeton University but better known as a management consultant and administrator, under whose leadership the report was completed. Their colleagues were William O. Baker, Edward W. Barrett, William H. Draper, Jr., Luther Gulick, Robert E. Merriam, Quigg Newton, and John A. Perkins.

The commission's findings and recommendations should be put into the hands of every civic leader and city council member in America. The gist of these is that, while the performance of local governments depends upon the abilities and zeal of their personnel, few of our cities have done much planning for their future manpower needs or have even given much thought to the problem. The city, the report points out, is coming off a very poor fourth in comparison with private industry, the Federal Government, and State governments, in the contest for good people. The blame rests, in large part, on the inadequacies of recruitment, pay, and training policies. The report also criticizes the independent local civil service commission, long supported as a requirement of "good government," for its inability to meet the needs of the situation.

The commission concludes that "a direct, massive effort must be launched to attract and hold more and better equipped APT persons in local governments," but concedes that this cannot be done apart from a concurrent effort to improve governmental structure as it relates to the fulfilling of the needs of our burgeoning urban areas.

Specifically, the report calls for the defining of up-to-date metropolitan objectives; the formulation of total metropolitan plans; the development of improved agencies and institutions for permanent and effective governmental teamwork and action; and the partnership of local, State, and Federal governments in the encouragement of comprehensive metropolitan planning and action.

At the same time, it urges the following steps be taken toward improving the quality of urban manpower: (a) Granting of clear-cut authority to the chief local executive for personnel administration; (b) abolishment of the independent civil service commission or its reduction to an advisory function; (c) establishment of the merit principle as the basis of appointment and advancement of public personnel; (d) revitalization of current urban personnel practices, including the raising of salaries, the provision of career opportunities, and the encouragement of employee mobility (transfer between systems); and (e) assistance to universities to help prepare personnel for the needs of urban society.

—DAVID S. BROWN

Professor of Public Administration
George Washington University

The Law of Labor Relations in Sweden. By Folke Schmidt. Cambridge, Mass., Harvard University Press, 1962. 343 pp. \$6.

The author defines the topics of his book as those which, in the classical system of common law, are normally treated under the headings of contract, master and servant, and associations. He has assembled seemingly disparate elements into one textbook—questions of the law of procedure and other parts of public law; problems outside the limits of legal studies, e.g., political science, economics, or sociology—but all have a common denominator, the collective bargaining concept. It is the instrument used for introducing the complicated modern relationship between organized labor and organized management into the sphere of law. Schmidt points out that the book does not concern itself with the study of the free action of the parties before the conclusion of an agreement, the organization and structure of unions, their ideology, and the economic consequences of agreements or disputes. They are the task of economists, historians, and sociologists rather than the concern of legal science.

Within the legal framework of employment relations, a distinction is made between three main divisions: The law of the contract of employment, the law of labor relations, and the public labor law, which seeks to protect workers in case of accidents, ill health, overstrain, or loss of income in certain situations.

The history of the existing legislation, both in theory and practice, gives the reader a vivid picture of the unique system of the legal aspects of labor-management relations in Sweden. Continuous reference to specific court decisions makes the book particularly valuable to the student of labor law per se. To the American reader, the chapter on the Organization and Jurisdiction of the Labor Court is of particular interest, since the institution of the special labor courts, with the use of a combination of experienced judges and of lay members representing management and labor, has gained recognition in most European countries.

In the chapter defining the white-collar or manual employee, the tests are described which have been established by the courts to distinguish the employee from the independent contractor, the partner, or the middleman. A chapter devoted to the organization of the labor market analyzes the relations between the trade union and its members and between local unions and confederations; the right of membership; and the functions of the union in collective bargaining. It states that industrial unions hold a predominant position although several craft unions still exist.

In discussing the legal effects of the collective agreement upon individual members of the organization, reference is also made to German and American doctrines.

The chapter on the Right of Association is a textbook in itself. It includes an interesting section on union security provisions. Other chapters cover Negotiation and Mediation, Industrial Warfare, and Liability for Unlawful Actions.

The text, in spite of its scholarly approach and content, makes easy reading, for which the author must be highly complimented.

—ARNOLD L. STEINBACH
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Bureau of International Labor Affairs

Employer Concentration in Local Labor Markets.

By Robert L. Bunting. Chapel Hill, N.C.,
University of North Carolina Press, 1962.
182 pp. \$5.

To what extent do employers occupy a monopsonistic position in local labor markets so that they can exert, deliberately or not, a downward pressure on wage rates?

Professor Bunting's original and systematic study of the extent of concentration of employment of the largest firm, the 4 largest, and the 10 largest firms in each of 1,774 different labor markets in the United States furnishes part of the answer. Because his definition of a labor market is a standard metropolitan area or county where the largest firm employs at least 100 workers, his study accounts for about 93 percent of the Nation's employed labor force. Using employment data from the Bureau of Old-Age and Survivors Insurance (OASI) for March 1948, the author calculated concentration ratios with respect to the estimated total employment of each area and to nonagricultural employment minus professional, managerial, and skilled workers. The latter he calls "maximum ratios."

Professor Bunting finds employer concentration in local labor markets negligible. His distribution shows that the largest employer hired less than 50 percent of the total employment in 99.7 percent of all areas studied, and that the four largest employers employed less than 50 percent in 98.9 percent of the areas. Using maximum ratios, he finds concentration only somewhat greater.

The author refrains from concluding unequivocally that these measures necessarily indicate a low degree of monopsony power. He is too well aware of the limitations of his data, including problems of multiplant firms, statewide reporting, and omission of firms not covered by OASI, such as railroads and nonprofit institutions. What is not pointed out, however, is that even if these statistical problems were adequately resolved, the concentration ratios would not be reliable indicators of the extent of monopsony because they assume that all workers, irrespective of sex, age, skill, or race, are in competition with each other solely because they live in the same area. Furthermore, the assumption that all employed workers are "in the market" neglects a decade of research

revealing the unwillingness of employed workers to change jobs.

Although even the maximum ratio probably understates the extent of monopsony, the author does find that concentration is associated with smaller labor markets and with certain types of industry structures, especially those dominated by mining and textiles. These factors explain the relatively greater concentration in the Mountain and South Atlantic States.

—EVERETT J. BURTT, JR.

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Boston University

Federal Fiscal Policy in the Postwar Recession.

By Wilfred Lewis, Jr. Washington, Brookings Institution, 1962. xv, 311 pp. (Studies of Government Finance.) \$6.75.

This volume represents the first of a series of Studies of Government Finance sponsored by the National Committee on Government Finance, which was appointed by The Brookings Institution and financed by the Ford Foundation. The author, now with Robert Nathan Associates, Inc., completed the study while on leave from the U.S. Bureau of the Budget.

Roughly the first third of the text evaluates the actual effects of the built-in stabilizers upon gross national product (GNP) and employment during the period 1948–62. The direct stabilizers (individual income tax, unemployment compensation, and employment taxes) are found to have been much more timely and effective countercyclical devices than the indirect ones (corporation income taxes and excises). Although the latter loom large in amount, their effect may be perverse, as for example, when the lag in corporate income tax collections produces a Federal budget surplus after a recession is already underway.

The greater part of the book is devoted to a detailed analysis of the four notable lapses from high employment and continued growth that occurred in 1948, 1953, 1957, and 1960. In each case the economic magnitudes are broken down and changes attributed to the passive stabilizers, to active fiscal policy, or to exogenous factors. Deliberate antirecession fiscal policy seems to have been weakly conceived and tardily executed during each of the four recessions. In retrospect, the most powerful stimuli to recovery were the

automatic and nondeliberate factors. Throughout this closely reasoned analysis the author focuses attention on political realities that must determine economic policies as long as men are human. Most antirecession programs, for example, must be justified on long-term considerations, and spending programs are sometimes easier to justify than tax cuts because the benefits are concentrated rather than broadcast.

The implications for broad policy formation are clear: (1) prime reliance on the automatic stabilizers for prompt action against recession and (2) willingness to face political exigencies in dealing with more severe declines in GNP, when the built-in stabilizers become less effective. This is not at all a forlorn hope. The past 15 years have revealed a notable growth of sophistication in the use of fiscal policy, and the greater prominence and prestige of the professional economist bodes well for the future.

The author is to be congratulated on reducing his monumental task to a very readable and reasonable study, with statistical tables grouped in four appendixes. He has done precisely what he set out to do, without straying into related fields. He has resisted the ever-present temptation to create a whole new terminology, while using for his thorough and competent analysis such newer concepts as "implicit surplus."

Inevitably, timely analyses quickly become dated, but it is probably safe to say that no student of fiscal policy will be able to ignore Lewis' work.

—WALTER G. BECKER

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The Economy of British Central Africa: A Case Study of Economic Development in a Dualistic Society. By William J. Barber. Stanford, Calif., Stanford University Press, 1961. 271 pp., bibliography. \$6.50.

Depth and breadth of scholarship, coupled with an obviously deep felt interest in the economic well-being of the African, makes this an absorbing study of the history and the prospects for economic development in the Central African Federation. The skillful combination of fact and theory is refreshing, and it is comforting to find case studies do not necessarily have to be dry, devoid

of references to literature in the field, and over-cautious in analysis and conclusions.

The thesis of the study is readily stated. Dualism is perhaps the major fact of social, political, and economic life in central Africa. On the one hand is a money economy, dominated by Europeans, and on the other, an indigenous economy to which the Africans are for the most part restricted. Under what conditions can such an economy be expected to develop? Barber examines this question in detail after setting forth his definition of development, which requires that two conditions be met: (1) Expansion of real money economy and (2) improvement in the per capita real income of the indigenous population through time. The conclusions, carefully documented, are that, while the first condition has been met by the rapid pace of expansion, the second goal has not yet been met and may be more difficult to achieve. In recent years the supply of native labor at existing wage rates has become less than perfectly elastic, so that the stage is now set for rising real wage rates. If further expansion in the money economy also involves expansion of the areas of contact with the indigenous economy via monetization of indigenous agriculture or expansion of employment opportunities for the native population in the money economy, true development, as defined, will occur. But it is by no means clear that this will be the pattern of response to the new labor market conditions. Such a response will, in fact, require substantial modification of current social and perhaps political institutions. Professor Barber sees signs that some of the required changes are already underway but that the ultimate response path is not yet clearly established.

Any reviewer can, with diligence, find some areas of disagreement or dissatisfaction. Somewhat disappointing is the "theoretical interpretation" chapter, perhaps mainly because here the author is unwilling really to theorize. He insists that his assumptions be so detailed and so close to reality that his "theory" is, for the most part, a restatement in condensed form of his earlier presentation, which is both empirical and analytical in content. In another context, Barber's rejection of the Keynesian consumption function seems in error in the light of his own data. Particularly if his data are modified—as he suggests—

to eliminate African income and consumption, the Keynesian formulation would appear remarkably applicable. Reference to others who have contributed to the discussion of dualism, such as Boeke, Myint, and Higgins, would have been welcome. These and other reservations are of little importance when cast against the painstaking logic and compassion of the argument.

—JOHN R. MOORE
Department of Economics
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The Income of the Chinese Gentry. By Chung-li Chang. Seattle, University of Washington Press, 1962. 369 pp., bibliography. \$7.75.

As part of the Modern Chinese History Project at the University of Washington's Far Eastern and Russian Institute, this study is a specialized sequel to the author's broader work, *The Chinese Gentry*, published in 1955. Together, these books represent one of the most comprehensive treatments of this stratum (often labeled the "literati") of Imperial Chinese society and afford a wealth of data for scholars concerned with socioeconomic change. As in the first volume, Franz Michael has written an insightful introduction that provides a framework in Weberian terms to interpret the impact of the gentry upon the social, political, and economic fabric of China from the mid-17th to the early part of the 20th century (the period of the Ch'ing Dynasty). Any understanding of contemporary China surely rests on the place of this privileged elite in contributing to the transition from the Empire to the Republic and, more recently, to the Communist State.

Having identified in the earlier study the multifaceted activities of the gentry, the author in this present volume attempts to estimate the economic value of these functions. The gentry acted, for example, as civil, military, and clan administrators, teachers and scholars, doctors and lawyers, dispensers of relief, and landlords and merchants. Each function or service yielded important support for the gentry, who came to their status not through inheritance but through a highly competitive system of State-controlled examinations that stressed Confucianist tenets as the basis of Imperial Chinese society. (Only during the later stages of the Empire did the examination system

deteriorate and give way to title purchasing, thus undermining the role of this educated elite.)

The author's method of deriving gentry income is aggregative. Using various documentary sources, especially biographies from local gazetteers, he laboriously builds up income estimates for each functional source. While these approximations are crude, for the most part they check out with other independent estimates and may be accepted as reasonable. It is difficult to tell whether the gentry share has been changing, however, as the author focuses mainly on the latter part of the 19th century.

While officeholding provided a substantial portion of gentry income, Dr. Chang finds that it accounted, nonetheless, for less than one-fifth of the total in the late 19th century. Other gentry services—especially secretarial, teaching, and professional work in home communities—exceeded this amount by 75 percent and almost equaled landholding income. Mercantile activities also produced income approaching that for officeholding. Although gentry members moved fairly readily from one function to another, considerable income differentials existed among them.

The pervasiveness and importance of the gentry throughout Imperial China are also demonstrated in the author's attempt to estimate the proportion of gentry income to gross national product (GNP). This proves to be a bold effort (although relegated to an appendix)—the first published attempt to derive GNP for that period of Chinese history. Dr. Chang finds that by the late 19th century the gentry totaled 1.5 million and, with wives and children, accounted for about 2 percent of the Chinese population of more than 377 million. The gentry's share of GNP reached almost 25 percent, or, on a per capita basis, 16 times the average commoner income (the ratio of disposable income per capita was even higher).

The author has provided a most valuable set of data for understanding China on the eve of revolution, a period to which social scientists concerned with that nation today must pay increasing heed. While much needs to be built upon Dr. Chang's study, he has provided a substantial foundation.

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	Report No.	Pages
<i>Seattle, Wash., 1960</i> -----	237-9	12
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<i>Austin, Tex., 1960</i> -----	237-12	12
<i>St. Louis, Mo., 1960</i> -----	237-15	12

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	Bulletin No.	Pages	Price (cents)
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<i>Fort Worth, Tex., November 1962</i> -----	1345-27	28	25
<i>Columbus, Ohio, December 1962</i> -----	1345-28	28	25
<i>Miami, Fla., December 1962</i> ..	1345-33	20	20

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Current Labor Statistics

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

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

A.—Employment

TABLE A-1. Estimated total labor force classified by employment status and sex

[In thousands]

Employment status	Estimated number of persons 14 years of age and over ¹														Annual average	
	1963				1962											
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1961	1960	
	Total, both sexes															
Total labor force.....	74,382	73,999	73,323	74,142	74,532	74,923	74,914	76,554	76,437	76,857	74,797	73,654	73,582	74,175	73,126	
Civilian labor force.....	71,650	71,275	70,607	71,378	71,782	72,187	72,179	73,695	73,582	74,001	71,922	70,769	70,697	71,603	70,612	
Unemployment.....	4,501	4,918	4,672	3,817	3,801	3,294	3,512	3,932	4,018	4,463	3,719	3,946	4,382	4,806	3,931	
Unemployment rate seasonally adjusted ²	5.6	6.1	5.8	5.6	5.8	5.5	5.8	5.3	5.5	5.4	5.5	5.5	5.5	6.7	5.6	
Unemployed 4 weeks or less.....	1,553	1,814	1,996	1,697	1,960	1,540	1,681	1,702	1,805	2,536	1,523	1,527	1,578	1,897	1,799	
Unemployed 5-10 weeks.....	963	1,315	1,162	840	684	654	630	940	1,037	664	709	629	744	964	823	
Unemployed 11-14 weeks.....	598	485	361	300	292	229	295	358	255	230	212	307	676	411	353	
Unemployed 15-26 weeks.....	696	684	612	525	469	418	428	341	345	449	608	764	734	728	562	
Unemployed over 26 weeks.....	691	619	641	453	397	447	477	593	576	584	666	719	750	804	454	
Employment.....	67,148	66,358	65,935	67,561	67,981	68,893	68,668	69,762	69,564	69,539	68,203	66,824	66,316	66,796	66,681	
Nonagricultural.....	62,812	62,309	61,730	63,495	63,098	63,413	63,103	63,993	63,500	63,249	62,775	61,863	61,533	61,333	60,858	
Worked 35 hours or more.....	48,669	47,063	48,480	49,175	45,107	48,047	49,684	47,264	46,372	49,209	49,711	49,035	48,386	47,257	46,388	
Worked 15-34 hours.....	7,588	8,573	7,235	7,932	11,594	9,426	7,265	8,949	6,598	6,927	7,209	7,213	7,304	7,522	8,249	
With a job but not at work ³	2,436	2,432	2,172	2,243	2,021	2,133	2,680	6,657	7,343	3,748	1,944	1,822	1,929	2,946	3,279	
Agricultural.....	4,337	4,049	4,206	4,066	4,883	5,475	5,564	5,770	6,064	6,290	5,428	4,961	4,782	5,463	5,723	
Worked 35 hours or more.....	2,587	2,261	2,522	2,352	3,262	3,688	3,693	3,900	4,270	4,377	3,801	3,196	3,032	3,640	3,811	
Worked 15-34 hours.....	1,042	1,040	987	907	1,069	1,232	1,310	1,285	1,215	1,346	1,149	1,116	1,118	1,245	1,279	
Worked 1-14 hours.....	467	453	444	490	398	426	462	404	447	446	388	475	432	477	444	
With a job but not at work ³	241	267	249	316	153	129	101	182	133	122	89	172	201	200	190	
	Males															
Total labor force.....	49,675	49,508	49,269	49,574	49,719	49,974	50,110	51,657	51,733	51,832	50,272	49,568	49,436	49,918	49,507	
Civilian labor force.....	46,975	46,816	46,585	46,841	47,001	47,269	47,406	48,830	48,911	49,009	47,430	46,717	46,585	47,378	47,025	
Unemployment.....	3,013	3,293	3,080	2,522	2,259	1,881	1,991	2,327	2,406	2,698	2,296	2,134	2,888	3,060	2,541	
Employment.....	43,962	43,523	43,505	44,319	44,743	45,387	45,415	46,503	46,505	46,310	45,134	44,583	43,697	44,318	44,485	
Nonagricultural.....	40,251	39,994	39,839	40,782	40,703	41,131	41,052	41,899	41,732	41,421	40,687	39,925	39,553	39,811	39,807	
Worked 35 hours or more.....	33,648	32,710	33,648	33,946	31,704	33,774	34,769	33,483	32,952	34,624	34,579	34,043	33,505	32,984	32,511	
Worked 15-34 hours.....	3,439	4,026	3,251	3,612	6,130	4,428	3,261	3,316	3,183	3,244	3,223	3,282	3,300	3,587	4,100	
Worked 1-14 hours.....	1,688	1,779	1,593	1,760	1,618	1,628	1,433	1,449	1,337	1,518	1,713	1,578	1,556	1,511	1,360	
With a job but not at work ³	1,476	1,481	1,351	1,461	1,250	1,302	1,588	3,652	4,261	2,035	1,171	1,021	1,193	1,729	1,836	
Agricultural.....	3,711	3,529	3,666	3,537	4,040	4,256	4,363	4,604	4,773	4,889	4,447	4,258	4,144	4,508	4,678	
Worked 35 hours or more.....	2,383	2,074	2,281	2,181	2,908	3,168	3,180	3,327	3,634	3,743	3,365	2,916	2,792	3,132	3,365	
Worked 15-34 hours.....	730	786	751	656	692	694	780	819	687	733	706	781	821	827	792	
Worked 1-14 hours.....	384	423	400	424	307	281	309	293	332	305	291	400	343	370	348	
With a job but not at work ³	216	246	232	276	133	114	92	165	121	109	85	161	188	179	172	
	Females															
Total labor force.....	24,707	24,492	24,054	24,568	24,812	24,949	24,804	24,897	24,703	25,026	24,525	24,086	24,146	24,257	23,619	
Civilian labor force.....	24,675	24,460	24,022	24,537	24,781	24,918	24,773	24,865	24,671	24,993	24,492	24,052	24,112	24,225	23,587	
Unemployment.....	1,489	1,625	1,592	1,295	1,543	1,413	1,520	1,605	1,611	1,764	1,423	1,411	1,493	1,747	1,390	
Employment.....	23,186	22,835	22,430	23,242	23,238	23,505	23,253	23,260	23,059	23,228	23,069	22,641	22,619	22,478	22,196	
Nonagricultural.....	22,560	22,315	21,890	22,714	22,395	22,287	22,051	22,094	21,768	21,827	22,088	21,938	21,980	21,523	21,151	
Worked 35 hours or more.....	15,022	14,356	14,835	15,228	13,404	14,273	14,914	13,782	13,420	14,583	15,130	14,993	14,882	14,273	13,627	
Worked 15-34 hours.....	4,149	4,547	3,983	4,319	5,763	4,998	4,004	3,533	3,415	3,682	3,985	3,929	4,004	3,934	4,149	
Worked 1-14 hours.....	2,430	2,459	2,252	2,383	2,457	2,184	2,042	1,773	1,848	1,847	2,199	2,216	2,358	2,098	1,919	
With a job but not at work ³	960	950	820	782	771	832	1,092	3,005	3,082	1,713	773	801	736	1,217	1,206	
Agricultural.....	625	520	540	528	843	1,219	1,101	1,166	1,291	1,491	932	703	638	955	1,045	
Worked 35 hours or more.....	204	187	243	172	355	520	512	573	636	634	438	281	241	408	445	
Worked 15-34 hours.....	312	255	236	252	377	538	529	466	530	613	443	335	297	419	486	
Worked 1-14 hours.....	83	57	44	66	91	145	152	110	116	141	97	75	89	107	96	
With a job but not at work ³	26	20	17	40	27	15	9	17	12	13	4	11	13	22	17	

¹ Estimates are based on information obtained from a sample of households and are subject to sampling variability. Data relate to the calendar week ending nearest the 15th day of the month. The employed total includes all wage and salary workers, self-employed persons, and unpaid workers in family-operated enterprises. Persons in institutions are not included.

Because of rounding, sums of individual items do not necessarily equal totals.

² Unemployment as a percent of labor force.

³ Includes persons who had a job or business but who did not work during the survey week because of illness, bad weather, vacation, or labor dispute. Prior to January 1957, also included were persons on layoff with definite instructions to return to work within 30 days of layoff and persons who had

new jobs to which they were scheduled to report within 30 days. Most of the persons in these groups have, since that time, been classified as unemployed.

NOTE: For a description of these series, see Explanatory Notes (in *Employment and Earnings*, U.S. Department of Labor, Bureau of Labor Statistics, current issues).

Figures for periods prior to April 1962 are not strictly comparable with current data because of the introduction of 1960 Census data into the estimation procedure. The change primarily affected the labor force and employment totals, which were reduced by about 200,000. The unemployment totals were virtually unchanged.

TABLE A-2. Employees in nonagricultural establishments, by industry ¹

[In thousands]

Industry	1963					1962							Annual average		
	Mar. ²	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1961	1960
Total employees.....	55,035	54,778	54,833	56,444	56,214	56,333	56,252	55,709	55,493	55,777	55,209	54,849	54,056	54,077	54,347
Mining	617	613	617	628	638	645	651	658	648	661	657	647	640	666	709
Metal mining.....	80.0	78.9	78.3	78.9	78.9	79.4	80.3	83.8	87.8	89.2	88.5	86.9	85.8	87.1	93.3
Iron ores.....	24.7	23.3	24.4	25.1	25.9	26.4	28.3	29.0	29.8	29.7	28.4	28.4	27.7	27.5	33.2
Copper ores.....	27.9	28.0	28.0	27.8	27.7	27.7	27.9	28.8	28.8	29.2	28.9	28.9	28.8	28.9	28.3
Coal mining.....	139.2	140.4	140.2	142.2	143.8	142.6	141.9	129.9	142.8	145.0	146.5	149.2	155.5	152.2	
Bituminous.....	130.8	131.9	131.6	133.4	135.2	134.2	133.4	120.7	134.2	135.9	137.6	140.1	145.1	168.2	
Crude petroleum and natural gas.....	295.3	295.3	301.2	300.1	303.0	307.2	309.2	310.1	307.9	304.0	302.0	301.5	308.9	313.9	
Crude petroleum and natural gas fields.....	171.8	171.6	171.6	172.1	172.8	175.5	178.0	178.0	177.5	174.9	173.8	173.2	176.8	181.7	
Oil and gas field services.....	123.5	123.7	129.6	128.0	130.2	131.7	131.2	132.1	130.4	129.1	128.2	128.3	132.2	132.2	
Quarrying and nonmetallic mining.....	98.9	102.2	108.2	116.4	119.1	121.0	122.9	120.2	120.6	119.3	111.7	103.7	114.9	119.5	
Contract construction	2,306	2,240	2,349	2,532	2,801	2,936	2,978	3,031	2,982	2,839	2,749	2,589	2,328	2,760	2,882
General building contractors.....	694.2	731.4	786.2	861.7	889.1	903.2	929.2	916.4	873.0	843.0	808.5	723.0	860.8	911.7	
Heavy construction.....	383.1	409.6	471.1	579.3	648.4	667.6	685.4	675.0	624.5	594.7	506.6	419.5	565.6	581.3	
Highway and street construction.....	184.9	201.4	244.9	326.9	379.0	394.5	405.2	393.6	359.6	335.4	268.4	202.4	302.8	302.4	
Other heavy construction.....	198.2	208.2	226.2	252.4	269.4	273.1	280.2	281.4	264.9	259.3	238.2	217.1	262.9	278.9	
Special trade contractors.....	1,162.4	1,207.8	1,274.4	1,360.4	1,398.8	1,407.1	1,416.5	1,390.9	1,341.0	1,311.2	1,273.8	1,185.9	1,333.2	1,388.8	
Manufacturing	16,605	16,545	16,551	16,727	16,891	17,028	17,127	16,931	16,782	16,870	16,682	16,636	16,525	16,267	16,762
Durable goods.....	9,432	9,400	9,407	9,473	9,533	9,562	9,571	9,402	9,463	9,547	9,475	9,422	9,339	9,042	9,441
Nondurable goods.....	7,173	7,145	7,144	7,254	7,358	7,466	7,556	7,529	7,319	7,323	7,207	7,214	7,186	7,225	7,321
Durable goods															
Ordnance and accessories.....	219.2	219.0	220.3	221.0	221.6	220.4	220.7	221.6	217.0	211.8	211.6	211.0	209.5	200.6	187.3
Ammunition, except for small arms.....	114.3	114.1	114.8	114.7	114.2	114.0	115.0	113.7	110.7	108.5	108.2	107.3	103.1	93.9	
Sighting and fire control equipment.....	51.0	52.1	52.0	52.6	52.5	53.0	53.4	53.3	52.5	52.4	52.5	52.5	51.1	50.0	
Other ordnance and accessories.....	53.7	54.1	54.2	54.3	53.7	53.7	53.2	50.0	48.6	50.7	50.3	49.7	46.5	43.4	
Lumber and wood products, except furniture.....	574.1	574.8	579.2	592.0	608.6	620.7	629.9	639.6	632.9	635.8	609.6	591.3	572.6	600.5	636.8
Logging camps and logging contractors.....	80.2	82.4	88.1	94.0	97.2	101.2	104.5	103.7	101.8	90.3	82.6	77.3	91.5	92.6	
Sawmills and planing mills.....	258.3	259.7	261.9	262.9	273.9	277.1	280.1	279.0	281.6	272.5	266.5	259.6	268.9	294.7	
Millwork, plywood, and related products.....	139.8	140.6	143.6	146.4	148.9	150.7	152.9	149.2	149.6	145.8	142.6	137.3	141.3	146.6	
Wooden containers.....	37.3	37.5	38.7	39.0	40.0	39.6	40.5	40.8	41.2	40.3	39.4	38.9	40.8	43.2	
Miscellaneous wood products.....	59.2	59.0	59.7	60.0	60.7	61.3	61.6	60.2	61.6	60.7	60.2	59.5	58.0	59.6	
Furniture and fixtures.....	376.5	377.9	379.5	383.3	387.1	388.2	388.0	387.6	378.3	382.3	379.3	377.1	375.9	367.4	383.4
Household furniture.....	270.9	270.3	273.5	275.8	276.9	276.0	273.3	266.5	269.1	268.8	269.1	267.7	259.6	271.1	
Office furniture.....	28.8	30.0	30.5	30.7	28.5	28.2	30.3	29.2	29.7	29.1	28.5	28.6	27.4	28.3	
Partitions; office and store fixtures.....	35.1	35.4	34.9	35.7	37.8	38.0	37.7	37.2	37.1	36.4	35.8	36.1	36.2	39.0	
Other furniture and fixtures.....	43.1	43.8	44.4	44.9	45.0	45.8	46.3	45.4	46.4	45.0	43.7	43.5	44.2	45.1	
Stone, clay, and glass products.....	551.6	541.9	545.2	560.3	578.2	588.0	592.8	595.6	590.1	589.5	579.1	566.2	546.1	566.8	595.3
Flat glass.....	29.3	29.2	30.3	31.0	30.5	30.4	30.1	29.7	29.6	28.6	29.0	29.2	27.9	31.1	
Glass and glassware, pressed or blown.....	99.6	98.4	99.7	100.4	101.8	102.8	103.1	103.0	103.9	101.8	100.3	100.0	100.6	102.9	
Cement, hydraulic.....	34.8	36.3	37.9	40.3	40.8	41.4	41.7	41.5	41.3	40.0	39.0	36.3	40.0	42.8	
Structural clay products.....	64.9	65.9	68.6	70.6	71.4	72.5	73.1	72.1	71.8	71.0	69.5	66.8	70.7	76.1	
Pottery and related products.....	43.1	43.4	43.7	44.5	45.3	44.8	44.2	43.5	43.9	43.5	43.9	43.2	43.4	47.1	
Concrete, gypsum, and plaster products.....	136.6	138.3	144.9	154.7	160.7	163.2	165.1	163.0	162.2	157.9	149.3	136.2	150.2	155.4	
Other stone and mineral products.....	119.0	118.8	120.2	121.4	122.2	122.7	123.5	123.0	122.4	122.0	120.8	120.0	119.5	124.0	
Primary metal industries	1,150.1	1,137.6	1,124.2	1,124.4	1,118.7	1,123.1	1,136.4	1,134.7	1,134.7	1,166.0	1,193.8	1,221.3	1,221.1	1,142.3	1,228.7
Blast furnace and basic steel products.....	569.6	555.8	555.3	550.8	555.2	566.3	567.5	570.8	594.9	622.5	650.1	651.2	599.9	652.5	
Iron and steel foundries.....	195.9	195.3	195.3	194.9	195.5	196.6	193.8	194.0	196.9	196.5	197.0	195.9	186.0	203.6	
Nonferrous smelting and refining.....	66.8	67.4	68.2	68.7	69.1	69.4	68.9	67.8	68.8	68.6	68.5	68.6	67.4	70.8	
Nonferrous rolling, drawing, and extruding.....	177.1	176.6	176.8	176.7	177.5	177.5	176.8	177.3	178.0	177.6	177.5	177.1	169.9	175.6	
Nonferrous foundries.....	68.1	68.4	68.4	67.5	67.1	67.1	67.1	64.7	66.0	67.4	66.6	67.0	61.4	65.1	
Miscellaneous primary metal industries.....	60.1	60.7	60.4	60.1	58.7	59.5	60.6	60.1	61.4	61.2	61.6	61.3	57.8	61.1	
Fabricated metal products	1,113.6	1,109.0	1,111.3	1,122.1	1,128.3	1,134.1	1,135.7	1,115.5	1,115.8	1,129.0	1,121.2	1,111.3	1,102.2	1,076.4	1,128.6
Metal cans.....	59.5	58.3	57.6	57.9	61.0	65.3	65.4	65.7	65.2	62.9	61.6	59.7	60.6	62.5	
Cutlery, handtools, and general hardware.....	140.9	141.0	141.5	141.3	140.0	138.4	134.7	133.6	138.7	138.4	137.7	137.9	129.7	136.0	
Heating equipment and plumbing fixtures.....	77.2	76.0	77.0	77.8	79.0	78.6	78.8	76.7	77.0	76.3	76.2	76.1	75.2	79.0	
Fabricated structural metal products.....	314.7	317.0	322.3	325.8	330.9	335.1	333.7	334.4	332.3	326.9	321.4	317.6	325.8	334.3	
Screw machine products, bolts, etc.....	88.5	87.9	88.0	87.8	87.7	87.0	87.0	86.1	87.1	87.5	87.8	87.5	80.4	85.6	
Metal stampings.....	191.7	195.3	197.1	196.4	196.4	193.2	180.2	184.3	188.3	191.1	189.0	187.7	179.4	197.7	
Coating, engraving, and allied services.....	66.2	66.0	67.3	70.0	69.6	69.2	67.8	67.4	68.9	67.6	67.7	66.9	63.9	64.2	
Miscellaneous fabricated wire products.....	56.1	56.2	57.0	57.4	57.7	56.8	55.7	55.6	57.1	56.8	56.0	55.5	53.7	56.9	
Miscellaneous fabricated metal products.....	114.2	113.6	114.3	113.9	111.8	112.1	112.2	112.0	114.4	113.7	113.9	113.3	107.8	112.4	

See footnotes at end of table.

TABLE A-3. Production workers in nonagricultural establishments, by industry¹

[In thousands]

Industry	1963			1962									Annual average		
	Mar. ²	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1961	1960
Mining		476	479	491	501	507	512	517	508	520	517	508	502	527	567
Metal mining.....		65.5	64.2	63.6	64.4	64.7	65.4	68.5	72.7	73.9	73.1	71.7	70.7	71.6	76.9
Iron ores.....		20.5	19.2	20.0	20.8	21.6	22.1	23.8	24.4	25.1	25.0	23.7	23.0	22.8	28.6
Copper ores.....		22.8	22.9	23.0	22.8	22.6	22.7	23.5	23.7	24.0	23.8	23.9	23.8	23.7	22.6
Coal mining.....		122.7	123.6	123.4	125.0	126.6	125.0	124.7	113.7	125.0	127.1	128.6	131.6	136.7	161.2
Bituminous.....		115.3	116.2	115.8	117.3	118.9	117.6	117.3	105.6	117.4	119.1	120.8	123.6	127.5	148.9
Crude petroleum and natural gas.....		208.7	209.0	215.0	214.0	215.8	219.8	221.2	221.6	220.1	216.4	214.5	214.9	223.1	229.1
Crude petroleum and natural gas fields.....		102.7	102.5	102.5	103.0	103.2	105.2	107.2	107.0	107.2	105.0	104.0	104.2	108.4	113.8
Oil and gas field services.....		106.0	106.5	112.5	111.0	112.6	114.6	114.0	114.6	112.9	111.4	110.5	110.7	114.6	115.3
Quarrying and nonmetallic mining.....		79.5	82.6	89.1	97.2	99.6	101.3	102.8	100.2	100.8	99.9	92.8	84.9	95.4	99.6
Contract construction	1,841	1,947	2,128	2,397	2,529	2,570	2,621	2,573	2,431	2,344	2,186	1,927	2,344	2,458	
General building contractors.....	575.1	611.4	666.1	742.0	789.2	784.2	809.4	796.5	753.4	724.6	690.7	605.5	740.4	788.3	
Heavy construction.....	317.3	342.1	402.6	510.0	577.8	596.1	612.2	602.3	552.9	523.6	436.5	350.5	492.8	509.0	
Highway and street construction.....	154.3	170.4	213.6	295.2	346.6	361.8	372.4	361.2	327.8	303.7	237.5	173.0	271.2	270.6	
Other heavy construction.....	163.0	171.7	189.0	214.8	231.2	234.3	239.8	241.1	225.1	219.9	199.0	177.5	221.6	238.4	
Special trade contractors.....	949.0	993.0	1,059.1	1,145.2	1,181.6	1,189.6	1,199.5	1,173.9	1,125.0	1,095.5	1,058.7	971.4	1,110.8	1,160.7	
Manufacturing	12,226	12,177	12,187	12,358	12,518	12,661	12,751	12,544	12,403	12,516	12,372	12,338	12,240	12,044	12,562
Durable goods.....	6,876	6,852	6,862	6,929	6,994	7,027	7,034	6,862	6,925	6,975	6,931	6,857	6,857	6,613	7,021
Nondurable goods.....	5,350	5,325	5,325	5,429	5,524	5,634	5,717	5,682	5,478	5,491	5,397	5,407	5,383	5,431	5,541
Durable goods															
Ordnance and accessories.....	99.0	99.1	100.2	101.0	101.7	100.9	101.3	101.5	98.6	96.7	97.5	97.5	96.4	94.3	89.4
Ammunition, except for small arms.....		40.7	40.8	41.5	41.7	41.5	41.8	42.7	43.0	41.7	40.5	40.6	40.0	39.6	37.0
Sighting and fire control equipment.....		21.7	22.2	22.0	22.4	22.2	22.2	21.8	21.9	21.8	22.1	22.3	22.3	22.5	22.7
Other ordnance and accessories.....		36.7	37.2	37.5	37.6	37.2	37.3	37.0	33.7	33.2	34.9	34.6	34.1	32.2	29.7
Lumber and wood products, except furniture	511.1	513.3	518.0	529.9	546.9	558.4	567.2	576.0	568.4	571.4	546.0	527.4	509.3	534.8	570.3
Logging camps and logging contractors.....		74.8	77.3	82.7	89.2	92.3	96.3	99.5	98.3	96.4	84.8	77.0	71.2	85.2	87.1
Sawmills and planing mills.....		235.1	236.7	238.8	245.7	250.1	253.1	255.0	254.3	256.9	248.3	242.6	235.7	243.4	268.5
Millwork, plywood, and related products.....		118.4	119.3	121.9	124.7	127.0	128.6	130.4	126.7	127.3	123.9	120.3	115.9	119.4	124.1
Wooden containers.....		33.7	33.8	34.9	35.3	36.3	35.9	36.9	36.9	37.5	36.5	35.5	35.1	36.8	39.1
Miscellaneous wood products.....		51.3	50.9	51.6	52.0	52.7	53.3	53.0	52.2	53.3	52.5	52.0	51.4	49.9	51.4
Furniture and fixtures	312.4	313.3	315.2	318.9	322.5	323.7	323.0	322.7	313.3	316.9	314.1	312.7	311.0	303.9	318.9
Household furniture.....		231.1	230.8	233.7	236.1	237.3	235.9	233.8	226.9	229.4	229.3	229.9	228.2	221.6	232.3
Office furniture.....		22.8	24.1	24.6	24.7	22.6	22.4	24.4	23.2	23.9	23.3	22.8	22.9	21.8	22.8
Partitions, office and store fixtures.....		26.3	26.7	26.3	27.0	28.9	29.1	28.8	28.3	27.8	27.0	26.5	26.7	26.6	29.2
Other furniture and fixtures.....		33.1	33.6	34.3	34.7	34.9	35.6	35.7	34.9	35.8	34.5	33.5	33.2	34.0	34.5
Stone, clay, and glass products	437.6	429.1	432.2	446.5	465.1	474.2	478.9	480.9	476.4	476.1	466.6	454.5	434.8	455.1	483.2
Flat glass.....		23.7	23.9	24.9	25.6	25.3	25.0	24.8	24.4	24.5	23.8	24.2	24.3	23.7	27.0
Glass and glassware, pressed or blown.....		85.2	83.9	84.8	85.8	87.0	87.8	87.5	87.6	88.6	86.5	84.9	84.5	84.5	86.9
Cement, hydraulic.....		27.0	28.5	30.0	32.5	32.9	33.5	33.9	33.7	33.4	32.1	31.1	28.5	32.2	34.9
Structural clay products.....		54.6	55.6	58.4	60.4	61.0	62.3	62.8	62.0	61.4	60.8	59.3	56.5	60.4	65.9
Pottery and related products.....		36.4	36.6	36.8	37.8	38.6	38.0	37.5	37.1	37.2	36.9	37.3	36.5	36.9	40.3
Concrete, gypsum, and plaster products.....		103.8	105.2	111.7	121.3	126.9	129.4	131.4	129.6	129.0	125.4	117.2	104.6	118.1	123.5
Other stone and mineral products.....		86.5	86.2	87.5	89.0	89.7	90.5	90.8	90.3	90.1	89.4	88.7	87.9	87.4	91.8
Primary metal industries	925.4	915.4	900.5	900.3	894.2	897.5	910.9	906.3	903.4	935.5	964.5	991.3	991.4	914.5	992.0
Blast furnace and basic steel products.....		459.4	443.9	442.3	437.4	440.8	451.9	450.3	451.9	475.4	503.3	530.0	531.6	482.0	529.3
Iron and steel foundries.....		165.7	165.0	165.0	164.5	165.0	166.1	163.4	163.1	166.6	166.5	167.1	165.9	156.0	172.4
Nonferrous smelting and refining.....		51.0	51.7	52.7	53.0	53.5	53.8	53.0	51.8	52.9	53.0	53.0	52.9	51.7	54.9
Nonferrous rolling, drawing, and extruding.....		134.8	134.9	135.2	135.4	135.8	136.2	135.3	135.4	136.9	136.5	136.2	129.0	133.6	
Nonferrous foundries.....		56.8	56.9	57.1	56.0	55.9	55.9	56.1	53.4	54.7	56.4	55.6	55.8	50.4	53.7
Miscellaneous primary metal industries.....		47.7	48.1	48.0	47.9	46.5	47.0	48.2	47.8	49.0	48.8	49.1	49.0	45.4	48.2
Fabricated metal products	849.0	845.7	848.2	859.2	864.7	870.7	872.1	850.9	851.6	867.6	860.7	851.2	842.8	819.6	869.0
Metal cans.....		49.0	47.8	47.3	47.5	50.4	54.8	54.9	55.2	55.0	52.9	51.7	50.0	51.7	54.1
Cutlery, handtools, and general hardware.....		111.0	111.3	111.8	111.8	110.6	108.8	105.1	104.4	109.4	108.6	108.8	101.4	107.3	
Heating equipment and plumbing fixtures.....		57.5	56.3	57.2	58.1	58.9	58.6	58.5	56.8	56.9	56.3	56.0	55.9	55.2	58.7
Fabricated structural metal products.....		218.7	221.3	226.3	229.0	234.7	238.4	236.7	237.2	236.2	231.3	226.8	223.1	230.3	238.1
Screw machine products, bolts, etc.....		69.7	69.3	69.4	69.2	68.9	68.5	68.2	67.4	68.8	69.1	69.3	69.1	62.6	67.2
Metal stampings.....		155.3	158.2	160.1	159.4	159.3	156.3	143.4	147.5	152.3	154.8	152.6	151.6	143.7	160.7
Coating, engraving, and allied services.....		54.9	54.9	56.2	58.7	58.4	57.9	56.3	56.0	57.6	56.4	56.4	55.5	53.0	53.8
Miscellaneous fabricated wire products.....		44.4	44.6	45.4	46.0	46.3	45.3	44.2	43.9	45.3	45.1	44.6	44.0	42.2	45.5
Miscellaneous fabricated metal products.....		85.2	84.5	85.5	85.0	83.2	83.5	83.6	83.2	86.1	85.4	85.2	84.8	79.6	83.6

See footnotes at end of table.

TABLE A-3. Production workers in nonagricultural establishments, by industry ¹—Continued

[In thousands]

Industry	1963			1962										Annual average	
	Mar. ²	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1961	1960
Manufacturing—Continued															
<i>Durable goods—Continued</i>															
Machinery.....	1,030.8	1,024.2	1,020.9	1,017.5	1,016.7	1,018.1	1,020.7	1,015.3	1,019.6	1,034.5	1,026.5	1,024.9	1,013.8	964.5	1,030.4
Engines and turbines.....		59.1	59.5	58.0	57.5	57.7	57.5	57.8	56.8	58.2	58.6	58.6	57.4	51.2	56.1
Farm machinery and equipment.....		95.8	91.1	87.1	83.9	84.5	85.1	83.8	84.9	86.7	87.2	87.3	85.8	78.6	79.6
Construction and related machinery.....		138.8	138.6	138.7	138.3	137.6	140.8	141.3	140.3	141.7	139.5	138.2	135.8	128.2	144.5
Metalworking machinery and equipment.....		193.9	193.2	193.5	192.5	191.2	189.8	187.4	191.1	194.2	195.2	195.6	192.4	180.1	194.0
Special industry machinery.....		116.0	116.8	118.1	117.9	119.0	118.7	119.0	119.2	120.1	118.6	118.1	117.2	116.2	122.3
General industrial machinery.....		148.7	150.1	148.2	151.0	151.7	151.6	151.6	150.9	152.3	150.0	149.9	148.8	143.0	154.9
Office, computing and accounting machines.....		90.9	91.9	92.8	93.3	93.4	94.4	94.3	93.1	94.9	95.2	95.7	95.7	94.5	95.2
Service industry machines.....		65.1	64.2	64.5	64.8	65.3	66.0	65.3	68.7	70.1	69.1	68.3	67.2	63.8	69.7
Miscellaneous machinery.....		115.9	115.5	116.6	117.5	117.7	116.8	114.8	114.6	116.3	113.1	113.2	113.5	109.0	114.2
Electrical equipment and supplies.....	1,025.1	1,031.9	1,042.3	1,052.9	1,060.1	1,062.0	1,059.2	1,041.1	1,031.4	1,038.9	1,024.7	1,018.8	1,013.5	963.3	986.9
Electric distribution equipment.....		106.1	107.3	108.6	109.1	109.1	109.0	108.6	107.0	107.6	104.8	105.6	105.3	105.3	108.3
Electrical industrial apparatus.....		119.3	119.7	120.3	120.8	120.3	120.7	119.5	120.6	122.0	119.7	119.5	119.3	114.8	121.5
Household appliances.....		118.1	118.2	118.8	118.8	119.5	118.8	115.4	114.3	117.7	118.6	118.2	117.1	114.8	120.7
Electric lighting and wiring equipment.....		107.5	107.8	108.5	108.9	109.5	109.2	106.1	104.2	105.8	105.6	104.9	104.1	99.9	103.6
Radio and TV receiving sets.....		89.3	91.5	95.5	100.2	102.7	102.3	99.7	97.6	95.4	90.8	86.2	86.0	82.6	82.2
Communication equipment.....		225.0	227.4	228.1	227.7	226.7	225.3	222.4	217.8	219.5	219.0	218.5	218.2	200.4	201.4
Electronic components and accessories.....		176.9	179.8	182.0	183.4	183.8	184.5	183.4	183.1	183.3	179.6	178.2	178.0	165.5	164.4
Miscellaneous electrical equipment and supplies.....		89.7	90.6	91.1	91.2	90.4	89.4	86.0	86.8	87.6	86.6	87.7	85.5	79.9	84.9
Transportation equipment.....	1,158.9	1,157.7	1,168.3	1,167.8	1,159.6	1,149.8	1,133.3	1,007.7	1,120.6	1,136.6	1,132.8	1,117.7	1,117.9	1,035.0	1,132.7
Motor vehicles and equipment.....		584.5	592.8	595.8	589.3	581.0	566.3	441.2	561.3	580.0	573.1	567.0	551.1	491.7	566.5
Aircraft and parts.....		391.2	398.7	398.7	396.4	391.4	389.3	388.0	384.2	378.4	380.4	381.9	392.9	378.7	392.5
Ship and boat building and repairing.....		126.4	124.9	121.5	120.7	122.2	121.0	120.7	118.6	119.6	121.0	122.1	120.3	117.8	116.6
Railroad equipment.....		33.0	31.3	30.7	30.8	31.9	33.3	33.8	32.5	33.9	33.0	32.3	31.1	24.8	32.0
Other transportation equipment.....		22.6	20.6	21.1	22.4	23.3	23.4	24.0	24.0	24.7	25.3	24.4	22.5	21.9	25.1
Instrument and related products.....	230.2	228.7	229.2	229.9	230.5	230.5	229.9	229.4	225.8	228.5	226.8	226.3	226.7	221.6	232.0
Engineering and scientific instruments.....		38.5	39.3	39.5	39.4	39.3	39.1	38.6	37.7	38.4	38.2	38.2	38.5	40.4	42.8
Mechanical measuring and control devices.....		63.4	63.2	62.8	62.7	62.4	62.3	62.2	61.2	61.3	61.9	62.1	62.2	59.8	63.3
Optical and ophthalmic goods.....		30.3	30.0	30.1	30.2	30.5	30.2	30.4	30.3	31.1	30.8	31.0	30.8	29.1	30.7
Surgical, medical, and dental equipment.....		35.1	34.6	34.3	34.5	34.4	34.5	34.3	33.9	33.8	33.2	33.0	33.0	33.0	33.1
Photographic equipment and supplies.....		39.2	39.6	40.4	40.5	40.5	40.4	40.7	40.5	40.4	39.5	39.3	39.1	39.4	41.1
Watches and clocks.....		22.2	22.5	22.8	23.4	23.4	23.4	23.2	22.2	23.5	23.2	22.7	23.1	20.1	21.1
Miscellaneous manufacturing industries.....	296.8	293.4	287.1	305.2	332.4	341.6	337.8	330.6	316.1	322.4	314.7	308.2	299.2	306.2	316.0
Jewelry, silverware, and plated ware.....		31.9	31.7	32.5	33.4	33.3	33.0	32.3	30.8	32.0	31.9	31.9	32.2	32.7	33.9
Toys, amusement, and sporting goods.....		72.0	66.7	77.6	99.0	105.8	102.2	99.6	95.3	94.4	90.1	86.0	76.6	85.3	86.4
Pens, pencils, office and art materials.....		24.8	24.8	25.7	26.3	26.6	26.2	25.8	24.3	24.9	24.3	24.2	23.8	23.0	23.0
Costume jewelry, buttons, and notions.....		44.0	43.7	45.8	47.8	47.5	47.4	46.7	43.8	46.5	45.6	44.5	45.1	44.5	47.3
Other manufacturing industries.....		120.7	120.2	123.6	125.9	128.4	129.0	126.2	121.9	124.6	122.8	121.6	121.5	120.7	125.4
<i>Nondurable goods</i>															
Food and kindred products.....	1,081.4	1,076.8	1,098.9	1,146.6	1,187.6	1,265.6	1,329.7	1,303.5	1,223.8	1,175.8	1,121.0	1,110.9	1,086.0	1,190.8	1,211.3
Meat products.....		240.0	243.3	250.9	254.7	255.0	251.0	253.1	251.5	253.0	246.4	243.5	239.1	254.3	257.9
Dairy products.....		146.0	146.3	148.3	149.9	152.1	156.9	162.4	164.8	163.2	158.6	155.8	152.6	163.0	169.7
Canned and preserved food, except meats.....		143.6	150.6	165.2	190.4	260.6	338.1	318.2	246.4	197.8	166.5	166.0	149.7	206.2	206.1
Grain mill products.....		86.0	86.8	86.8	86.9	90.2	91.8	92.1	92.0	90.1	88.6	85.2	85.9	89.6	89.8
Bakery products.....		173.4	173.6	176.7	178.7	179.2	177.8	177.2	177.3	176.4	172.6	171.8	171.3	174.7	176.6
Sugar.....		22.3	28.9	38.4	39.8	38.9	26.1	24.1	23.4	22.8	21.5	22.4	20.0	28.4	30.3
Confectionery and related products.....		62.8	63.9	67.7	71.0	69.4	67.3	61.4	53.7	57.2	57.8	60.1	61.2	62.8	63.5
Beverages.....		107.2	110.0	114.2	115.7	118.9	122.4	119.3	121.4	120.9	114.7	110.5	110.6	115.6	118.3
Miscellaneous food and kindred products.....		95.5	95.5	98.4	100.5	101.3	98.3	95.7	93.3	94.4	94.3	95.6	95.6	96.2	99.0
Tobacco manufactures.....	68.8	73.4	76.5	81.9	84.1	98.7	105.1	90.4	65.2	64.7	64.5	65.9	69.3	79.4	83.3
Cigarettes.....		30.8	31.0	31.1	30.9	30.8	31.7	31.8	31.7	31.5	31.0	30.8	30.8	31.5	32.2
Cigars.....		20.5	20.5	21.2	21.3	20.9	21.1	20.9	20.3	21.3	21.5	21.7	21.9	23.1	26.0
Textile mill products.....	767.7	766.9	767.0	778.9	787.7	792.5	795.7	798.2	786.0	803.4	797.4	796.2	793.9	793.2	826.7
Cotton broad woven fabrics.....		222.0	223.0	224.8	225.4	225.5	226.5	227.8	226.0	229.7	228.8	229.9	231.2	234.7	244.1
Silk and synthetic broad woven fabrics.....		63.1	63.4	63.8	63.6	63.3	63.9	63.9	62.1	63.7	63.1	62.8	63.2	63.1	66.9
Weaving and finishing broad woolsens.....		44.2	42.8	43.0	43.8	44.9	45.7	46.3	47.2	46.3	47.2	46.3	45.7	46.2	49.5
Narrow fabrics and smallwares.....		23.2	23.4	24.0	24.2	23.9	24.1	23.9	23.3	24.1	24.2	24.3	24.2	23.2	24.1
Knitting.....		178.4	177.2	182.4	189.4	193.2	194.2	196.3	192.5	196.7	193.6	191.6	188.7	190.7	194.3
Finishing textiles, except wool and knit.....		60.4	60.3	61.2	61.2	61.3	61.1	61.0	60.5	62.1	61.6	62.0	61.8	60.9	64.1
Floor covering.....		28.2	28.6	29.2	29.2	28.8	28.4	27.4	27.4	27.4	27.9	28.2	28.4	27.8	30.4
Yarn and thread.....		93.2	93.1	94.6	94.8	95.4	95.5	96.2	93.9	96.2	95.9	95.7	95.3	93.0	95.9
Miscellaneous textile goods.....		54.2	55.2	55.9	56.1	56.2	56.3	55.4	54.0	55.9	55.8	55.4	55.4	53.7	57.5

See footnotes at end of table.

TABLE A-3. Production workers in nonagricultural establishments, by industry¹—Continued

[In thousands]

Industry	1963			1962									Annual average		
	Mar. ²	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1961	1960
Manufacturing—Continued															
<i>Nondurable goods—Continued</i>															
Apparel and related products.....	1,122.3	1,110.2	1,081.3	1,096.8	1,113.1	1,118.5	1,125.3	1,128.7	1,071.2	1,092.6	1,079.9	1,096.1	1,105.5	1,066.8	1,094.2
Men's and boys' suits and coats.....	105.8	106.1	106.3	106.3	105.8	106.4	107.6	107.5	103.1	106.7	103.6	103.7	104.6	104.3	108.9
Men's and boys' furnishings.....	300.3	297.2	300.5	303.7	304.4	305.7	305.8	294.2	300.6	294.7	290.4	288.0	273.7	279.6	
Women's, misses' and juniors' outerwear.....	318.7	301.9	304.4	307.5	305.7	313.5	320.9	300.2	306.7	305.0	319.9	327.0	313.7	325.8	
Women's and children's undergarments.....	107.2	106.0	109.3	111.5	112.0	110.2	109.2	103.0	106.2	105.2	106.5	107.6	104.8	106.2	
Hats, caps, and millinery.....	34.7	32.4	30.2	28.8	31.8	32.1	32.7	28.2	27.8	28.0	34.7	37.2	31.1	32.4	
Girls' and children's outerwear.....	71.1	68.0	67.2	68.7	69.1	69.1	69.1	70.5	69.9	70.5	67.1	66.1	70.2	66.4	
Fur goods and miscellaneous apparel.....	56.4	54.5	59.4	63.2	64.1	63.0	62.3	58.8	59.4	57.5	58.5	57.7	60.2	60.2	
Miscellaneous fabricated textile products.....	116.0	115.2	119.5	123.9	125.0	124.1	119.8	113.8	114.7	118.8	116.3	113.2	112.6	113.6	
Paper and allied products.....	473.0	471.7	474.4	479.5	480.8	483.9	485.3	484.0	476.3	482.7	475.4	475.1	470.9	469.5	474.0
Paper and pulp.....	180.0	181.3	182.5	183.1	183.9	184.9	186.6	183.0	183.9	181.2	181.1	181.2	181.2	181.4	181.9
Paperboard.....	54.5	54.8	54.9	54.8	54.9	54.4	53.4	52.8	55.2	54.6	54.6	53.0	54.0	56.4	
Converted paper and paperboard products.....	96.9	96.8	97.6	97.5	98.6	98.6	98.3	97.5	98.7	97.3	97.3	95.7	94.9	95.7	
Paperboard containers and boxes.....	140.3	141.5	144.5	145.4	146.5	147.4	145.7	143.0	144.9	142.3	142.1	141.0	139.1	140.1	
Printing, publishing, and allied industries.....	581.2	576.6	579.2	587.3	604.3	605.6	602.6	595.9	592.1	596.8	594.6	596.1	596.1	595.7	591.5
Newspaper publishing and printing.....	160.7	160.8	163.7	179.9	178.9	177.9	177.4	175.0	177.1	176.4	177.0	176.7	175.5	172.4	
Periodical publishing and printing.....	28.1	28.0	27.9	28.2	28.2	27.8	26.7	26.4	26.4	27.4	27.6	28.7	29.7	29.8	
Books.....	45.6	45.9	45.7	46.2	46.7	46.7	46.0	46.4	46.1	45.6	45.6	45.3	44.4	43.0	
Commercial printing.....	227.4	229.3	232.8	232.0	232.3	231.4	228.0	228.0	230.8	230.2	230.8	230.5	230.3	229.5	
Bookbinding and related industries.....	38.4	38.7	39.1	39.1	39.3	39.8	40.1	39.0	38.5	38.0	38.0	38.2	38.0	38.1	
Other publishing and printing industries.....	76.4	76.5	78.1	78.9	80.2	79.0	77.7	77.3	77.9	77.0	77.1	76.7	77.9	78.8	
Chemicals and allied products.....	524.0	516.8	515.4	515.4	518.6	520.3	522.7	522.9	521.0	520.4	524.6	527.1	517.8	506.1	510.8
Industrial chemicals.....	163.8	164.1	164.2	164.9	164.6	165.3	166.9	167.6	167.3	165.8	166.6	165.1	164.7	169.0	
Plastics and synthetics, except glass.....	110.0	110.7	110.4	111.0	110.8	111.9	110.8	110.7	107.0	108.9	109.2	108.1	102.6	103.5	
Drugs.....	59.8	60.3	60.1	60.1	59.4	59.2	60.0	59.6	59.6	58.7	58.9	58.8	58.2	58.8	
Soap, cleaners, and toilet goods.....	61.1	60.6	61.3	62.2	62.8	62.9	62.2	60.0	60.9	59.4	59.6	59.5	58.4	56.1	
Paints, varnishes, and allied products.....	35.1	34.7	34.7	35.2	35.8	36.6	37.3	37.6	37.3	36.3	35.5	35.1	35.5	36.7	
Agricultural chemicals.....	30.8	29.3	28.0	27.5	28.9	28.4	26.5	26.4	29.0	38.4	39.8	34.2	30.9	31.0	
Other chemical products.....	56.2	55.7	56.7	57.7	58.0	58.4	59.2	59.1	59.3	57.1	57.5	57.0	55.8	55.6	
Petroleum refining and related industries.....	117.2	116.5	117.2	118.7	120.4	121.3	122.5	128.4	129.7	129.9	128.7	128.4	126.9	130.6	137.7
Petroleum refining.....	95.0	94.9	95.4	95.8	95.9	96.8	102.6	104.2	104.5	104.1	105.1	104.7	107.1	113.1	
Other petroleum and coal products.....	21.5	22.3	23.3	24.6	25.4	25.7	25.8	25.5	25.4	24.6	23.3	22.2	23.5	24.6	
Rubber and miscellaneous plastic products.....	301.5	301.4	304.8	306.4	308.9	310.9	308.5	303.4	296.1	303.5	297.6	293.5	294.9	280.2	288.7
Tires and inner tubes.....	75.5	76.7	76.9	76.5	76.5	77.0	75.8	75.0	76.1	74.8	74.2	74.8	73.0	78.2	
Other rubber products.....	126.1	129.0	129.8	130.1	130.7	129.9	127.5	122.9	127.7	125.1	123.7	123.7	117.0	120.8	
Miscellaneous plastic products.....	99.8	99.1	99.7	102.3	103.7	101.6	100.1	98.2	99.7	97.7	95.6	96.4	90.2	89.7	
Leather and leather products.....	312.7	314.2	310.2	317.6	318.8	316.6	319.1	326.6	316.4	321.3	313.3	317.7	321.8	318.8	322.9
Leather tanning and finishing.....	28.3	28.9	29.3	29.1	29.0	28.8	28.8	27.7	28.7	28.1	28.1	28.5	28.9	29.9	
Footwear, except rubber.....	212.9	211.1	213.1	210.3	208.1	211.6	218.1	213.8	216.4	211.3	213.4	216.3	213.8	216.4	
Other leather products.....	73.0	70.2	75.2	79.4	79.5	78.7	79.7	74.9	76.2	73.9	76.2	77.0	76.2	76.5	
Transportation and public utilities:															
Local and interurban passenger transit:															
Local and suburban transportation.....	82.5	82.9	83.3	83.5	83.9	84.2	83.9	84.1	85.0	85.0	83.9	78.7	86.7	89.2	
Intercity and rural buslines.....	43.3	44.8	44.4	44.4	44.9	46.2	46.6	46.9	46.4	45.5	44.4	43.5	45.0	44.6	
Motor freight transportation and storage.....	804.0	801.5	843.1	857.8	867.1	862.7	848.7	840.8	840.5	814.8	809.5	801.6	800.0	801.8	
Pipeline transportation.....	17.0	17.4	17.6	17.7	17.9	18.2	18.5	18.6	18.5	18.2	18.2	18.1	18.8	19.3	
Communication:															
Telephone communication.....	553.2	554.0	556.8	558.2	559.1	563.5	569.3	568.7	563.3	560.2	559.5	557.8	568.7	581.9	
Telegraph communication.....	25.4	25.2	25.9	26.0	26.0	26.4	26.7	26.9	26.7	26.6	26.5	26.5	26.9	27.9	
Radio and television broadcasting.....	75.3	75.3	75.4	76.1	77.3	76.8	76.6	76.1	76.4	75.4	76.1	75.6	78.3	77.9	
Electric, gas, and sanitary services.....	524.4	525.9	528.5	530.1	531.7	538.7	548.8	544.8	539.3	529.3	527.4	526.8	538.7	543.6	
Electric companies and systems.....	211.5	211.7	212.2	212.6	213.2	216.1	218.5	218.0	215.7	211.8	211.6	211.6	216.8	220.2	
Gas companies and systems.....	132.7	133.1	133.9	134.5	134.5	136.0	137.9	137.9	136.6	134.1	133.6	133.5	136.4	137.3	
Combined utility systems.....	154.3	155.1	156.2	156.8	157.5	159.9	161.9	161.4	160.0	156.9	156.2	156.0	159.4	159.4	
Water, steam, and sanitary systems.....	25.9	26.0	26.2	26.2	26.5	26.7	27.5	27.5	27.0	26.5	26.0	25.7	26.1	26.7	

See footnotes at end of table.

TABLE A-3. Production workers in nonagricultural establishments, by industry¹—Continued

(In thousands)

Industry	1963			1962										Annual average	
	Mar. ²	Feb. ³	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1961	1960
Wholesale and retail trade⁴		8,712	8,822	9,657	9,100	8,939	8,868	8,791	8,775	8,817	8,757	8,785	8,591	8,744	8,810
Wholesale trade	2,632	2,643	2,639	2,676	2,677	2,668	2,671	2,657	2,642	2,603	2,593	2,593	2,597	2,610	
Motor vehicles and automotive equipment	191.4	189.9	191.3	190.7	191.4	191.6	191.5	191.5	189.6	186.6	186.0	184.9	182.0	181.5	
Drugs, chemicals, and allied products	164.2	163.8	166.1	166.2	165.4	164.5	165.0	163.7	162.8	161.8	161.2	160.2	158.7	155.6	
Dry goods and apparel	111.6	111.4	112.0	112.3	113.0	112.5	113.0	113.0	112.1	110.6	109.5	110.5	111.1	112.0	
Groceries and related products	429.7	433.8	445.6	445.5	440.5	435.8	434.8	442.1	442.4	433.0	434.4	434.7	435.7	439.1	
Electrical goods	189.7	189.5	189.4	188.8	188.1	187.4	188.9	188.7	187.2	183.9	184.1	183.3	179.5	183.6	
Hardware, plumbing and heating goods	123.9	123.5	124.6	124.9	125.3	125.7	126.2	125.9	125.6	123.4	122.6	122.2	124.0	127.7	
Machinery, equipment, and supplies	439.3	438.5	438.8	437.2	437.2	438.3	437.4	436.6	434.1	428.6	426.8	423.6	414.1	412.0	
Retail trade ⁴	6,080	6,179	6,968	6,424	6,262	6,200	6,120	6,118	6,175	6,154	6,186	5,998	6,147	6,201	
General merchandise stores	1,339.4	1,404.0	1,910.3	1,567.6	1,462.8	1,430.2	1,388.2	1,377.1	1,402.4	1,399.9	1,411.0	1,337.6	1,433.5	1,447.9	
Department stores	791.3	837.3	1,163.8	935.2	859.3	834.7	810.2	802.5	823.0	822.4	827.2	784.4	837.6	843.6	
Limited price variety stores	278.1	289.0	390.8	322.5	307.7	304.9	290.4	287.3	291.9	297.5	303.9	284.0	309.3	316.8	
Food stores	1,301.1	1,292.7	1,321.5	1,301.1	1,290.4	1,275.2	1,272.6	1,283.9	1,283.1	1,279.5	1,284.5	1,274.7	1,273.4	1,273.1	
Grocery, meat, and vegetable stores	1,135.5	1,133.2	1,152.4	1,139.9	1,131.8	1,119.1	1,118.5	1,127.6	1,126.0	1,119.7	1,118.6	1,116.6	1,109.7	1,106.5	
Apparel and accessories stores	571.6	599.3	737.7	632.7	611.9	601.0	569.5	569.5	601.9	607.3	645.6	565.0	586.9	582.3	
Men's and boy's apparel stores	99.2	107.1	135.3	106.3	100.5	98.6	96.2	98.0	103.1	98.9	101.2	93.0	97.9	95.6	
Women's ready-to-wear stores	221.9	230.0	281.0	245.2	236.6	229.9	218.4	219.4	229.1	234.2	241.4	218.4	225.0	223.3	
Family clothing stores	89.4	95.2	123.2	99.2	94.2	93.1	88.5	88.2	92.5	92.0	94.3	87.3	89.8	88.1	
Shoe stores	96.9	100.1	118.6	105.9	106.4	108.3	101.5	101.6	107.5	110.6	127.4	97.7	102.9	106.3	
Furniture and appliance stores	367.3	370.4	387.2	373.9	368.9	367.8	364.0	363.4	365.4	362.7	365.7	363.5	364.2	368.9	
Other retail trade ⁴	2,500.4	2,512.4	2,611.4	2,548.4	2,527.7	2,525.7	2,526.1	2,524.2	2,522.2	2,504.9	2,479.6	2,456.9	2,489.7	2,528.3	
Motor vehicle dealers	614.7	611.8	607.0	603.6	600.0	596.2	596.8	594.6	589.0	583.6	581.7	579.9	576.1	596.2	
Other vehicle and accessory dealers	111.1	113.5	122.9	118.8	114.1	114.3	115.4	116.2	116.3	112.9	110.6	106.0	117.7	123.1	
Drug stores	351.9	355.9	375.0	359.8	357.5	355.5	355.1	351.1	353.1	351.0	348.9	349.1	348.4	347.5	
Finance, insurance, and real estate:															
Banking	612.9	610.9	613.3	611.5	610.8	610.7	619.9	616.8	607.5	598.2	598.3	596.5	592.0	575.9	
Security dealers and exchanges	110.4	109.8	110.6	111.5	113.3	116.1	121.4	123.1	122.7	122.7	123.8	124.0	119.0	107.0	
Insurance carriers	783.8	781.0	783.2	782.8	781.6	783.8	789.7	786.3	779.6	774.9	776.7	777.4	777.0	763.9	
Life insurance	430.1	429.3	429.2	428.5	428.2	429.5	431.3	429.2	427.0	426.0	427.8	428.3	428.8	420.7	
Accident and health insurance	46.9	46.7	46.9	47.2	47.2	47.3	47.8	47.8	47.5	46.9	47.0	46.8	46.4	46.0	
Fire, marine, and casualty insurance	270.1	268.2	270.0	270.1	269.2	270.2	272.7	271.4	267.8	265.4	265.4	265.8	265.2	260.3	
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels	532.8	525.2	528.0	529.7	538.3	565.4	606.3	605.0	579.9	521.9	507.4	493.2	503.8	485.0	
Personal services:															
Laundries, cleaning and dyeing plants	355.4	360.0	361.0	364.6	368.0	369.4	369.9	378.1	380.3	376.1	369.8	361.1	377.9	389.2	
Motion pictures:															
Motion picture filming and distributing	22.3	23.4	24.7	23.9	24.1	24.1	24.2	23.9	23.6	23.4	24.6	25.5	28.1	29.0	

¹ For comparability of data with those published in issues prior to December 1961 and coverage of these series, see footnote 1, table A-2.

For mining, manufacturing, and laundries, cleaning and dyeing plants, data refer to production and related workers; for contract construction, to construction workers; and for all other industries, to nonsupervisory workers.

Production and related workers include working foremen and all nonsupervisory workers (including leadman and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial and watchmen services, product development, auxiliary production for plant's own use (e.g., power plant), and recordkeeping and other services closely associated with the above production operations.

Construction workers include working foremen, journeymen, mechanics apprentices, laborers, etc., engaged in new work, alterations, demolition, repair, and maintenance, etc., at the site of construction or working in shop or yards at jobs (such as precasting and preassembling) ordinarily performed by members of the construction trades.

Nonsupervisory workers include employees (not above the working supervisory level) such as office and clerical workers, repairmen, salespersons, operators, drivers, attendants, service employees, linemen, laborers, janitors, watchmen, and similar occupational levels, and other employees whose services are closely associated with those of the employees listed.

² Preliminary.

³ Data relate to nonsupervisory employees except messengers.

⁴ Excludes eating and drinking places.

The revised series on employment, hours and earnings, and labor turnover in non-agricultural establishments should not be compared with those published in issues prior to December 1961. (See footnote 1, table A-2, and "Technical Note, The 1961 Revision of the BLS Payroll Employment Statistics," *Monthly Labor Review*, January 1962, pp. 59-62.) Moreover, if future benchmark adjustments require further revisions, the figures presented in this issue should not be compared with those in later issues which reflect the adjustments.

Comparable data for earlier periods are published in *Employment and Earnings Statistics for the United States, 1909-60* (BLS Bulletin 1312), which is available at depository libraries or which may be purchased from the Superintendent of Documents for \$3. For an individual industry, earlier data may be obtained upon request to the Bureau.

TABLE A-6. Unemployment insurance and employment service program operations ¹

[All items except average benefit amounts are in thousands]

Item	1963		1962										
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.
Employment service:²													
New applications for work.....	904	1,097	766	907	948	856	879	914	1,102	899	847	860	821
Nonfarm placements.....	423	459	434	533	643	652	642	580	605	656	577	511	425
State unemployment insurance programs:													
Initial claims ^{3,4}	1,308	2,102	1,747	1,353	1,267	956	1,197	1,395	1,083	1,133	1,147	1,171	1,286
Insured unemployment ⁵ (average weekly volume).....	2,546	2,591	2,063	1,625	1,385	1,331	1,469	1,543	1,469	1,570	1,831	2,218	2,415
Rate of insured unemployment ⁶	6.2	6.3	5.1	4.0	3.4	3.3	3.6	3.8	3.6	3.9	4.5	5.5	6.0
Weeks of unemployment compensated.....	9,025	10,002	6,307	5,702	5,207	4,695	5,781	5,563	5,507	6,391	7,088	9,121	8,509
Average weekly benefit amount for total unemployment.....	\$35.70	\$35.52	\$35.11	\$34.95	\$34.69	\$34.42	\$34.29	\$34.01	\$34.20	\$34.04	\$34.52	\$34.98	\$34.73
Total benefits paid.....	\$313,272	\$342,411	\$214,203	\$193,551	\$176,608	\$160,559	\$197,414	\$186,965	\$188,871	\$215,015	\$239,562	\$310,246	\$287,245
Unemployment compensation for ex-servicemen:^{7,8}													
Initial claims ³	27	39	31	29	31	27	39	30	25	22	25	26	21
Insured unemployment ⁵ (average weekly volume).....	77	77	65	57	52	52	52	46	40	40	45	49	49
Weeks of unemployment compensated.....	306	338	235	222	214	200	211	175	165	177	190	209	196
Total benefits paid.....	\$10,027	\$11,100	\$7,679	\$7,298	\$7,019	\$6,549	\$6,934	\$5,659	\$5,420	\$5,703	\$6,036	\$6,545	\$6,121
Unemployment compensation for Federal civilian employees:^{8,9}													
Initial claims ³	12	20	12	12	14	10	12	15	10	11	11	11	12
Insured unemployment ⁵ (average weekly volume).....	38	37	31	29	27	25	26	26	24	26	29	34	36
Weeks of unemployment compensated.....	148	156	116	115	111	98	114	97	107	114	123	152	139
Total benefits paid.....	\$5,433	\$5,744	\$4,262	\$4,282	\$4,182	\$3,797	\$4,354	\$3,653	\$4,172	\$4,297	\$4,711	\$5,391	\$4,947
Railroad unemployment insurance:													
Applications ¹⁰	7	19	12	16	16	32	22	65	7	4	4	5	7
Insured unemployment (average weekly volume).....	64	73	61	61	60	65	50	52	44	52	64	74	80
Number of payments ¹¹	137	173	132	133	148	124	129	98	108	125	155	187	172
Average amount of benefit payment ¹²	\$80.58	\$79.97	\$79.56	\$78.73	\$74.47	\$83.26	\$78.53	\$75.84	\$71.91	\$73.03	\$76.76	\$79.55	\$80.05
Total benefits paid ¹³	\$10,881	\$13,732	\$10,358	\$10,373	\$11,081	\$10,134	\$10,081	\$7,256	\$7,825	\$9,052	\$11,807	\$14,791	\$13,696
All programs:¹⁴													
Insured unemployment ⁵	2,726	2,778	2,223	1,780	1,539	1,497	1,628	1,699	1,614	1,719	1,986	2,381	2,581

¹ Includes data for Puerto Rico, beginning January 1961 when the Commonwealth's program became part of the Federal-State UI system.

² Includes Guam and the Virgin Islands.

³ Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transitional claims.

⁴ Includes interstate claims for the Virgin Islands.

⁵ Number of workers reporting the completion of at least 1 week of unemployment.

⁶ The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.

⁷ Excludes data on claims and payments made jointly with other programs.

⁸ Includes the Virgin Islands.

⁹ Excludes data on claims and payments made jointly with State programs.

¹⁰ 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.

¹¹ Payments are for unemployment in 14-day registration periods.

¹² The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.

¹³ Adjusted for recovery of overpayments and settlement of underpayments.

¹⁴ Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs and the Railroad Unemployment Insurance Act.

SOURCE: U.S. Department of Labor, Bureau of Employment Security for all items except railroad unemployment insurance, which is prepared by the U.S. Railroad Retirement Board.

B.—Labor Turnover

TABLE B-1. Labor turnover rates, by major industry group¹

[Per 100 employees]

Major industry group	1963		1962										Annual average		
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
	Accessions: Total ³														
Manufacturing:															
Actual.....	3.2	3.6	2.4	3.0	3.9	4.9	5.1	4.5	5.0	4.3	4.0	3.7	3.5	4.1	3.8
Seasonally adjusted.....	3.8	3.9	3.5	3.6	4.0	3.8	4.0	4.1	3.9	4.3	4.4	4.3	4.1	-----	-----
Durable goods.....	3.2	3.5	2.3	2.8	3.6	4.5	4.6	3.8	4.5	4.1	4.0	3.8	3.6	3.9	3.5
Ordnance and accessories.....	1.9	2.4	1.6	1.9	2.4	2.5	2.6	3.0	3.9	2.9	2.8	3.0	3.1	2.8	2.6
Lumber and wood products, except furniture.....	4.1	4.7	2.5	3.2	4.5	5.4	5.4	6.3	8.8	7.5	7.3	5.2	4.7	5.3	4.8
Furniture and fixtures.....	3.9	4.1	2.5	3.3	4.3	5.0	6.0	5.2	4.7	5.1	4.6	4.5	4.4	4.1	3.9
Stone, clay, and glass products.....	3.4	3.5	1.9	2.4	2.8	3.3	4.0	3.8	4.8	4.6	5.4	4.3	3.8	3.6	3.4
Primary metal industries.....	3.3	3.4	2.3	2.5	2.7	2.7	3.3	2.8	2.8	2.5	2.2	2.6	2.7	3.4	2.4
Fabricated metal products.....	3.2	3.7	2.5	3.0	3.9	4.5	5.5	4.0	4.6	4.5	4.3	4.0	3.8	4.4	3.9
Machinery.....	2.6	3.0	2.1	2.3	2.8	2.9	3.2	2.9	3.7	3.1	3.1	3.2	3.2	3.0	2.9
Electrical equipment and supplies.....	2.8	3.0	2.1	2.7	3.4	3.8	4.0	3.5	4.4	3.8	3.6	3.6	3.4	3.6	3.2
Transportation equipment.....	3.3	3.7	2.8	3.5	4.5	8.0	6.1	4.2	4.4	4.3	4.5	4.4	3.9	4.7	4.3
Instruments and related products.....	2.5	2.6	1.7	2.4	2.6	2.6	3.4	2.8	3.9	2.7	2.6	2.6	2.5	2.6	2.4
Miscellaneous manufacturing industries.....	4.9	6.3	2.4	3.6	5.8	6.8	6.9	6.0	6.2	6.4	6.4	5.8	5.6	5.6	5.3
Nondurable goods.....	3.3	3.7	2.5	3.1	4.2	5.3	5.8	5.4	5.7	4.5	4.0	3.6	3.5	4.2	4.1
Food and kindred products.....	3.6	4.1	3.2	3.9	6.4	9.2	10.0	9.1	9.0	6.6	5.6	4.2	3.9	5.9	6.0
Tobacco manufactures.....	2.9	3.7	5.9	5.5	4.4	16.0	19.8	8.9	3.2	3.0	2.7	1.8	2.1	6.1	5.6
Textile mill products.....	3.3	3.3	1.9	2.7	3.5	3.8	4.2	3.9	4.2	4.1	3.7	3.6	3.4	3.5	3.2
Apparel and related products.....	5.2	5.8	3.1	4.4	5.3	5.2	6.2	6.7	6.6	6.1	5.1	5.1	5.6	5.6	5.3
Paper and allied products.....	2.1	2.2	1.6	1.9	2.4	2.8	3.0	2.9	4.1	2.8	2.8	2.5	2.3	2.6	2.6
Printing, publishing, and allied industries.....	2.5	2.9	2.0	2.5	3.2	3.7	3.4	3.2	4.1	2.9	2.7	2.8	2.5	2.9	3.0
Chemicals and allied products.....	1.8	2.0	1.3	1.4	1.8	2.1	2.0	2.0	3.3	2.2	2.4	2.6	2.1	2.1	2.0
Petroleum refining and related industries.....	.8	1.3	.6	.8	1.2	1.5	1.7	1.5	2.7	1.6	1.5	1.7	1.2	1.3	1.2
Rubber and miscellaneous plastic products.....	2.9	3.1	2.2	3.0	3.7	4.5	4.3	4.1	4.4	4.1	3.6	3.4	2.9	3.8	3.1
Leather and leather products.....	4.0	5.9	3.5	4.4	4.8	4.7	5.5	6.1	6.1	5.3	4.2	4.3	4.3	5.0	4.8
Nonmanufacturing:															
Metal mining.....	2.5	3.2	2.0	2.9	2.7	2.9	2.4	2.4	3.8	3.4	4.1	2.4	2.6	2.7	3.4
Coal mining.....	2.0	2.2	1.4	1.5	1.7	2.5	2.5	1.4	1.2	1.8	1.6	1.6	1.4	2.1	1.6
	Accessions: New hires														
Manufacturing:															
Actual.....	1.8	1.9	1.2	1.8	2.5	3.1	3.2	2.9	3.4	2.8	2.4	2.2	2.0	2.2	2.2
Seasonally adjusted.....	2.1	2.3	2.2	2.3	2.3	2.3	2.4	2.5	2.5	2.9	2.7	2.7	2.4	-----	-----
Durable goods.....	1.7	1.7	1.1	1.6	2.2	2.6	2.6	2.4	3.1	2.6	2.3	2.2	2.0	1.9	1.9
Ordnance and accessories.....	1.2	1.4	.9	1.2	1.5	1.8	1.8	2.2	2.9	2.0	2.0	1.9	2.1	1.9	1.8
Lumber and wood products, except furniture.....	2.6	2.7	1.7	2.5	3.6	4.4	4.6	4.7	6.2	5.4	4.7	3.3	2.9	3.3	3.4
Furniture and fixtures.....	2.6	2.7	1.5	2.5	3.4	4.3	4.8	4.2	3.9	4.1	3.3	3.4	3.0	2.7	2.8
Stone, clay, and glass products.....	1.5	1.3	.9	1.3	1.8	2.1	2.5	2.5	3.3	3.1	2.8	2.2	1.6	1.8	2.0
Primary metal industries.....	.8	.9	.6	.7	.9	1.0	1.0	.9	1.3	1.1	1.0	1.2	1.3	.9	.8
Fabricated metal products.....	1.8	1.9	1.3	1.8	2.6	3.0	2.9	2.5	3.2	2.9	2.4	2.2	2.0	2.1	2.1
Machinery.....	1.7	1.9	1.1	1.4	1.7	1.9	1.9	1.9	2.7	2.2	2.1	2.1	2.0	1.6	1.7
Electrical equipment and supplies.....	1.6	1.6	1.2	1.7	2.2	2.7	2.6	2.2	3.2	2.6	2.3	2.3	2.4	2.0	2.0
Transportation equipment.....	1.6	1.6	1.2	1.8	2.4	2.9	2.1	2.0	2.5	2.2	2.1	1.9	1.7	1.6	1.7
Instruments and related products.....	1.6	1.8	1.1	1.7	2.0	2.0	2.2	2.2	3.3	2.1	2.0	2.0	1.8	1.7	1.7
Miscellaneous manufacturing industries.....	2.4	2.6	1.5	2.4	4.3	5.3	5.2	4.2	4.7	4.3	3.7	3.3	3.3	3.6	3.4
Nondurable goods.....	1.9	2.1	1.3	1.9	2.8	3.7	3.9	3.5	3.9	2.9	2.5	2.3	2.1	2.5	2.5
Food and kindred products.....	1.9	2.1	1.7	2.2	4.1	6.0	6.5	5.8	6.0	3.9	2.9	2.2	1.9	3.4	3.5
Tobacco manufactures.....	1.2	2.0	3.3	2.3	3.1	10.5	7.8	2.5	1.6	1.3	.8	.9	1.4	3.2	2.9
Textile mill products.....	1.9	1.9	1.2	1.8	2.5	2.8	3.2	2.7	3.1	3.0	2.6	2.3	2.2	2.2	2.0
Apparel and related products.....	3.1	3.2	1.5	2.7	3.6	3.8	4.5	4.2	4.0	3.9	3.4	3.3	3.3	3.1	3.2
Paper and allied products.....	1.2	1.3	.9	1.2	1.8	2.2	2.2	2.1	3.2	2.0	1.9	1.6	1.4	1.7	1.8
Printing, publishing, and allied industries.....	1.8	2.1	1.3	1.9	2.5	3.0	2.7	2.6	3.3	2.3	2.1	2.1	1.9	2.1	2.4
Chemicals and allied products.....	1.1	1.2	.7	1.0	1.2	1.5	1.4	1.5	2.6	1.6	1.7	1.8	1.4	1.4	1.4
Petroleum refining and related industries.....	.5	.7	.4	.6	.9	1.1	1.3	1.2	2.2	1.2	.9	1.0	.7	.9	.8
Rubber and miscellaneous plastic products.....	1.6	1.6	1.1	1.7	2.5	3.3	3.0	2.3	3.1	2.6	2.1	2.0	1.8	1.9	1.7
Leather and leather products.....	2.5	3.3	2.1	2.8	3.1	3.2	3.9	3.7	4.1	3.2	2.5	2.7	2.7	2.9	2.9
Nonmanufacturing:															
Metal mining.....	1.5	1.6	1.1	1.2	1.4	1.4	1.3	1.3	2.8	2.0	1.8	1.3	1.0	1.2	1.9
Coal mining.....	1.0	.6	.4	.6	.8	.7	.7	.5	.4	.5	.4	.5	.5	.6	.4

See footnotes at end of table.

TABLE B-1. Labor turnover rates, by major industry group ¹—Continued

(Per 100 employees)

Major industry group	1963		1962										Annual average		
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
Separations: Total ³															
Manufacturing:															
Actual.....	3.2	3.9	3.8	4.0	4.3	5.0	5.2	4.4	3.8	3.8	3.6	3.6	3.4	4.0	4.3
Seasonally adjusted.....	3.7	3.9	3.9	3.9	3.8	4.1	4.8	4.6	4.9	4.1	3.7	3.8	3.9	-----	-----
Durable goods.....	3.1	3.7	3.4	3.6	3.9	4.3	5.4	4.4	3.8	3.6	3.3	3.5	3.2	3.9	4.3
Ordnance and accessories.....	3.4	3.2	2.1	2.7	2.7	3.4	2.9	2.2	2.7	2.5	2.5	2.1	2.6	2.3	2.4
Lumber and wood products, except furniture.....	4.9	5.0	5.5	6.2	5.6	6.7	6.8	5.7	4.7	4.7	5.0	6.1	4.8	5.5	6.1
Furniture and fixtures.....	3.6	4.5	3.6	4.2	4.6	5.2	5.7	5.2	4.6	4.7	4.2	4.9	3.9	4.3	4.6
Stone, clay, and glass products.....	3.3	4.9	5.1	4.0	4.1	4.9	4.5	3.5	3.3	3.7	3.3	3.4	3.3	3.8	4.1
Primary metal industries.....	2.1	2.6	2.5	2.9	3.5	3.8	3.6	4.1	4.4	4.5	3.2	2.3	2.0	2.8	4.0
Fabricated metal products.....	3.5	4.2	3.5	3.9	4.7	4.9	4.7	5.4	4.1	3.6	3.4	3.9	4.0	4.5	4.8
Machinery.....	2.2	2.8	2.1	2.6	2.9	3.5	3.8	3.0	3.0	2.9	2.6	2.8	2.3	3.2	3.4
Electrical equipment and supplies.....	3.3	3.6	2.8	3.1	3.4	4.0	3.9	3.3	3.2	3.1	2.9	3.4	3.1	3.2	3.5
Transportation equipment.....	3.3	3.7	3.0	3.4	3.8	4.1	10.6	6.5	3.9	3.6	3.5	3.8	3.9	5.0	5.2
Instruments and related products.....	2.8	2.6	2.1	2.8	3.0	3.3	3.1	2.4	2.6	2.3	2.1	2.6	2.1	2.6	2.7
Miscellaneous manufacturing industries.....	3.8	5.6	12.2	8.2	5.6	5.6	6.1	5.4	5.2	4.8	4.6	5.1	4.0	5.8	5.9
Nondurable goods.....	3.2	4.3	4.3	4.5	5.0	5.8	4.8	4.3	3.8	4.1	4.0	3.6	3.6	4.2	4.4
Food and kindred products.....	4.4	6.3	6.2	6.8	8.2	9.3	6.7	5.9	5.0	5.1	5.1	4.5	5.1	5.9	6.0
Tobacco manufactures.....	10.6	7.0	10.8	16.9	10.8	5.4	2.9	2.3	2.4	2.7	5.4	9.5	5.8	5.9	5.9
Textile mill products.....	3.1	3.9	3.4	3.7	3.8	4.5	4.5	3.9	3.4	3.6	3.6	3.6	3.3	3.4	3.7
Apparel and related products.....	4.0	5.4	5.9	5.1	5.7	5.9	5.8	6.3	5.2	6.2	6.0	4.9	5.0	5.7	6.1
Paper and allied products.....	2.3	2.8	2.5	2.7	2.8	4.2	3.4	2.5	2.4	2.6	2.5	2.3	2.1	2.7	2.9
Printing, publishing, and allied industries.....	2.3	2.9	2.7	2.9	3.1	4.1	3.5	2.5	3.0	2.9	2.5	2.6	2.3	2.9	2.8
Chemicals and allied products.....	1.3	1.7	1.6	2.0	1.8	3.1	2.4	1.9	2.3	2.5	2.0	1.8	1.6	2.0	2.1
Petroleum refining and related industries.....	1.4	1.8	2.1	2.2	1.8	2.7	2.5	1.5	1.6	1.6	1.5	1.5	1.6	1.6	1.6
Rubber and miscellaneous plastic products.....	2.8	3.5	2.8	3.5	3.9	4.5	4.1	4.0	3.2	3.2	3.2	3.4	3.3	3.5	3.9
Leather and leather products.....	3.6	5.2	5.4	4.5	5.4	5.9	5.9	5.3	4.2	5.2	5.7	4.7	4.3	5.0	5.0
Nonmanufacturing:															
Metal mining.....	2.4	3.5	5.6	3.8	3.6	6.0	4.9	3.2	3.2	2.6	2.5	2.3	1.9	3.1	3.8
Coal mining.....	1.7	2.1	1.8	3.2	2.6	2.0	2.3	5.2	3.4	4.5	2.1	1.8	2.1	2.5	3.6
Separations: Quits															
Manufacturing:															
Actual.....	1.0	1.1	0.8	1.1	1.5	2.4	2.1	1.4	1.5	1.5	1.3	1.2	1.1	1.2	1.3
Seasonally adjusted.....	1.4	1.4	1.2	1.3	1.4	1.4	1.5	1.3	1.5	1.6	1.3	1.5	1.5	-----	-----
Durable goods.....	.9	.9	.7	.9	1.2	2.0	1.8	1.2	1.3	1.3	1.2	1.1	.9	1.0	1.1
Ordnance and accessories.....	.8	.9	.6	.8	1.0	1.7	1.5	1.1	1.3	1.0	1.2	1.0	1.0	1.0	1.0
Lumber and wood products except furniture.....	1.4	1.7	1.3	1.9	2.6	4.2	3.7	2.6	2.5	2.6	2.6	1.8	1.4	1.9	2.3
Furniture and fixtures.....	1.5	1.7	1.1	1.6	2.1	3.0	3.1	2.2	2.1	2.5	2.2	2.0	1.7	1.5	1.7
Stone, clay, and glass products.....	.6	.8	.6	.8	1.2	2.0	1.9	1.2	1.2	1.3	1.1	1.0	.8	1.0	1.1
Primary metal industries.....	.4	.4	.3	.4	.5	.9	.9	.6	.6	.6	.6	.6	.5	.5	.6
Fabricated metal products.....	.9	.9	.6	.9	1.3	2.2	1.9	1.2	1.4	1.4	1.2	1.1	.9	1.0	1.1
Machinery.....	.8	.8	.6	.8	.9	1.5	1.4	.9	1.1	1.1	1.0	1.0	.8	.8	.9
Electrical equipment and supplies.....	1.1	1.0	.8	1.1	1.3	2.2	1.9	1.3	1.5	1.4	1.2	1.3	1.1	1.1	1.2
Transportation equipment.....	.6	.7	.5	.7	1.0	1.6	1.4	.9	1.0	1.0	1.0	.8	.7	.8	.9
Instruments and related products.....	.9	1.1	.8	1.1	1.4	1.9	1.6	1.2	1.3	1.2	1.1	1.2	.9	1.0	1.1
Miscellaneous manufacturing industries.....	1.3	1.3	1.0	1.6	2.2	3.0	3.0	1.9	2.2	1.9	1.8	1.7	1.5	1.8	1.9
Nondurable goods.....	1.2	1.3	1.0	1.3	1.8	2.9	2.5	1.7	1.7	1.7	1.5	1.4	1.2	1.4	1.6
Food and kindred products.....	1.2	1.3	1.1	1.3	2.1	4.0	2.9	1.9	1.8	1.8	1.4	1.3	1.2	1.6	1.7
Tobacco manufactures.....	.7	.9	.6	.8	.9	2.1	1.4	.8	.6	.6	.8	.6	.6	.9	1.0
Textile mill products.....	1.4	1.6	1.1	1.6	2.0	2.6	2.8	2.1	2.0	2.1	2.0	1.8	1.6	1.6	1.6
Apparel and related products.....	1.8	2.0	1.4	1.9	2.4	3.1	3.2	2.6	2.4	2.5	2.2	2.1	1.9	2.0	2.3
Paper and allied products.....	.7	.8	.6	.8	1.1	2.5	1.8	1.0	1.1	1.1	1.0	.9	.7	1.0	1.2
Printing, publishing, and allied industries.....	1.1	1.2	.9	1.3	1.5	2.5	2.1	1.4	1.7	1.5	1.3	1.3	1.2	1.4	1.5
Chemicals and allied products.....	.5	.6	.5	.5	.7	1.8	1.2	.6	.8	.8	.8	.7	.6	.7	.8
Petroleum refining and related industries.....	.4	.4	.4	.6	.7	1.4	1.2	.6	.7	.6	.5	.5	.4	.5	.5
Rubber and miscellaneous plastic products.....	.9	1.0	.8	1.0	1.5	2.2	1.9	1.3	1.5	1.5	1.3	1.3	1.1	1.1	1.1
Leather and leather products.....	1.5	2.0	1.5	1.9	2.5	3.1	3.3	2.4	2.4	2.4	2.3	2.2	1.9	2.1	2.2
Nonmanufacturing:															
Metal mining.....	1.2	1.2	.8	.9	1.1	2.2	1.8	1.3	1.1	1.2	1.4	.9	.9	1.0	1.5
Coal mining.....	.3	.3	.3	.3	.4	.5	.6	.4	.3	.3	.3	.3	.3	.4	.3

See footnotes at end of table.

TABLE B-1. Labor turnover rates, by major industry group¹—Continued

[Per 100 employees]

Major industry group	1963		1962											Annual average	
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
	Separations: Layoffs														
Manufacturing:															
Actual.....	1.6	2.2	2.5	2.3	2.2	1.9	2.3	2.2	1.6	1.6	1.6	1.6	1.7	2.2	2.4
Seasonally adjusted.....	1.8	2.0	2.0	1.9	1.8	2.0	2.6	2.4	2.0	1.8	1.6	1.6	1.9	2.2	2.4
Durable goods.....	1.6	2.0	2.2	2.0	1.8	1.6	2.8	2.4	1.7	1.6	1.4	1.6	1.6	2.2	2.6
Ordnance and accessories.....	2.0	1.7	1.1	1.3	1.1	1.1	1.0	.5	.7	1.0	.8	.6	1.0	.7	.9
Lumber and wood products, except furniture.....	2.9	2.6	3.6	3.5	2.1	1.6	2.2	2.2	1.3	1.3	1.7	3.6	2.7	2.8	3.1
Furniture and fixtures.....	1.5	2.1	1.9	2.0	1.6	1.4	1.7	2.2	1.8	1.3	1.3	2.2	1.6	2.1	2.1
Stone, clay, and glass products.....	2.1	3.4	4.0	2.7	2.2	2.1	1.9	1.7	1.4	1.7	1.5	1.8	1.9	2.2	2.4
Primary metal industries.....	1.1	1.4	1.7	2.0	2.4	2.3	2.1	2.8	3.1	3.2	1.9	1.0	.8	1.7	3.0
Fabricated metal products.....	2.0	2.5	2.3	2.4	2.7	2.0	2.0	3.4	1.9	1.5	1.6	2.0	2.3	2.9	3.1
Machinery.....	.9	1.3	.9	1.2	1.3	1.3	1.5	1.4	1.3	1.1	.9	1.0	.8	1.7	1.9
Electrical equipment and supplies.....	1.6	1.8	1.4	1.3	1.3	1.0	1.2	1.3	.9	.9	.9	1.3	1.1	1.4	1.6
Transportation equipment.....	1.8	2.1	1.8	1.9	1.9	1.8	8.3	4.4	2.0	1.7	1.7	2.0	2.3	3.5	3.6
Instruments and related products.....	1.2	.9	.8	1.1	.9	.7	.8	.7	.7	.5	.5	.7	.7	.9	1.0
Miscellaneous manufacturing industries.....	1.9	3.6	10.6	5.8	2.4	1.7	2.0	2.4	2.0	2.0	2.0	2.4	1.7	3.2	3.2
Nondurable goods.....	1.6	2.4	2.8	2.7	2.6	2.2	1.6	1.9	1.4	1.7	1.9	1.6	1.8	2.2	2.2
Food and kindred products.....	2.7	4.4	4.7	5.0	5.4	4.5	3.1	3.2	2.4	2.7	3.1	2.6	3.2	3.7	3.6
Tobacco manufactures.....	9.4	5.6	9.8	15.7	9.3	2.5	1.0	1.1	1.3	1.6	4.5	8.3	4.7	4.6	4.5
Textile mill products.....	1.2	1.6	1.9	1.6	1.2	1.2	1.0	1.2	.8	.9	1.0	1.2	1.2	1.3	1.5
Apparel and related products.....	1.6	2.6	4.0	2.6	2.5	2.2	1.7	2.9	2.1	2.9	3.2	2.1	2.4	3.1	3.2
Paper and allied products.....	1.2	1.5	1.3	1.3	1.2	1.2	.9	.9	.7	.8	.8	.8	.9	1.1	1.2
Printing, publishing and allied industries.....	.7	1.2	1.3	1.2	1.1	1.1	.9	.7	.8	.9	.8	.9	.7	1.0	.9
Chemicals and allied products.....	.5	.7	.8	1.1	.8	.8	.7	.8	1.0	1.2	.7	.6	.7	.9	.9
Petroleum refining and related industries.....	.7	.8	.9	1.0	.6	.7	.6	.5	.3	.5	.5	.7	.8	.6	.6
Rubber and miscellaneous plastic products.....	1.3	1.8	1.6	1.9	1.6	1.5	1.4	1.9	1.0	.9	1.2	1.4	1.5	1.7	2.2
Leather and leather products.....	1.5	2.5	3.4	2.0	2.3	2.0	1.6	1.9	1.1	2.1	2.6	1.7	1.7	2.3	2.1
Nonmanufacturing:															
Metal mining.....	.7	1.4	4.2	2.3	1.8	3.0	2.4	1.2	1.4	.7	.4	.6	.3	1.4	1.5
Coal mining.....	.9	1.4	1.1	2.2	1.7	1.0	1.4	4.2	2.6	3.7	1.0	.9	1.4	1.7	2.9

¹ Beginning with the December 1961 issue, figures differ from those previously published. The industry structure has been converted to the 1957 Standard Industrial Classification, and the printing and publishing industry and some seasonal manufacturing industries previously excluded are now included.

Data include Alaska and Hawaii beginning in January 1959; this inclusion has not significantly affected the labor turnover rates.

Month-to-month changes in total employment in manufacturing and non-manufacturing 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 mid-month to midmonth; and (2) the turnover series excludes personnel changes caused by strikes, but the employment series reflects the influence of such stoppages.

² Preliminary.

³ Beginning with January 1959, transfers between establishments of the same firm are included in total accessions and total separations; therefore, rates for these items are not strictly comparable with prior data. Transfers comprise part of "other accessions" and "other separations," the rates for which are not shown separately.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Industry	1963		1962											Annual average	
	Feb. 2	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
Average weekly earnings															
Manufacturing—Continued															
<i>Durable goods—Continued</i>															
Ordnance and accessories.....	\$120.64	\$120.64	\$120.96	\$118.69	\$117.01	\$117.01	\$115.34	\$115.18	\$116.88	\$117.16	\$118.43	\$117.31	\$116.47	\$113.42	\$108.67
Ammunition except for small arms.....	119.02	119.02	120.06	118.37	116.69	117.38	116.00	114.97	116.00	116.72	117.26	116.28	116.16	115.49	110.29
Sighting and fire control equipment.....	128.83	128.35	131.24	128.87	125.58	125.40	122.78	122.36	126.48	126.60	129.60	129.33	124.09	117.27	113.16
Other ordnance and accessories.....	117.59	117.74	116.06	113.44	111.79	112.06	110.70	110.70	112.19	111.65	112.88	111.37	111.76	108.39	103.17
Lumber and wood products, except furniture.....	76.83	76.83	78.01	79.00	79.60	82.01	81.80	80.40	80.40	79.59	77.82	75.08	76.24	77.03	73.71
Sawmills and planing mills.....	70.43	70.77	71.02	72.31	72.98	75.30	74.48	73.75	73.60	73.12	70.59	68.92	69.06	68.99	67.20
Millwork, plywood, and related products.....	86.48	86.48	87.53	86.90	86.48	88.81	88.82	87.12	87.56	88.81	87.13	85.88	84.02	84.03	81.19
Wooden containers.....	65.40	64.02	64.12	65.76	67.06	68.21	68.30	68.71	67.89	67.73	66.90	65.44	64.94	63.12	62.17
Miscellaneous wood products.....	72.50	73.08	72.80	73.71	73.44	74.62	73.49	72.00	73.49	72.85	72.62	71.91	70.40	69.77	69.32
Furniture and fixtures.....	78.79	78.60	81.58	80.16	81.34	81.54	80.54	78.18	79.95	78.38	78.76	78.76	77.59	76.21	75.20
Household furniture.....	75.14	74.19	78.02	76.63	77.38	77.15	75.99	73.38	74.85	73.75	74.30	74.30	73.16	71.46	70.45
Office furniture.....	91.88	94.07	95.40	91.77	91.39	92.57	92.34	92.52	93.61	92.80	92.57	92.84	91.98	90.54	90.42
Partitions, office and store fixtures.....	99.43	101.85	99.04	100.65	107.01	107.87	108.38	105.16	106.01	104.17	100.85	101.75	101.34	100.53	96.72
Other furniture and fixtures.....	81.39	80.99	82.21	81.20	81.61	82.41	81.79	80.39	83.43	81.20	81.00	80.39	80.39	80.20	78.78
Average weekly hours															
Ordnance and accessories.....	41.6	41.6	42.0	41.5	41.2	41.2	40.9	40.7	41.3	41.4	41.7	41.6	41.3	40.8	40.7
Ammunition except for small arms.....	40.9	40.9	41.4	41.1	40.8	40.9	40.7	40.2	40.7	41.1	41.0	40.8	40.9	41.1	41.0
Sighting and fire control equipment.....	42.8	42.5	43.6	43.1	42.0	41.8	41.2	41.2	42.3	42.2	43.2	43.4	41.5	40.3	41.0
Other ordnance and accessories.....	41.7	41.9	41.6	41.1	41.1	41.2	41.0	41.0	41.4	41.2	41.5	41.4	41.7	40.9	40.3
Lumber and wood products except furniture.....	39.2	39.2	39.2	39.5	40.0	40.8	40.9	40.4	40.4	40.4	39.5	38.9	39.3	39.5	39.0
Sawmills and planing mills.....	38.7	39.1	38.6	39.3	40.1	40.7	40.7	40.3	40.0	40.4	39.0	38.5	38.8	39.2	39.3
Millwork, plywood, and related products.....	40.6	40.6	40.9	40.8	40.6	41.5	41.7	40.9	41.3	41.5	41.1	40.7	40.2	40.4	39.8
Wooden containers.....	39.4	38.8	39.1	40.1	40.4	40.6	40.9	40.9	40.9	40.8	40.3	39.9	39.6	39.7	39.6
Miscellaneous wood products.....	40.5	40.6	40.0	40.5	40.8	41.0	40.6	40.0	40.6	40.7	40.8	40.4	40.0	40.1	40.3
Furniture and fixtures.....	40.2	40.1	41.2	40.9	41.5	41.6	41.3	40.3	41.0	40.4	40.6	40.6	40.2	39.9	40.0
Household furniture.....	40.4	40.1	41.5	41.2	41.6	41.7	41.3	40.1	40.9	40.3	40.6	40.6	40.2	39.7	39.8
Office furniture.....	40.3	40.9	41.3	39.9	40.8	40.6	40.5	40.4	40.7	40.7	40.6	40.9	40.7	40.6	41.1
Partitions, office and store fixtures.....	39.3	40.1	39.3	40.1	41.8	42.3	42.5	41.4	41.9	41.5	40.5	40.7	40.7	40.7	40.3
Other furniture and fixtures.....	39.7	39.7	40.3	40.2	40.4	41.0	41.1	40.6	41.3	40.2	40.1	39.6	39.6	40.3	40.4
Average hourly earnings															
Ordnance and accessories.....	\$2.90	\$2.90	\$2.88	\$2.86	\$2.84	\$2.84	\$2.82	\$2.83	\$2.83	\$2.83	\$2.84	\$2.82	\$2.82	\$2.78	\$2.67
Ammunition except for small arms.....	2.91	2.91	2.90	2.88	2.86	2.87	2.85	2.86	2.85	2.84	2.86	2.85	2.84	2.81	2.69
Sighting and fire control equipment.....	3.01	3.02	3.01	2.99	2.99	3.00	2.98	2.97	2.99	3.00	3.00	2.98	2.99	2.91	2.76
Other ordnance and accessories.....	2.82	2.81	2.79	2.76	2.72	2.72	2.70	2.70	2.71	2.71	2.72	2.69	2.68	2.65	2.56
Lumber and wood products except furniture.....	1.96	1.96	1.99	2.00	1.99	2.01	2.00	1.99	1.99	1.97	1.97	1.93	1.94	1.95	1.89
Sawmills and planing mills.....	1.82	1.81	1.84	1.84	1.82	1.85	1.83	1.82	1.84	1.81	1.81	1.79	1.78	1.76	1.71
Millwork, plywood, and related products.....	2.13	2.13	2.14	2.13	2.13	2.14	2.13	2.13	2.12	2.14	2.12	2.11	2.09	2.08	2.04
Wooden containers.....	1.66	1.65	1.64	1.64	1.66	1.68	1.67	1.68	1.66	1.66	1.66	1.64	1.64	1.59	1.57
Miscellaneous wood products.....	1.79	1.80	1.82	1.82	1.80	1.82	1.81	1.80	1.81	1.79	1.78	1.78	1.76	1.74	1.72
Furniture and fixtures.....	1.96	1.96	1.98	1.96	1.96	1.96	1.95	1.94	1.95	1.94	1.94	1.94	1.93	1.91	1.88
Household furniture.....	1.86	1.85	1.88	1.86	1.86	1.85	1.84	1.83	1.83	1.83	1.83	1.83	1.82	1.80	1.77
Office furniture.....	2.28	2.30	2.31	2.30	2.24	2.28	2.28	2.29	2.30	2.28	2.28	2.27	2.26	2.23	2.20
Partitions, office and store fixtures.....	2.53	2.54	2.52	2.51	2.56	2.55	2.55	2.54	2.53	2.51	2.49	2.50	2.49	2.47	2.40
Other furniture and fixtures.....	2.05	2.04	2.04	2.02	2.02	2.01	1.99	1.98	2.02	2.02	2.02	2.03	2.03	1.99	1.95

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Industry	1963		1962										Annual average		
	Feb.*	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
Average weekly earnings															
Manufacturing—Continued															
<i>Durable goods—Continued</i>															
Stone, clay, and glass products.....	\$97.36	\$97.11	\$97.84	\$100.28	\$100.85	\$101.50	\$101.57	\$100.67	\$100.43	\$99.60	\$98.16	\$95.68	\$94.33	\$95.24	\$92.97
Flat glass.....	130.37	129.26	130.42	133.06	127.59	126.94	125.78	126.81	127.92	125.02	120.01	123.00	122.06	122.68	127.35
Glass and glassware, pressed or blown.....	100.65	100.15	99.14	99.14	98.49	97.76	98.09	98.00	100.37	99.06	98.98	97.93	97.53	95.44	91.94
Cement, hydraulic.....	111.63	112.16	111.50	115.21	114.26	116.62	115.93	117.60	114.12	113.85	110.02	107.46	105.60	106.52	102.87
Structural clay products.....	84.77	85.41	85.81	86.90	87.56	87.34	87.97	87.54	88.17	88.60	87.54	85.65	84.59	84.45	82.21
Pottery and related products.....	88.92	88.08	89.67	90.45	90.68	89.82	87.64	87.69	86.85	85.58	85.80	84.85	85.46	82.30	81.37
Concrete, gypsum, and plaster products.....	93.77	94.40	95.60	102.96	105.36	108.14	108.66	105.67	104.28	103.60	99.64	93.61	89.72	97.10	93.04
Other stone and mineral products...	99.14	98.15	99.14	99.88	99.55	99.80	100.12	100.60	99.87	99.29	99.05	97.20	97.44	96.05	93.79
Primary metal industries.....	121.91	120.80	120.39	117.91	116.92	118.80	116.23	116.62	119.10	118.50	123.11	123.41	122.81	114.95	109.59
Blast furnace and basic steel products.....	129.89	128.44	126.68	123.39	122.42	125.00	122.68	121.77	123.71	124.68	132.84	133.90	133.90	122.92	116.13
Iron and steel foundries.....	110.83	108.54	109.88	107.73	106.52	107.45	103.34	106.90	109.41	106.90	106.37	105.85	104.40	98.81	96.61
Nonferrous smelting and refining.....	115.49	116.20	117.04	116.47	114.52	116.47	116.03	114.80	116.05	113.85	113.02	112.48	112.48	109.48	108.09
Nonferrous rolling, drawing, and extruding.....	115.64	116.47	118.00	116.62	115.09	116.05	113.98	115.35	118.80	115.90	117.85	116.18	114.11	111.76	105.01
Nonferrous foundries.....	105.22	105.88	105.73	103.79	103.94	103.12	101.30	101.25	104.42	103.73	104.33	103.82	104.08	100.35	97.51
Miscellaneous primary metal industries.....	127.41	130.09	128.94	125.14	123.60	126.12	123.49	121.88	124.38	123.19	123.79	125.82	123.60	116.98	112.92
Average weekly hours															
Stone, clay, and glass products.....	39.9	39.8	40.1	41.1	41.5	41.6	41.8	41.6	41.5	41.5	40.9	40.2	39.8	40.7	40.6
Flat glass.....	38.8	38.7	38.7	39.6	38.9	38.7	38.7	38.9	39.0	38.0	36.7	37.5	37.1	38.7	40.3
Glass and glassware, pressed or blown.....	40.1	39.9	40.3	40.3	40.2	39.9	40.2	40.0	40.8	40.6	40.4	40.3	40.3	40.1	39.8
Cement, hydraulic.....	40.3	40.2	40.4	41.0	41.1	41.5	41.7	42.0	41.2	41.4	40.9	40.4	39.7	40.5	40.5
Structural clay products.....	39.8	40.1	40.1	40.8	41.3	41.2	41.3	41.1	41.2	41.4	41.1	40.4	39.9	40.6	40.3
Pottery and related products.....	39.0	38.8	39.5	40.2	40.3	40.1	39.3	38.8	38.6	38.9	39.0	39.1	39.2	38.1	38.2
Concrete, gypsum, and plaster products.....	39.9	40.0	40.0	42.9	43.9	44.5	44.9	44.4	44.0	43.9	42.4	40.7	39.7	42.4	42.1
Other stone and mineral products...	40.3	39.9	40.3	40.6	40.8	40.9	41.2	41.4	41.1	41.2	41.1	40.5	40.6	40.7	40.6
Primary metal industries.....	40.5	40.4	40.4	39.7	39.5	40.0	39.4	39.4	40.1	39.9	40.9	41.0	40.8	39.5	39.0
Blast furnace and basic steel products.....	39.6	39.4	39.1	38.2	37.9	38.7	38.1	37.7	38.3	38.6	40.5	40.7	40.7	38.9	38.2
Iron and steel foundries.....	41.2	40.5	41.0	40.5	40.5	40.7	39.9	40.8	41.6	40.8	40.6	40.4	40.0	38.9	38.8
Nonferrous smelting and refining.....	41.1	41.5	41.8	41.3	40.9	41.3	41.0	41.0	41.3	41.1	40.8	40.9	40.9	40.7	41.1
Nonferrous rolling, drawing, and extruding.....	41.9	42.2	42.6	42.1	41.7	42.2	41.6	42.1	43.2	42.3	42.7	42.4	41.8	41.7	40.7
Nonferrous foundries.....	41.1	41.2	41.3	40.7	40.6	40.6	40.2	40.5	41.6	41.0	41.4	41.2	41.3	40.3	39.8
Miscellaneous primary metal industries.....	41.5	42.1	42.0	41.3	41.2	41.9	41.3	40.9	41.6	41.2	41.4	41.8	41.2	40.2	39.9
Average hourly earnings															
Stone, clay, and glass products.....	\$2.44	\$2.44	\$2.44	\$2.44	\$2.43	\$2.44	\$2.43	\$2.42	\$2.42	\$2.40	\$2.40	\$2.38	\$2.37	\$2.34	\$2.29
Flat glass.....	3.36	3.34	3.37	3.36	3.28	3.28	3.25	3.26	3.28	3.29	3.27	3.28	3.29	3.17	3.16
Glass and glassware, pressed or blown.....	2.51	2.51	2.46	2.46	2.45	2.45	2.44	2.45	2.46	2.44	2.45	2.43	2.42	2.38	2.31
Cement, hydraulic.....	2.77	2.79	2.76	2.81	2.78	2.81	2.78	2.80	2.77	2.75	2.69	2.66	2.66	2.63	2.54
Structural clay products.....	2.13	2.13	2.14	2.13	2.12	2.12	2.13	2.13	2.14	2.14	2.13	2.12	2.12	2.08	2.04
Pottery and related products.....	2.28	2.27	2.27	2.25	2.25	2.24	2.23	2.26	2.25	2.20	2.20	2.17	2.18	2.16	2.13
Concrete, gypsum, and plaster products.....	2.35	2.36	2.39	2.40	2.40	2.43	2.42	2.38	2.37	2.36	2.35	2.30	2.26	2.29	2.21
Other stone and mineral products...	2.46	2.46	2.46	2.46	2.44	2.44	2.43	2.43	2.43	2.41	2.41	2.40	2.40	2.36	2.31
Primary metal industries.....	3.01	2.99	2.98	2.97	2.96	2.97	2.95	2.96	2.97	2.97	3.01	3.01	3.01	2.91	2.81
Blast furnace and basic steel products.....	3.28	3.26	3.24	2.23	3.23	3.23	3.22	3.23	3.23	3.23	3.28	3.29	3.29	3.16	3.04
Iron and steel foundries.....	2.69	2.68	2.68	2.66	2.63	2.64	2.59	2.62	2.63	2.62	2.62	2.62	2.61	2.54	2.49
Nonferrous smelting and refining.....	2.81	2.80	2.80	2.82	2.80	2.82	2.83	2.80	2.81	2.77	2.77	2.75	2.75	2.69	2.63
Nonferrous rolling, drawing, and extruding.....	2.76	2.76	2.77	2.77	2.76	2.75	2.74	2.74	2.75	2.74	2.76	2.74	2.73	2.68	2.58
Nonferrous foundries.....	2.56	2.57	2.56	2.55	2.56	2.54	2.52	2.50	2.51	2.53	2.52	2.52	2.52	2.49	2.45
Miscellaneous primary metal industries.....	3.07	3.09	3.07	3.03	3.00	3.01	2.99	2.98	2.99	2.99	2.99	3.01	3.00	2.91	2.83

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Industry	1963		1962										Annual average		
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
Manufacturing—Continued															
Durable goods—Continued															
Average weekly earnings															
Electrical equipment and supplies.....	\$98.49	\$97.93	\$99.96	\$98.66	\$98.49	\$99.22	\$97.20	\$96.72	\$98.16	\$97.68	\$97.44	\$96.39	\$95.91	\$94.47	\$90.74
Electric distribution equipment.....	104.23	102.91	107.12	104.75	104.60	105.22	102.97	103.94	104.81	102.72	100.50	99.70	99.10	101.00	97.77
Electrical industrial apparatus.....	105.22	103.48	103.38	103.63	103.07	103.98	102.41	102.16	104.33	103.57	103.32	101.59	100.69	99.38	95.44
Household appliances.....	104.92	104.14	103.36	105.41	105.67	105.67	106.08	105.04	105.15	103.72	104.38	102.66	102.66	101.30	96.23
Electric lighting and wiring equipment.....	90.52	90.52	92.52	92.52	91.66	93.25	90.68	89.95	91.30	90.45	90.68	89.02	88.75	87.91	84.71
Radio and TV receiving sets.....	86.41	85.75	87.34	85.67	87.64	89.76	87.67	85.75	87.89	84.32	85.72	83.46	83.46	82.50	80.11
Communication equipment.....	106.90	106.86	108.05	106.86	107.12	107.90	105.26	103.94	105.47	106.66	106.40	105.98	105.73	102.31	98.82
Electronic components and accessories.....	82.35	82.37	83.20	82.80	82.40	83.02	81.39	80.58	83.03	82.82	82.21	81.61	81.00	80.40	76.24
Miscellaneous electrical equipment and supplies.....	106.19	108.94	110.30	107.33	108.26	105.98	100.35	105.41	105.92	105.41	104.08	102.09	103.16	96.32	93.93
Transportation equipment.....	124.15	124.74	129.73	128.27	126.10	124.49	119.19	121.93	121.09	121.96	119.97	118.69	117.26	113.81	111.52
Motor vehicles and equipment.....	127.87	129.63	138.40	137.33	132.24	131.02	121.47	127.25	125.38	128.01	124.66	121.06	119.31	115.09	115.21
Aircraft and parts.....	122.47	122.64	123.94	123.09	122.80	120.38	119.11	118.40	118.56	118.14	118.71	118.58	118.29	115.09	110.43
Ship and boat building and repairing.....	118.15	118.20	119.02	115.49	116.06	116.35	118.49	116.28	114.74	113.68	111.72	112.16	110.32	110.92	103.75
Railroad equipment.....	116.13	118.48	115.15	114.07	115.63	118.89	119.99	118.60	121.99	122.70	120.99	119.29	116.42	108.39	107.86
Other transportation equipment.....	86.33	85.46	86.51	83.85	88.07	88.78	89.01	86.24	89.24	87.33	87.91	82.18	82.47	83.71	80.13
Average weekly hours															
Electrical equipment and supplies.....	40.2	40.3	40.8	40.6	40.7	41.0	40.5	40.3	40.9	40.7	40.6	40.5	40.3	40.2	39.8
Electric distribution equipment.....	40.4	40.2	41.2	40.6	40.7	41.1	40.7	40.6	41.1	40.6	40.2	40.2	39.8	40.4	40.4
Electrical industrial apparatus.....	41.1	40.9	40.7	40.8	40.9	41.1	40.8	40.7	41.4	41.1	41.0	40.8	40.6	40.4	40.1
Household appliances.....	40.2	39.9	41.2	40.7	40.8	40.8	40.8	40.4	40.6	40.2	40.3	40.1	40.1	40.2	39.6
Electric lighting and wiring equipment.....	39.7	39.7	40.4	40.4	40.2	40.9	40.3	39.8	40.4	40.2	40.3	40.1	39.8	39.6	39.4
Radio and TV receiving sets.....	39.1	38.8	39.7	39.3	40.2	40.8	40.4	39.7	40.5	39.4	39.5	39.0	39.0	39.1	38.7
Communication equipment.....	40.8	41.1	41.4	41.1	41.2	41.5	40.8	40.6	41.2	41.5	41.5	41.4	41.3	40.6	40.5
Electronic components and accessories.....	39.4	39.6	40.0	40.0	40.0	40.3	39.7	39.5	40.5	40.4	40.3	40.2	39.9	40.2	39.5
Miscellaneous electrical equipment and supplies.....	41.0	41.9	42.1	41.6	41.8	41.4	40.3	41.5	41.7	41.5	41.3	41.0	41.1	39.8	39.8
Transportation equipment.....	41.8	42.0	43.1	42.9	42.6	42.2	41.1	41.9	41.9	42.2	41.8	41.5	41.0	40.5	40.7
Motor vehicles and equipment.....	42.2	42.5	44.5	44.3	43.5	43.1	40.9	42.7	42.5	43.1	42.4	41.6	41.0	40.1	41.0
Aircraft and parts.....	41.8	42.0	42.3	42.3	42.2	41.8	41.5	41.4	41.6	41.6	41.8	41.9	41.8	41.4	40.9
Ship and boat building and repairing.....	40.6	40.9	40.9	40.1	40.3	40.4	41.0	40.8	40.4	40.6	39.9	40.2	39.4	39.9	39.3
Railroad equipment.....	39.5	40.3	39.3	39.2	39.6	40.3	40.4	39.8	40.8	40.9	40.6	40.3	39.6	38.3	38.8
Other transportation equipment.....	39.6	39.2	39.5	39.0	40.4	41.1	41.4	40.3	41.7	41.0	40.7	38.4	38.9	39.3	38.9
Average hourly earnings															
Electrical equipment and supplies.....	\$2.45	\$2.43	\$2.45	\$2.43	\$2.42	\$2.42	\$2.40	\$2.40	\$2.40	\$2.40	\$2.38	\$2.38	\$2.35	\$2.28	\$2.28
Electric distribution equipment.....	2.58	2.56	2.60	2.58	2.57	2.56	2.53	2.56	2.55	2.53	2.50	2.48	2.49	2.50	2.42
Electrical industrial apparatus.....	2.56	2.53	2.54	2.54	2.52	2.53	2.51	2.51	2.52	2.52	2.52	2.49	2.48	2.46	2.38
Household appliances.....	2.61	2.61	2.63	2.59	2.59	2.59	2.60	2.60	2.59	2.58	2.59	2.56	2.56	2.52	2.43
Electric lighting and wiring equipment.....	2.28	2.28	2.29	2.29	2.28	2.28	2.25	2.26	2.26	2.25	2.25	2.22	2.23	2.22	2.15
Radio and TV receiving sets.....	2.21	2.21	2.20	2.18	2.18	2.20	2.17	2.16	2.17	2.14	2.17	2.14	2.14	2.11	2.07
Communication equipment.....	2.62	2.60	2.61	2.60	2.60	2.60	2.58	2.56	2.56	2.57	2.57	2.56	2.56	2.52	2.44
Electronic components and accessories.....	2.09	2.08	2.08	2.07	2.06	2.06	2.05	2.04	2.05	2.05	2.04	2.03	2.03	2.00	1.93
Miscellaneous electrical equipment and supplies.....	2.59	2.60	2.62	2.58	2.59	2.56	2.49	2.54	2.54	2.54	2.52	2.49	2.51	2.42	2.36
Transportation equipment.....	2.97	2.97	3.01	2.99	2.96	2.95	2.90	2.91	2.89	2.89	2.87	2.86	2.86	2.81	2.74
Motor vehicles and equipment.....	3.03	3.05	3.11	3.10	3.04	3.04	2.97	2.98	2.95	2.97	2.94	2.91	2.91	2.87	2.81
Aircraft and parts.....	2.93	2.92	2.93	2.91	2.91	2.88	2.87	2.86	2.85	2.84	2.84	2.83	2.83	2.78	2.70
Ship and boat building and repairing.....	2.91	2.89	2.91	2.88	2.88	2.88	2.89	2.85	2.84	2.80	2.80	2.79	2.80	2.78	2.64
Railroad equipment.....	2.94	2.94	2.93	2.91	2.92	2.95	2.97	2.98	2.99	3.00	2.98	2.96	2.94	2.83	2.78
Other transportation equipment.....	2.18	2.18	2.19	2.15	2.18	2.16	2.15	2.14	2.14	2.13	2.16	2.14	2.12	2.13	2.06

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Industry	1963			1962										Annual average	
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
Average weekly earnings															
Manufacturing—Continued															
Durable goods—Continued															
Instruments and related products.....	\$101.18	\$100.28	\$102.18	\$101.76	\$100.61	\$100.61	\$100.04	\$99.55	\$100.94	\$99.80	\$100.04	\$98.42	\$98.82	\$97.27	\$93.73
Engineering and scientific instruments.....	119.39	117.71	118.71	119.28	119.00	118.43	118.44	117.03	118.02	115.79	114.39	107.20	115.34	112.48	110.95
Mechanical measuring and control devices.....	99.85	99.14	101.43	100.85	99.79	98.80	98.98	99.23	98.98	98.74	98.82	98.58	98.09	95.91	92.00
Optical and ophthalmic goods.....	93.02	92.80	92.60	90.64	91.30	89.84	88.78	87.29	90.27	89.01	89.87	89.01	87.51	87.33	81.80
Surgical, medical, and dental equipment.....	83.79	83.37	85.05	85.47	84.42	85.89	85.69	85.27	86.31	85.47	85.27	84.24	83.82	82.21	80.40
Photographic equipment and supplies.....	117.59	115.08	118.02	119.14	115.09	115.37	114.13	115.09	116.06	116.06	116.62	117.74	115.79	111.61	106.14
Watches and clocks.....	83.95	82.29	83.13	83.82	83.79	84.00	83.41	82.95	84.00	83.16	84.00	83.39	81.90	80.88	76.83
Miscellaneous manufacturing industries.....															
Jewelry, silverware, and plated ware.....	79.98	79.58	80.19	78.01	78.60	78.60	77.42	77.03	78.60	78.60	78.80	79.00	77.42	75.84	74.28
Toys, amusement and sporting goods.....	85.54	87.20	93.04	90.20	88.51	86.88	84.77	82.68	86.27	86.67	86.24	85.24	80.81	82.62	80.40
Pens, pencils, and office and art materials.....	73.54	73.15	71.44	70.77	72.07	71.28	70.35	69.89	70.98	71.74	72.10	71.74	70.84	70.17	67.73
Costume jewelry, buttons, and notions.....	78.78	76.44	76.76	75.98	75.55	75.52	74.61	74.07	74.82	74.58	74.99	75.39	71.25	72.86	71.92
Other manufacturing industries.....	73.08	71.39	72.47	69.30	70.98	71.64	71.06	72.25	74.07	72.72	73.02	72.98	70.25	68.60	66.13
Other manufacturing industries.....	85.36	84.53	86.22	84.80	85.01	85.46	84.40	83.79	85.03	84.02	84.23	84.65	84.02	81.78	79.99
Average weekly hours															
Instruments and related products.....	40.8	40.6	41.2	41.2	40.9	40.9	41.0	40.8	41.2	40.9	41.0	40.5	40.5	40.7	40.4
Engineering and scientific instruments.....	41.6	41.3	41.8	42.0	41.9	41.7	42.0	41.5	42.0	41.5	41.0	38.7	40.9	40.9	41.4
Mechanical measuring and control devices.....	40.1	40.3	40.9	40.5	40.4	40.0	40.4	40.5	40.4	40.3	40.5	40.4	40.2	40.3	40.0
Optical and ophthalmic goods.....	41.9	41.8	41.9	41.2	41.5	41.4	41.1	40.6	41.6	41.4	41.8	41.4	40.7	41.0	40.1
Surgical, medical, and dental equipment.....	39.9	39.7	40.5	40.7	40.2	40.9	41.0	40.8	41.1	40.7	40.8	40.5	40.3	40.3	40.0
Photographic equipment and supplies.....	41.7	41.1	42.0	42.4	41.4	41.5	41.5	41.7	41.9	41.6	41.8	42.2	41.8	41.8	41.3
Watches and clocks.....	39.6	39.0	39.4	40.3	39.9	40.0	40.1	39.5	40.0	39.6	40.0	39.9	39.0	39.5	39.0
Miscellaneous manufacturing industries.....															
Jewelry, silverware, and plated ware.....	39.4	39.2	39.7	39.6	39.9	40.1	39.7	39.3	39.9	39.9	40.0	40.1	39.1	39.5	39.3
Toys, amusement and sporting goods.....	39.6	40.0	42.1	41.0	40.6	40.6	39.8	39.0	40.5	40.5	40.3	40.4	38.3	40.3	40.2
Pens, pencils, and office and art materials.....	38.5	38.3	38.0	39.1	39.6	39.6	39.3	38.4	39.0	39.2	39.4	39.2	38.5	39.2	38.7
Costume jewelry, buttons, and notions.....	40.4	39.4	40.4	40.2	40.4	40.3	39.9	39.4	39.8	39.8	40.1	40.1	37.7	39.6	39.3
Other manufacturing industries.....	39.5	38.8	39.6	38.5	39.0	39.8	39.7	39.7	40.7	40.4	39.9	40.1	38.6	39.2	38.9
Other manufacturing industries.....	39.7	39.5	40.1	40.0	40.1	40.5	40.0	39.9	40.3	40.2	40.3	40.5	40.2	39.7	39.6
Average hourly earnings															
Instruments and related products.....	\$2.48	\$2.47	\$2.48	\$2.47	\$2.46	\$2.46	\$2.44	\$2.44	\$2.45	\$2.44	\$2.44	\$2.43	\$2.44	\$2.39	\$2.32
Engineering and scientific instruments.....	2.87	2.85	2.84	2.84	2.84	2.84	2.82	2.82	2.81	2.79	2.79	2.77	2.82	2.75	2.68
Mechanical measuring and control devices.....	2.49	2.46	2.48	2.49	2.47	2.47	2.45	2.45	2.45	2.45	2.44	2.44	2.44	2.38	2.30
Optical and ophthalmic goods.....	2.22	2.22	2.21	2.20	2.20	2.17	2.16	2.15	2.17	2.15	2.15	2.15	2.15	2.13	2.04
Surgical, medical, and dental equipment.....	2.10	2.10	2.10	2.10	2.10	2.10	2.09	2.09	2.10	2.10	2.09	2.08	2.08	2.04	2.01
Photographic equipment and supplies.....	2.82	2.80	2.81	2.81	2.78	2.78	2.75	2.76	2.77	2.79	2.79	2.79	2.77	2.67	2.57
Watches and clocks.....	2.12	2.11	2.11	2.08	2.10	2.10	2.08	2.10	2.10	2.10	2.10	2.09	2.10	2.04	1.97
Miscellaneous manufacturing industries.....															
Jewelry, silverware, and plated ware.....	2.03	2.03	2.02	1.97	1.97	1.96	1.95	1.96	1.97	1.97	1.97	1.97	1.98	1.92	1.89
Toys, amusement and sporting goods.....	2.16	2.18	2.21	2.20	2.18	2.14	2.13	2.12	2.13	2.14	2.14	2.11	2.11	2.05	2.00
Pens, pencils, and office and art materials.....	1.91	1.91	1.88	1.81	1.82	1.80	1.79	1.82	1.82	1.83	1.83	1.83	1.84	1.79	1.75
Costume jewelry, buttons, and notions.....	1.95	1.94	1.90	1.89	1.87	1.87	1.87	1.88	1.88	1.88	1.87	1.88	1.89	1.84	1.83
Other manufacturing industries.....	1.85	1.84	1.83	1.80	1.82	1.80	1.79	1.82	1.82	1.80	1.83	1.82	1.82	1.75	1.70
Other manufacturing industries.....	2.15	2.14	2.15	2.12	2.12	2.11	2.11	2.10	2.11	2.09	2.09	2.09	2.09	2.06	2.02

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Industry	1963		1962										Annual average			
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960	
Average weekly earnings																
Transportation and public utilities:																
Railroad transportation:																
Class I railroads ³							\$114.26	\$118.21	\$116.45	\$115.33	\$114.65	\$112.02	\$113.48	\$117.12	\$112.41	\$108.84
Local and interurban passenger transit:																
Local and suburban transportation	\$101.16	\$99.42	\$100.86	\$100.62	\$100.38	100.20	101.01	100.49	101.48	100.58	100.11	99.30	99.22	98.24	94.82	
Intercity and rural buslines	122.54	125.12	116.33	117.73	119.14	125.65	129.44	126.62	121.80	117.85	115.37	112.61	117.23	112.14	105.22	
Motor freight transportation and storage	113.83	111.52	114.54	113.30	113.30	115.78	115.35	114.81	114.39	112.61	112.06	110.70	109.47	108.16	104.17	
Pipeline transportation	137.76	138.58	139.52	131.78	130.07	135.05	130.09	137.37	133.50	130.17	129.85	130.40	131.13	131.78	124.53	
Communication:																
Telephone communication	101.35	99.94	101.35	103.07	102.06	102.31	99.29	99.54	97.66	96.14	95.65	95.89	96.14	93.38	89.50	
Telegraph communication ⁴	108.05	108.05	106.97	105.78	107.74	109.98	110.08	111.11	111.28	108.61	105.42	105.00	105.00	104.08	100.01	
Radio and television broadcasting	130.99	134.30	130.93	132.78	131.14	130.81	126.10	127.53	124.68	126.16	126.81	124.68	124.23	119.74	121.13	
Electric, gas, and sanitary services:																
Electric companies and systems	119.31	119.60	121.18	119.48	118.78	118.94	116.85	117.14	115.87	115.46	115.46	115.34	114.65	112.48	108.65	
Gas companies and systems	119.72	120.42	121.60	119.89	120.30	120.06	118.82	119.11	117.14	116.31	116.03	117.58	114.65	112.75	109.45	
Combined utility systems	113.03	111.38	114.40	111.11	110.70	111.51	106.92	107.73	106.80	107.06	107.20	105.18	106.11	104.19	100.69	
Water, steam, and sanitary systems	128.33	128.64	130.94	129.27	128.23	127.82	125.97	125.87	125.26	125.66	125.46	125.46	125.05	121.77	117.26	
	98.71	97.64	96.70	97.34	95.47	97.29	95.06	96.59	94.37	93.96	94.37	93.09	94.02	93.02	89.84	
Average weekly hours																
Transportation and public utilities:																
Railroad transportation:																
Class I railroads ³							41.1	43.3	42.5	42.4	43.1	41.8	42.5	42.9	42.1	41.7
Local and interurban passenger transit:																
Local and suburban transportation	41.8	41.6	42.2	42.1	42.0	42.1	42.8	42.4	43.0	42.8	42.6	42.8	42.4	42.9	43.1	43.1
Intercity and rural buslines	43.3	43.9	41.4	41.6	42.4	44.4	45.9	44.9	43.5	42.7	41.8	41.1	43.1	42.8	42.6	42.6
Motor freight transportation and storage	40.8	40.7	41.5	41.2	41.5	42.1	42.1	41.9	41.9	41.4	41.2	41.0	41.0	41.6	41.5	41.5
Pipeline transportation	40.4	41.0	41.4	40.3	39.9	40.8	40.4	41.5	40.7	40.3	40.2	40.0	40.1	40.3	40.8	40.8
Communication:																
Telephone communication	39.9	39.5	39.9	40.9	40.5	40.6	40.2	40.3	39.7	39.4	39.2	39.3	39.4	39.4	39.6	39.6
Telegraph communication ⁴	41.4	41.4	41.3	41.0	41.6	42.3	42.5	42.9	42.8	43.1	42.0	42.0	42.0	41.8	42.2	42.2
Radio and television broadcasting	39.1	39.5	39.2	39.4	39.5	39.4	38.8	39.0	38.6	38.7	38.9	38.6	38.7	38.5	38.7	38.7
Electric, gas, and sanitary services:																
Electric companies and systems	41.0	41.1	41.5	41.2	41.1	41.3	41.0	41.1	40.8	40.8	40.8	40.9	40.8	40.9	41.0	41.0
Gas companies and systems	41.0	41.1	41.5	41.2	41.4	41.4	41.4	41.5	41.1	41.1	41.0	41.4	40.8	41.0	41.0	41.0
Combined utility systems	41.1	41.1	41.6	41.0	41.0	41.3	40.5	40.5	40.3	40.4	40.3	40.3	40.5	40.7	40.6	40.6
Water, steam, and sanitary systems	41.0	41.1	41.7	41.3	41.1	41.1	40.9	41.0	40.8	40.8	41.0	41.0	41.0	41.0	41.0	41.0
	41.3	41.2	40.8	40.9	40.8	41.4	40.8	41.1	40.5	40.5	40.5	40.3	40.7	40.8	41.4	41.4
Average hourly earnings																
Transportation and public utilities:																
Railroad transportation:																
Class I railroads ³							\$2.78	\$2.73	\$2.74	\$2.72	\$2.66	\$2.68	\$2.67	\$2.73	\$2.67	\$2.61
Local and interurban passenger transit:																
Local and suburban transportation	\$2.42	\$2.39	\$2.39	\$2.39	\$2.39	2.38	2.36	2.37	2.36	2.35	2.35	2.32	2.34	2.29	2.20	2.20
Intercity and rural buslines	2.83	2.85	2.81	2.83	2.81	2.83	2.82	2.82	2.80	2.76	2.76	2.74	2.72	2.62	2.47	2.47
Motor freight transportation and storage	2.79	2.74	2.76	2.75	2.73	2.75	2.74	2.74	2.73	2.72	2.72	2.70	2.67	2.60	2.51	2.51
Pipeline transportation	3.41	3.38	3.37	3.27	3.26	3.31	3.22	3.31	3.28	3.23	3.23	3.26	3.27	3.27	3.09	3.09
Communication:																
Telephone communication	2.54	2.53	2.54	2.52	2.52	2.52	2.47	2.47	2.46	2.44	2.44	2.44	2.44	2.37	2.26	2.26
Telegraph communication ⁴	2.61	2.61	2.59	2.58	2.59	2.60	2.59	2.60	2.52	2.52	2.51	2.50	2.50	2.49	2.37	2.37
Radio and television broadcasting	3.35	3.40	3.34	3.37	3.32	3.32	3.25	3.27	3.23	3.26	3.26	3.23	3.21	3.11	3.13	3.13
Electric, gas, and sanitary services:																
Electric companies and systems	2.91	2.91	2.92	2.90	2.89	2.88	2.85	2.85	2.84	2.83	2.83	2.82	2.81	2.75	2.65	2.65
Gas companies and systems	2.92	2.93	2.93	2.91	2.92	2.90	2.87	2.87	2.85	2.83	2.83	2.84	2.81	2.75	2.65	2.65
Combined utility systems	2.75	2.71	2.75	2.71	2.70	2.70	2.64	2.66	2.65	2.65	2.66	2.61	2.62	2.56	2.48	2.48
Water, steam, and sanitary systems	3.13	3.13	3.14	3.13	3.12	3.11	3.08	3.07	3.07	3.08	3.06	3.06	3.05	2.97	2.86	2.86
	2.39	2.37	2.37	2.38	2.34	2.35	2.33	2.35	2.33	2.32	2.33	2.31	2.31	2.28	2.17	2.17

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Industry	1963				1962								Annual average		
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
Average weekly earnings															
Wholesale and retail trade ⁴ —Continued															
Retail trade ⁴ —Continued															
Furniture and appliance stores.....	\$80.60	\$82.21	\$83.63	\$81.39	\$80.38	\$81.38	\$81.56	\$82.17	\$80.54	\$79.90	\$79.93	\$79.71	\$79.10	\$77.64	\$74.98
Other retail trade.....	76.41	76.82	77.19	76.63	76.22	75.76	76.68	76.49	76.54	75.76	75.17	74.57	73.98	73.57	71.57
Motor vehicle dealers.....	92.64	92.43	93.96	95.05	93.08	90.48	93.07	93.73	94.60	93.73	92.64	91.33	89.18	88.44	87.91
Other vehicle and accessory dealers.....	80.91	82.47	81.84	78.58	79.64	80.70	81.77	81.51	80.70	80.15	79.82	79.02	77.25	78.59	77.26
Drug stores.....	57.88	58.40	58.30	57.31	57.31	57.72	58.75	58.06	57.13	56.58	56.06	56.06	56.21	55.80	53.34
Finance, insurance, and real estate:															
Banking.....	74.03	74.23	73.30	72.72	72.54	71.97	71.80	72.56	71.80	71.42	71.62	71.62	71.23	69.19	67.15
Security dealers and exchanges.....	118.26	117.26	116.09	112.66	109.10	111.25	110.68	116.29	123.73	117.09	120.03	119.37	121.50	133.35	117.12
Insurance carriers.....	94.84	95.41	94.60	94.26	94.07	93.76	94.35	94.89	93.21	93.25	93.20	92.62	92.60	89.83	87.41
Life insurance.....	99.43	100.98	100.14	99.57	99.44	98.92	100.61	100.82	98.65	98.70	98.55	98.00	97.99	95.11	93.32
Accident and health insurance.....	81.11	81.77	80.20	79.14	78.20	78.45	78.30	77.97	78.00	78.42	78.34	78.34	77.44	74.41	71.33
Fire, marine, and casualty insurance.....	91.57	90.56	89.68	89.58	89.44	89.27	88.50	89.71	88.32	88.09	88.23	87.72	87.98	85.14	81.96
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels ⁶	47.23	47.36	47.62	47.99	47.72	46.05	45.89	45.94	47.64	46.77	46.29	46.53	46.41	45.54	43.89
Personal services:															
Laundries, cleaning and dyeing plants.....	50.29	50.69	51.08	50.70	50.83	50.83	50.83	50.70	51.35	51.87	50.83	49.41	48.64	49.28	48.11
Motion pictures:															
Motion picture filming and distributing.....	119.25	120.13	124.01	116.99	120.82	120.01	117.50	115.37	114.19	111.97	115.92	114.57	114.88	116.45	113.69
Average weekly hours															
Wholesale and retail trade ⁴ —Continued															
Retail trade ⁴ —Continued															
Furniture and appliance stores.....	40.5	40.7	41.4	40.9	40.8	41.1	41.4	41.5	41.3	41.4	41.2	41.3	41.2	41.3	41.2
Other retail trade.....	41.3	41.3	41.5	41.2	41.2	41.4	41.9	41.8	41.6	41.4	41.3	41.2	41.1	41.8	42.1
Motor vehicle dealers.....	43.7	43.6	43.7	43.6	43.7	43.5	43.9	43.8	44.0	43.8	43.7	43.7	43.5	44.0	44.4
Other vehicle and accessory dealers.....	43.5	44.1	44.0	43.9	44.0	44.1	44.2	44.3	44.1	43.8	44.1	43.9	43.4	44.4	44.4
Drug stores.....	36.4	36.5	36.9	36.5	36.5	37.0	37.9	37.7	37.1	36.5	36.4	36.4	36.5	37.2	37.3
Finance, insurance, and real estate:															
Banking.....	37.2	37.3	37.4	37.1	37.2	37.1	37.2	37.4	37.2	37.2	37.3	37.3	37.1	37.0	37.1
Security dealers and exchanges.....															
Insurance carriers.....															
Life insurance.....															
Accident and health insurance.....															
Fire, marine, and casualty insurance.....															
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels ⁶	38.4	38.5	38.4	38.7	38.8	38.7	39.9	39.6	39.7	39.3	38.9	39.1	39.0	39.6	39.9
Personal services:															
Laundries, cleaning and dyeing plants.....	38.1	38.4	38.7	38.7	39.1	39.1	39.1	39.3	39.5	39.9	39.4	38.6	38.0	38.8	38.8
Motion pictures:															
Motion picture filming and distributing.....															
Average hourly earnings															
Wholesale and retail trade ⁴ —Continued															
Retail trade ⁴ —Continued															
Furniture and appliance stores.....	\$1.99	\$2.02	\$2.02	\$1.99	\$1.97	\$1.98	\$1.97	\$1.98	\$1.95	\$1.93	\$1.94	\$1.93	\$1.92	\$1.88	\$1.82
Other retail trade.....	1.85	1.86	1.86	1.86	1.85	1.83	1.83	1.83	1.84	1.83	1.82	1.81	1.80	1.76	1.70
Motor vehicle dealers.....	2.12	2.12	2.15	2.18	2.13	2.08	2.12	2.14	2.15	2.14	2.12	2.09	2.05	2.01	1.98
Other vehicle and accessory dealers.....	1.86	1.87	1.86	1.79	1.81	1.83	1.85	1.84	1.83	1.83	1.81	1.80	1.78	1.77	1.74
Drug stores.....	1.59	1.60	1.58	1.57	1.57	1.56	1.55	1.54	1.54	1.55	1.54	1.54	1.54	1.50	1.43
Finance, insurance, and real estate:															
Banking.....	1.99	1.99	1.96	1.96	1.95	1.94	1.93	1.94	1.93	1.92	1.92	1.92	1.92	1.87	1.81
Security dealers and exchanges.....															
Insurance carriers.....															
Life insurance.....															
Accident and health insurance.....															
Fire, marine, and casualty insurance.....															
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels ⁶	1.23	1.23	1.24	1.24	1.23	1.19	1.15	1.16	1.20	1.19	1.19	1.19	1.19	1.15	1.10
Personal services:															
Laundries, cleaning and dyeing plants.....	1.32	1.32	1.32	1.31	1.30	1.30	1.30	1.29	1.30	1.30	1.29	1.28	1.28	1.27	1.24
Motion pictures:															
Motion picture filming and distributing.....															

¹ For comparability of data with those published in issues prior to December 1961, see footnote 1, table A-2. For employees covered, see footnote 1, table A-3.

² Preliminary.

³ Based upon monthly data summarized in the M-200 report by the Interstate Commerce Commission, which relate to all employees who received pay during the month, except executives, officials, and staff assistants (ICC Group D).

⁴ Data relate to nonsupervisory employees except messengers.

⁵ Excludes eating and drinking places.

⁶ Money payments only, additional value of board, room, uniforms, and tips not included.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics for all series except that for Class I railroads. (See footnote 3.)

TABLE C-2. Average weekly hours, seasonally adjusted, of production workers in selected industries¹

Industry division and group	1963				1962								
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.
Mining.....	41.7	41.3	40.6	41.1	41.1	41.3	41.2	40.9	40.6	41.0	41.5	41.3	41.4
Contract construction.....	36.6	36.5	35.4	37.3	37.2	37.7	37.3	37.4	36.7	37.5	36.6	37.3	37.0
Manufacturing.....	40.3	40.2	40.3	40.4	40.1	40.5	40.2	40.5	40.5	40.6	40.8	40.5	40.3
Durable goods.....	41.0	40.7	41.1	41.1	40.7	41.0	40.9	41.0	41.0	41.1	41.3	41.0	40.9
Ordinance and accessories.....	41.6	41.2	41.6	41.4	41.1	41.2	41.4	40.9	41.5	41.3	41.8	41.5	41.3
Lumber and wood products except furniture.....	40.0	40.0	39.7	39.7	39.4	40.2	40.3	40.4	39.6	40.2	39.7	39.3	40.1
Furniture and fixtures.....	40.6	40.5	40.4	40.6	40.5	40.8	40.5	40.6	41.3	41.3	41.5	40.9	40.6
Stone, clay and glass products.....	40.7	40.4	40.5	40.9	41.0	41.3	41.2	41.4	41.0	41.2	41.1	40.9	40.6
Primary metal industries.....	40.6	40.2	40.2	40.1	39.7	39.9	39.7	39.6	39.6	39.9	40.9	40.9	40.9
Fabricated metal products.....	41.2	41.2	40.8	41.3	41.1	41.0	41.0	41.1	41.4	41.3	41.5	41.3	41.1
Machinery.....	41.7	41.6	41.6	41.7	41.5	41.7	41.9	41.8	41.8	41.9	42.0	41.7	41.7
Electrical equipment and supplies.....	40.4	40.3	40.3	40.5	40.5	40.6	40.5	40.7	40.7	40.7	41.1	40.7	40.5
Transportation equipment.....	42.1	41.6	42.3	42.9	42.2	42.4	41.5	42.1	41.9	42.2	42.1	41.5	41.2
Instruments and related products.....	41.0	40.6	41.2	40.9	40.7	40.8	41.0	40.8	41.1	41.1	41.2	40.6	40.7
Miscellaneous manufacturing industries.....	39.6	39.4	39.5	39.3	39.4	40.0	39.7	39.8	39.9	40.1	40.3	40.1	39.2
Nondurable goods.....	39.4	39.4	39.6	39.4	39.3	39.7	39.4	39.8	40.0	40.1	40.2	39.9	39.5
Food and kindred products.....	40.8	40.7	40.9	41.0	40.7	41.1	40.7	41.6	41.1	41.3	41.2	40.9	40.7
Tobacco manufactures.....	37.3	38.5	39.0	39.4	38.7	39.5	37.4	37.1	37.9	38.6	39.6	39.6	38.7
Textile mill products.....	40.1	40.0	40.2	39.9	40.0	40.3	40.3	40.7	41.0	41.3	41.5	40.9	40.6
Apparel and related products.....	36.1	35.8	36.4	36.1	35.8	36.4	36.1	36.4	36.8	36.6	37.1	36.7	35.8
Paper and allied products.....	42.6	42.5	42.8	42.5	42.2	42.6	42.5	42.7	42.8	42.6	42.7	42.7	42.6
Printing, publishing, and allied industries.....	38.2	38.1	38.3	38.1	37.0	38.3	38.3	38.3	38.4	38.4	38.6	38.5	38.3
Chemicals and allied products.....	41.4	41.3	41.4	41.4	41.5	41.5	41.5	41.5	41.6	41.7	41.7	41.5	41.6
Petroleum refining and related industries.....	41.0	41.8	41.9	41.6	41.8	42.1	41.7	41.7	41.7	41.6	41.3	40.9	41.1
Rubber and miscellaneous plastic products.....	41.0	40.9	41.0	40.9	40.6	41.0	40.5	40.5	41.5	41.5	41.8	41.0	40.6
Leather and leather products.....	36.7	36.8	37.4	36.9	36.9	37.8	37.5	37.6	38.0	38.0	38.6	37.9	37.4
Wholesale and retail trade ³	38.7	38.7	38.7	38.7	38.6	38.7	38.7	38.7	38.7	38.8	38.7	38.8	38.8
Wholesale trade.....	40.5	40.4	40.6	40.6	40.5	40.6	40.6	40.6	40.7	40.7	40.8	40.7	40.5
Retail trade.....	37.9	37.8	38.0	37.9	37.8	38.0	37.9	37.9	37.9	38.0	37.8	38.0	38.0

¹ For employees covered, see footnote 1, table A-3.² Preliminary.³ Excludes eating and drinking places.NOTE: The seasonal adjustment method used is described in "New Seasonal Adjustment Factors for Labor Force Components," *Monthly Labor Review*, August 1960, pp. 822-827.TABLE C-3. Average hourly earnings excluding overtime of production workers in manufacturing, by major industry group¹

Major industry group	1963		1962										Annual average		
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
Manufacturing.....	\$2.36	\$2.36	\$2.35	\$2.33	\$2.32	\$2.31	\$2.29	\$2.31	\$2.31	\$2.31	\$2.31	\$2.31	\$2.31	\$2.25	\$2.20
Durable goods.....	2.53	2.52	2.52	2.50	2.48	2.48	2.46	2.47	2.47	2.47	2.48	2.48	2.47	2.42	2.36
Ordinance and accessories.....	2.81	2.81	2.78	2.78	2.76	2.77	2.75	2.75	2.76	2.76	2.76	2.75	2.74	2.71	2.60
Lumber and wood products except furniture.....	1.89	1.89	1.92	1.93	1.91	1.93	1.91	1.91	1.91	1.89	1.90	1.87	1.87	1.88	1.82
Furniture and fixtures.....	1.90	1.90	1.90	1.89	1.89	1.88	1.88	1.88	1.88	1.89	1.88	1.88	1.87	1.86	1.82
Stone, clay, and glass products.....	2.36	2.36	2.36	2.35	2.33	2.33	2.32	2.32	2.32	2.30	2.31	2.30	2.29	2.25	2.20
Primary metal industries.....	2.92	2.91	2.90	2.89	2.89	2.89	2.88	2.88	2.88	2.89	2.92	2.92	2.92	2.84	2.75
Fabricated metal products.....	2.50	2.49	2.49	2.48	2.47	2.48	2.46	2.47	2.46	2.47	2.46	2.45	2.45	2.42	2.36
Machinery.....	2.66	2.65	2.65	2.64	2.63	2.62	2.60	2.60	2.60	2.60	2.60	2.59	2.59	2.54	2.47
Electrical equipment and supplies.....	2.39	2.38	2.38	2.36	2.35	2.35	2.33	2.34	2.34	2.34	2.34	2.32	2.32	2.30	2.23
Transportation equipment.....	2.86	2.86	2.86	2.84	2.83	2.83	2.80	2.80	2.78	2.78	2.77	2.77	2.78	2.72	2.65
Instruments and related products.....	2.42	2.40	2.40	2.40	2.39	2.38	2.37	2.37	2.37	2.38	2.37	2.36	2.37	2.32	2.26
Miscellaneous manufacturing industries.....	1.98	1.98	1.96	1.92	1.91	1.90	1.90	1.92	1.91	1.91	1.92	1.92	1.92	1.87	1.84
Nondurable goods.....	2.13	2.14	2.12	2.11	2.10	2.10	2.09	2.10	2.10	2.09	2.09	2.09	2.08	2.05	1.99
Food and kindred products.....	2.23	2.22	2.20	2.17	2.15	2.13	2.13	2.13	2.16	2.16	2.17	2.17	2.17	2.09	2.02
Tobacco manufactures.....	1.91	1.88	1.85	1.83	1.68	1.67	1.78	1.95	1.96	1.95	1.93	1.88	1.83	1.74	1.67
Textile mill products.....	1.64	1.63	1.63	1.63	1.63	1.62	1.62	1.62	1.62	1.62	1.62	1.61	1.59	1.57	1.56
Apparel and related products.....	1.65	1.66	1.64	1.64	1.64	1.65	1.64	1.63	1.62	1.63	1.64	1.65	1.64	1.61	1.56
Paper and allied products.....	2.33	2.33	2.32	2.31	2.31	2.30	2.30	2.29	2.28	2.27	2.27	2.27	2.26	2.23	2.15
Printing, publishing, and allied industries.....	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Chemicals and allied products.....	2.62	2.62	2.62	2.61	2.60	2.59	2.59	2.58	2.57	2.54	2.53	2.53	2.54	2.51	2.43
Petroleum refining and related industries.....	3.04	3.07	2.99	2.98	2.96	2.96	2.95	2.97	2.95	2.95	2.97	2.97	2.97	2.94	2.82
Rubber and miscellaneous plastic products.....	2.40	2.41	2.41	2.39	2.38	2.38	2.38	2.40	2.38	2.36	2.35	2.34	2.34	2.32	2.26
Leather and leather products.....	1.71	1.71	1.70	1.71	1.70	1.70	1.69	1.68	1.69	1.69	1.69	1.68	1.68	1.65	1.61

¹ For comparability of data with those published in issues prior to December 1961, see footnote 1, table A-2. For employees covered, see footnote 1, table A-3. Average hourly earnings excluding overtime are derived by assuming that overtime hours are paid for at the rate of time and one-half.² Preliminary.³ Not available because average overtime rates are significantly above time and one-half. Inclusion of data for the group in the nondurable goods total has little effect.

TABLE C-5. Indexes of aggregate weekly man-hours and payrolls in industrial and construction activities¹
[1957-59=100]

Activity	1963			1962										Annual average	
	Mar. ²	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1961	1960
	Man-hours														
Total.....	93.8	92.4	93.4	96.3	99.2	101.7	103.4	102.0	100.6	100.8	99.1	97.1	94.4	95.1	99.0
Mining.....	77.8	77.6	77.9	79.8	81.3	83.3	84.3	85.4	82.4	85.4	84.0	82.7	81.5	84.9	91.1
Contract construction.....	75.6	69.5	75.1	80.7	94.9	105.3	107.7	110.6	107.7	99.5	97.3	87.3	75.7	94.3	98.3
Manufacturing.....	98.0	97.3	97.5	100.0	100.9	102.0	103.6	101.3	100.2	101.8	100.1	99.6	98.4	95.8	99.6
Durable goods.....	99.0	98.4	98.7	100.7	101.2	101.8	102.4	99.0	99.8	102.2	101.2	100.5	98.8	93.9	99.4
Ordnance and accessories.....	125.8	126.5	127.9	129.9	129.5	127.4	128.0	127.4	123.1	122.4	123.8	124.6	123.0	118.1	111.7
Lumber and wood products, except furniture.....	88.9	89.8	90.6	92.5	96.2	99.6	103.1	105.0	102.3	102.7	98.2	92.9	88.2	94.0	99.2
Furniture and fixtures.....	100.3	101.4	101.7	105.7	106.0	107.9	108.0	107.3	101.6	104.5	102.1	102.1	101.5	97.7	102.6
Stone, clay, and glass products.....	90.7	87.7	88.2	91.7	98.0	100.8	102.1	103.0	101.6	101.3	99.2	95.1	89.5	94.8	100.4
Primary metal industries.....	95.5	93.9	92.2	92.2	90.0	89.8	92.5	90.5	90.3	95.2	97.5	102.8	103.0	91.6	98.0
Fabricated metal products.....	98.3	97.6	98.4	100.2	100.7	101.9	102.7	99.6	98.8	102.6	100.8	99.2	97.6	94.1	99.9
Machinery.....	101.7	100.6	100.2	100.2	99.1	99.6	100.2	99.6	100.4	102.8	101.9	101.7	100.1	93.2	99.7
Electrical equipment and supplies.....	110.9	111.8	113.1	115.8	115.8	116.4	116.9	113.4	111.8	114.5	112.2	111.4	110.4	104.1	105.8
Transportation equipment.....	96.9	96.7	98.2	100.7	99.5	97.9	95.7	82.9	93.9	95.2	95.6	93.4	92.8	83.8	92.1
Instruments and related products.....	103.1	102.3	102.0	103.8	104.1	103.3	103.0	103.1	101.0	103.1	101.6	101.7	100.7	98.8	102.8
Miscellaneous manufacturing industries.....	95.6	94.5	91.8	98.9	107.6	111.2	110.7	107.2	101.5	105.1	102.6	100.6	97.9	98.8	101.4
Non-durable goods.....	96.7	95.9	96.0	99.1	100.6	102.2	105.2	104.3	100.8	101.2	98.8	98.4	97.9	98.2	99.8
Food and kindred products.....	86.3	85.6	88.1	99.3	96.8	102.5	110.0	106.4	101.8	95.9	91.3	89.1	86.5	96.5	98.0
Tobacco manufactures.....	76.3	80.8	89.7	100.0	99.6	120.5	133.2	104.1	74.0	75.6	75.4	76.3	79.6	94.4	97.1
Textile mill products.....	90.9	90.6	90.2	92.2	94.4	94.8	94.6	95.7	94.2	97.7	96.4	95.9	95.8	93.5	96.5
Apparel and related products.....	107.5	105.4	100.7	103.5	105.8	105.4	107.8	109.5	102.7	105.5	103.3	105.1	106.1	99.1	101.8
Paper and allied products.....	102.4	101.6	102.6	105.0	104.4	105.1	106.6	106.1	104.1	105.8	103.0	102.8	102.3	102.0	102.1
Printing, publishing, and allied industries.....	101.8	100.7	100.9	104.2	106.0	106.0	106.8	105.1	104.0	105.1	104.8	105.2	105.3	104.6	104.4
Chemicals and allied products.....	104.3	102.4	102.5	103.5	103.5	103.7	104.5	104.3	104.2	104.8	105.7	105.7	103.2	100.8	101.6
Petroleum refining and related industries.....	78.8	78.0	80.6	81.4	82.7	83.5	86.5	88.4	90.7	90.2	88.4	87.5	85.4	89.0	93.5
Rubber and miscellaneous plastic products.....	107.6	107.8	109.3	111.1	111.3	112.0	112.0	109.2	106.8	112.3	108.2	105.9	105.5	99.5	101.5
Leather and leather products.....	94.7	95.8	95.7	97.8	95.9	93.7	97.0	101.7	99.5	100.6	95.3	96.4	99.9	97.4	97.5
	Payrolls														
Mining.....	85.5	85.7	87.6	87.9	90.2	92.0	92.2	88.8	92.0	90.3	89.7	88.7	89.9	95.2	
Contract construction.....	83.4	83.4	90.3	96.9	111.9	123.9	127.0	128.5	124.8	114.0	111.6	101.2	87.6	106.4	106.9
Manufacturing.....	113.1	112.0	112.1	115.0	115.3	115.7	117.4	113.6	113.2	115.1	113.2	112.6	110.9	105.2	106.6

¹ For comparability of data with those published in issues prior to December 1961, see footnote 1, table A-2.
For mining and manufacturing, data refer to production and related workers

and for contract construction, to construction workers, as defined in footnote 1, table A-3.
² Preliminary.

TABLE C-6. Gross and spendable average weekly earnings of production workers in manufacturing¹
[In current and 1957-59 dollars]

Item	1963		1962										Annual average		
	Feb. ²	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1961	1960
<i>Manufacturing</i>															
Gross average weekly earnings:															
Current dollars.....	\$97.20	\$97.44	\$98.42	\$97.36	\$96.72	\$97.68	\$95.75	\$96.80	\$97.27	\$96.80	\$96.56	\$95.91	\$95.20	\$92.34	\$89.72
1957-59 dollars.....	91.61	91.92	93.02	91.85	91.25	92.06	90.76	91.75	92.37	92.02	91.79	91.34	90.84	88.62	87.02
Spendable average weekly earnings:															
Worker with no dependents:															
Current dollars.....	77.91	78.11	79.35	78.50	77.99	78.76	77.21	78.05	78.43	78.05	77.86	77.34	76.77	74.60	72.57
1957-59 dollars.....	73.43	73.69	75.00	74.06	73.58	74.23	73.18	73.98	74.48	74.19	74.01	73.66	73.25	71.59	70.39
Worker with 3 dependents:															
Current dollars.....	85.58	85.78	87.05	86.19	85.66	86.45	84.87	85.73	86.11	85.73	85.53	85.00	84.41	82.18	80.11
1957-59 dollars.....	80.66	80.92	82.28	81.31	80.81	81.48	80.45	81.26	81.78	81.49	81.30	80.95	80.54	78.87	77.70

¹ For comparability of data with those published in issues prior to December 1961, see footnote 1, table A-2. For employees covered, see footnote 1, table A-3.

Spendable average weekly earnings are based on gross average weekly earnings as published in table C-1 less the estimated amount of the workers' Federal social security and income tax liability. Since the amount of tax liability depends on the number of dependents supported by the worker as well as on the level of his gross income, spendable earnings have been com-

puted for 2 types of income receivers: (1) A worker with no dependents, and (2) a worker with 3 dependents.

The earnings expressed in 1957-59 dollars have been adjusted for changes in purchasing power as measured by the Bureau's Consumer Price Index.
² Preliminary.

NOTE: These series are described in "The Calculation and Uses of the Spendable Earnings Series," *Monthly Labor Review*, January 1959, pp. 50-54.

D.—Consumer and Wholesale Prices

TABLE D-1. Consumer Price Index.¹—All-city average: *All items, groups, subgroups, and special groups of items

[1957-59=100]

Group	1963				1962								Annual average		
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1962	1961
All items.....	106.2	106.1	106.0	105.8	106.0	106.0	106.1	105.5	105.5	105.3	105.2	105.2	105.0	105.4	104.2
Food ²	104.6	105.0	104.7	103.5	104.1	104.3	104.8	103.8	103.8	103.5	103.2	103.4	103.2	103.6	102.6
Food at home.....	103.0	103.5	103.2	101.9	102.6	102.9	103.5	102.3	102.4	102.1	101.9	102.1	101.9	102.2	101.5
Cereals and bakery products.....	109.1	109.2	108.7	108.2	108.4	108.0	107.9	107.8	107.9	107.4	107.5	107.3	107.3	107.6	105.4
Meats, poultry, and fish.....	100.7	102.1	102.5	102.5	103.5	104.1	106.3	102.6	100.8	99.7	99.6	100.1	100.6	101.7	99.3
Dairy products.....	103.5	103.6	103.8	103.9	104.2	104.3	104.2	103.9	103.5	102.7	103.0	103.7	105.0	104.1	104.8
Fruits and vegetables.....	109.6	109.4	106.4	100.2	102.1	102.0	102.2	105.2	109.9	111.9	109.4	108.6	104.4	105.0	104.2
Other foods at home ³	96.7	97.1	97.6	97.2	97.2	98.1	97.8	95.2	94.1	93.4	94.4	95.1	96.1	96.1	97.6
Housing ⁴	105.7	105.4	105.4	105.2	105.1	105.0	104.9	104.8	104.8	104.8	104.7	104.6	104.6	104.8	103.9
Rent.....	106.4	106.4	106.3	106.2	106.2	106.1	105.9	105.8	105.7	105.6	105.5	105.4	105.3	105.7	104.4
Gas and electricity.....	108.0	108.0	108.2	108.1	108.1	108.0	108.0	108.0	108.0	107.7	107.7	107.8	107.9	107.9	107.9
Solid and petroleum fuels.....	104.8	104.8	104.9	104.8	103.6	102.4	101.3	100.1	99.7	99.4	100.1	102.4	103.6	102.1	101.6
Housefurnishings.....	98.6	98.3	97.9	98.6	98.7	98.8	98.7	98.5	99.0	99.1	99.0	99.3	99.5	98.9	99.5
Household operation.....	109.7	109.3	109.3	108.1	107.8	107.6	107.6	107.4	107.5	107.4	107.4	107.1	107.1	107.4	105.9
Apparel.....	103.6	103.3	103.0	103.9	104.3	104.9	104.6	102.5	102.9	102.8	102.7	102.7	102.7	103.2	102.8
Men's and boys'.....	103.9	103.7	103.5	104.3	104.3	104.2	104.0	102.9	103.2	103.1	103.1	102.9	102.8	103.3	102.8
Women's and girls'.....	101.1	100.7	100.2	101.5	102.5	104.0	103.6	99.9	100.4	100.5	100.0	100.3	100.4	100.9	101.0
Footwear.....	110.0	109.9	109.8	109.9	109.7	109.6	109.5	109.3	109.2	109.1	109.1	109.2	109.1	109.3	107.8
Other apparel ⁵	101.1	100.9	100.3	101.3	101.1	101.6	101.2	100.3	100.8	100.4	100.6	100.3	100.3	100.6	100.9
Transportation.....	107.0	106.8	106.6	108.0	108.3	108.1	107.8	107.4	106.8	107.3	107.3	107.2	105.9	107.2	105.0
Private.....	105.6	105.3	105.3	106.8	107.2	106.9	106.7	106.2	105.4	106.0	106.0	106.0	106.4	105.9	104.0
Public.....	116.4	116.3	115.7	115.7	116.4	116.0	115.7	115.7	115.6	115.6	115.6	115.6	114.9	115.4	111.7
Medical care.....	115.8	115.6	115.5	115.3	115.0	114.9	114.7	114.6	114.6	114.4	114.1	113.9	113.6	114.2	111.3
Personal care.....	107.3	107.3	107.4	107.6	107.1	106.9	106.8	106.8	106.8	106.1	106.4	106.3	105.9	106.5	104.6
Reading and recreation.....	110.1	110.0	110.2	110.0	110.1	109.5	110.0	110.3	110.0	109.2	109.5	109.4	109.2	109.6	107.2
Other goods and services.....	105.7	105.7	105.7	105.6	105.6	105.6	105.6	105.5	105.6	105.2	105.1	105.1	105.1	105.3	104.6
Special groups:															
All items less food.....	106.8	106.6	106.5	106.7	106.7	106.7	106.6	106.2	106.1	106.1	106.0	106.0	105.7	106.1	104.8
All items less shelter.....	106.1	106.1	105.9	105.8	106.0	106.1	106.1	105.5	105.4	105.3	105.2	105.2	105.0	105.4	104.2
All commodities less food.....	102.9	102.7	102.6	103.4	103.5	103.6	103.4	102.6	102.5	102.6	102.6	102.8	102.4	102.8	102.1
All commodities.....	103.7	103.8	103.6	103.6	103.9	104.0	104.1	103.2	103.1	103.1	103.0	103.1	102.8	103.2	102.4
Nondurables ⁶	104.4	104.5	104.3	104.0	104.2	104.4	104.7	103.5	103.5	103.4	103.2	103.5	103.2	103.6	102.8
Nondurables less food.....	104.2	104.1	104.0	104.6	104.4	104.6	104.6	103.2	103.3	103.4	103.5	103.8	103.5	103.8	103.2
Nondurables less food and apparel.....	104.7	104.6	104.7	105.1	104.5	104.5	104.6	103.7	103.5	103.8	104.0	104.4	104.0	104.2	103.3
Durables ⁷	100.8	100.6	100.4	101.7	102.2	102.0	101.6	101.7	101.5	101.6	101.5	101.4	100.9	101.5	100.5
Durables less cars.....	98.5	98.4	98.5	98.6	98.6	98.6	98.6	98.7	98.7	98.8	98.9	98.9	99.0	98.8	98.8
All services ⁸	110.8	110.5	110.5	110.1	110.0	109.8	109.8	109.9	109.8	109.5	109.4	109.2	109.0	109.5	107.6
All services less rent.....	111.6	111.2	111.2	110.8	110.6	110.5	110.5	110.6	110.5	110.2	110.1	109.8	109.6	110.2	108.3
Household operation services, gas, and electricity.....	110.2	109.9	109.9	109.1	108.8	108.7	108.6	108.5	108.6	108.5	108.4	108.2	108.2	108.5	107.2
Transportation services.....	111.8	111.4	111.1	110.9	110.7	110.8	110.5	111.7	111.7	111.5	111.5	111.3	111.2	109.5	
Medical care services.....	118.9	118.7	118.5	118.2	118.0	117.8	117.5	117.3	117.2	116.9	116.6	116.2	115.8	113.1	
Other services.....	110.0	109.6	109.7	109.3	109.3	109.1	109.3	109.3	109.1	108.7	108.7	108.2	108.0	108.7	

*The Consumer Price Index for March 1963 calculated from a 1947-49 =100 base was 130.3.

¹The Consumer Price Index measures the average change in prices of goods and services purchased by urban wage-earner and clerical-worker families. Data for 46 large, medium-size, and small cities are combined for the all-city average.

²In addition to subgroups shown here, total food includes restaurant meals and other food bought and eaten away from home.

³Includes eggs, fats and oils, sugar and sweets, beverages (nonalcoholic), and other miscellaneous foods.

⁴In addition to subgroups shown here, total housing includes the purchase price of homes and other homeowner costs.

⁵Includes yard goods, diapers, and miscellaneous items.

⁶Includes food, house paint, solid fuels, fuel oil, textile housefurnishings, household paper, electric light bulbs, laundry soap and detergents, apparel

(except shoe repairs), gasoline, motor oil, prescriptions and drugs, toilet goods, nondurable toys, newspapers, cigarettes, cigars, beer, and whiskey.

⁷Includes water heaters, central heating furnaces, kitchen sinks, sink faucets, porch flooring, household appliances, furniture and bedding, floor coverings, dinnerware, automobiles, tires, radio and television sets, durable toys, and sporting goods.

⁸Includes rent, home purchase, real estate taxes, mortgage, interest, property insurance, repainting garage, repainting rooms, reshingling roof, refinishing floors, gas, electricity, dry cleaning, laundry service, domestic service, telephone, water, postage, shoe repairs, auto repairs, auto insurance, auto registration, transit fares, railroad fares, professional medical services, hospital services, hospitalization and surgical insurance, barber and beauty shop services, television repairs and motion picture admissions.

TABLE D-2. Consumer Price Index ¹—All items and food indexes, by city

1957-59=100]

City	1963			1962									Annual average		1963 (1947-49=100)	
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1962	1961	Mar.
All Items																
All-city average ²	106.2	106.1	106.0	105.8	106.0	106.0	106.1	105.5	105.5	105.3	105.2	105.2	105.0	105.4	104.2	130.3
Atlanta, Ga.....	104.9	(3)	(3)	104.5	(2)	(3)	104.7	(3)	(3)	104.0	(3)	(3)	103.7	104.1	103.2	129.9
Baltimore, Md.....	106.2	(3)	(3)	105.7	(2)	(3)	106.0	(3)	(3)	104.8	(3)	(3)	104.6	105.2	104.4	131.8
Boston, Mass.....	(3)	(3)	103.6	(3)	(2)	108.2	(3)	(3)	107.2	(3)	(3)	107.1	(3)	107.4	105.1	(3)
Chicago, Ill.....	105.2	104.7	104.7	104.7	105.0	105.0	105.2	104.4	104.5	104.5	104.6	104.8	104.5	104.6	103.6	132.7
Cincinnati, Ohio.....	104.5	(3)	(3)	104.0	(3)	(3)	104.3	(3)	(3)	103.3	(3)	(3)	103.3	103.6	102.6	127.2
Cleveland, Ohio.....	(3)	104.3	(3)	(3)	103.7	(3)	(3)	103.8	(3)	(3)	103.5	(3)	(3)	103.5	103.2	(3)
Detroit, Mich.....	102.6	102.6	102.5	102.5	102.6	102.8	102.8	102.3	101.9	101.8	102.0	102.2	102.0	102.2	101.9	126.5
Houston, Tex.....	(3)	105.0	(3)	(3)	104.5	(3)	(3)	104.6	(3)	(3)	104.7	(3)	(3)	104.6	102.6	(3)
Kansas City, Mo.....	(3)	(3)	105.9	(3)	(3)	107.1	(3)	(3)	106.0	(3)	(3)	105.7	(3)	106.1	104.5	(3)
Los Angeles, Calif.....	107.7	107.8	107.3	107.2	107.1	107.2	107.2	106.6	106.8	107.0	106.9	106.3	106.1	106.6	105.4	134.3
Minneapolis, Minn.....	(3)	(3)	106.0	(3)	(3)	105.9	(3)	(3)	105.7	(3)	(3)	105.5	(3)	105.5	104.2	(3)
New York, N.Y.....	107.6	107.6	107.5	106.9	107.1	107.2	107.3	106.6	106.4	105.8	105.7	106.0	105.9	106.4	104.8	129.7
Philadelphia, Pa.....	106.4	106.2	105.9	105.7	105.8	105.8	106.0	105.2	105.3	104.9	104.7	105.1	105.0	105.2	104.4	130.7
Pittsburgh, Pa.....	(3)	(3)	106.5	(3)	(3)	106.3	(3)	(3)	106.0	(3)	(3)	105.7	(3)	105.9	105.0	(3)
Portland, Ore.....	(3)	(3)	105.7	(3)	(3)	105.3	(3)	(3)	104.8	(3)	(3)	103.9	(3)	104.6	104.1	(3)
St. Louis, Mo.....	105.8	(3)	(3)	105.0	(3)	(3)	105.6	(3)	(3)	104.4	(3)	(3)	104.8	105.1	103.9	131.3
San Francisco, Calif.....	103.4	(3)	(3)	107.8	(3)	(3)	107.5	(3)	(3)	107.5	(3)	(3)	107.3	107.4	105.8	137.6
Scranton, Pa.....	(3)	106.9	(3)	(3)	106.5	(3)	(3)	106.0	(3)	(3)	105.7	(3)	(3)	105.9	104.1	(3)
Seattle, Wash.....	(3)	107.2	(3)	(3)	107.0	(3)	(3)	106.7	(3)	(3)	106.3	(3)	(3)	106.5	104.9	(3)
Washington, D.C.....	(3)	105.6	(3)	(3)	105.3	(3)	(3)	104.8	(3)	(3)	104.2	(3)	(3)	104.6	103.7	(3)
Food																
All-city average ²	104.6	105.0	104.7	103.5	104.1	104.3	104.8	103.8	103.8	103.5	103.2	103.4	103.2	103.6	102.6	-----
Atlanta, Ga.....	103.8	104.2	104.0	102.7	103.1	103.9	104.3	103.4	102.9	103.0	103.1	102.7	102.5	103.0	101.8	-----
Baltimore, Md.....	103.7	103.9	104.6	103.4	103.6	104.2	104.5	104.2	103.4	103.0	102.7	102.7	102.4	103.3	102.4	-----
Boston, Mass.....	106.5	106.3	106.4	105.7	106.4	105.7	105.7	105.0	104.3	104.2	103.7	103.5	104.0	104.6	102.4	-----
Chicago, Ill.....	105.7	105.4	105.6	104.3	105.7	105.7	106.7	105.8	105.7	105.2	104.6	105.6	105.2	105.3	103.2	-----
Cincinnati, Ohio.....	102.6	103.7	103.1	101.7	102.8	103.0	103.7	102.2	102.4	101.5	101.2	101.5	101.3	101.9	101.8	-----
Cleveland, Ohio.....	101.7	102.2	101.7	100.8	101.3	101.7	102.4	101.5	101.4	101.2	101.1	100.6	100.4	101.0	100.9	-----
Detroit, Mich.....	101.1	101.7	101.3	100.6	101.6	101.5	101.6	100.8	101.2	100.9	101.4	101.2	100.9	101.1	101.4	-----
Houston, Tex.....	102.3	103.0	103.2	102.4	102.8	103.6	104.0	102.9	103.1	102.2	103.1	102.9	102.9	102.9	101.3	-----
Kansas City, Mo.....	103.6	104.3	103.2	103.2	104.4	104.5	105.1	104.2	103.7	103.0	102.6	101.8	103.1	103.3	101.9	-----
Los Angeles, Calif.....	106.8	107.8	106.8	105.6	105.3	105.6	105.9	104.7	105.0	106.1	106.2	105.4	105.5	105.5	104.5	-----
Minneapolis, Minn.....	101.8	101.7	101.5	100.8	100.9	101.5	102.5	101.8	102.5	102.3	102.4	102.4	101.7	101.8	101.2	-----
New York, N.Y.....	106.6	106.8	106.6	104.9	105.8	106.3	107.0	105.7	104.8	103.7	103.5	104.5	104.4	104.9	102.9	-----
Philadelphia, Pa.....	104.1	104.4	104.5	103.0	103.5	104.8	104.8	103.6	103.8	102.6	102.3	102.6	102.5	103.1	101.9	-----
Pittsburgh, Pa.....	104.1	104.3	103.2	101.7	102.5	102.8	103.4	102.5	102.4	102.5	102.4	101.7	102.5	102.4	102.3	-----
Portland, Ore.....	104.6	105.2	105.3	103.9	104.1	104.5	104.8	103.4	103.6	104.2	104.3	103.0	102.5	103.6	103.0	-----
St. Louis, Mo.....	104.5	105.0	104.9	104.6	104.5	103.8	104.2	102.7	102.8	102.3	102.3	102.2	102.5	103.0	102.0	-----
San Francisco, Calif.....	106.9	107.0	106.7	105.6	105.8	105.6	105.0	104.3	105.5	105.9	105.4	105.4	105.7	105.4	104.0	-----
Scranton, Pa.....	103.3	104.4	104.1	102.9	103.6	104.1	103.8	102.3	103.1	103.5	103.2	102.9	102.6	103.1	101.3	-----
Seattle, Wash.....	107.3	106.9	106.3	105.9	105.9	105.9	106.6	106.0	106.1	106.5	105.5	106.3	105.0	105.7	104.5	-----
Washington, D.C.....	103.6	103.2	103.9	101.8	102.1	103.4	103.0	102.6	102.2	101.1	101.5	101.6	101.7	102.0	101.6	-----

¹ See footnote 1, table D-1. Indexes measure time-to-time changes in prices of goods and services purchased by urban wage-earner and clerical-worker families. They do not indicate whether it costs more to live in one city than in another.

² Average of 46 cities.

³ All items indexes are computed monthly for 5 cities and once every month on a rotating cycle for 15 other cities.

TABLE D-3. Indexes of wholesale prices,¹ by group and subgroup of commodities—Continued[1957-59=100, unless otherwise specified]²

Commodity group	1963			1962									Annual Average		
	Mar. ³	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1962 ⁴	1961
All commodities except farm and foods—Continued															
Metals and metal products.....	99.4	99.4	99.5	99.3	99.3	99.4	99.7	99.8	99.7	99.8	100.2	100.3	100.4	100.0	100.7
Iron and steel.....	98.5	98.6	98.8	98.7	98.4	98.7	99.0	99.1	98.9	98.9	99.2	99.6	99.8	99.3	100.7
Nonferrous metals.....	98.1	98.0	98.0	97.7	98.3	97.9	98.9	99.0	99.0	99.3	99.9	99.8	100.1	99.2	100.4
Metal containers.....	104.5	104.5	104.5	103.7	103.7	103.7	103.7	103.7	103.7	103.7	103.7	103.7	103.7	103.7	102.0
Hardware.....	104.0	104.0	103.8	103.8	103.8	103.7	103.7	103.7	103.7	104.2	104.1	104.1	104.4	104.0	103.8
Plumbing fixtures and brass fittings.....	101.3	101.1	97.5	97.5	97.5	97.2	96.8	96.8	97.1	98.5	103.8	103.7	103.9	100.1	103.1
Heating equipment.....	92.7	92.4	92.5	93.3	92.8	92.7	92.6	92.9	92.9	92.9	93.1	93.7	93.7	93.2	94.6
Fabricated structural metal products.....	98.0	98.0	98.1	98.1	98.1	98.2	98.2	98.3	98.3	98.3	98.3	98.1	98.1	98.2	99.0
Fabricated nonstructural metal products.....	103.7	103.7	103.7	103.8	103.9	103.8	103.9	103.9	103.9	103.9	104.1	104.4	104.1	103.9	103.1
Machinery and motive products.....	102.0	102.2	102.3	102.3	102.2	102.2	102.3	102.3	102.3	102.4	102.3	102.3	102.3	102.3	102.3
Agricultural machinery and equipment.....	111.0	110.8	110.8	110.5	110.2	109.6	109.4	109.4	109.5	109.5	109.3	109.2	109.4	109.5	107.4
Construction machinery and equipment.....	108.8	108.5	108.3	108.3	108.2	108.0	107.7	107.7	107.6	107.7	107.7	107.7	107.6	107.8	107.5
Metalworking machinery and equipment.....	109.2	109.1	109.2	109.3	109.3	109.3	109.3	109.5	109.6	109.7	109.5	109.4	109.2	109.3	107.0
General purpose machinery and equipment.....	103.4	103.6	103.9	103.8	103.7	103.7	103.6	103.3	102.9	103.1	103.2	103.1	103.2	103.3	102.8
Miscellaneous machinery.....	103.7	103.4	103.4	103.4	103.3	103.3	103.2	103.5	103.4	103.2	103.1	103.1	103.2	103.4	102.8
Special industry machinery and equipment ¹⁰	103.1	103.1	102.9	102.8	102.5	102.2	102.0	102.0	102.0	101.8	101.8	101.7	101.5	101.9	100.4
Electrical machinery and equipment.....	97.0	97.8	98.0	98.1	98.1	98.4	98.4	98.0	98.1	98.4	98.6	98.6	98.7	98.4	100.0
Motor vehicles.....	100.3	100.4	100.4	100.4	100.4	100.4	100.9	100.9	100.9	100.9	100.9	100.1	100.1	100.5	100.7
Transportation equipment, railroad rolling stock ¹⁰	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.2
Furniture and other household durables.....	98.2	98.2	98.3	98.4	98.6	98.5	98.6	98.7	98.8	98.9	99.0	98.9	99.0	98.8	99.5
Household furniture.....	104.5	104.5	104.5	104.2	104.1	104.0	103.9	104.0	104.1	103.9	103.7	103.4	103.4	103.8	102.8
Commercial furniture.....	102.3	102.3	102.3	102.3	102.5	102.5	102.5	102.5	102.4	102.2	102.2	102.2	102.2	102.3	101.8
Floor coverings.....	96.0	95.9	96.2	96.4	96.8	96.8	96.7	96.7	96.7	96.9	97.0	97.0	97.0	97.0	99.3
Household appliances.....	92.3	92.3	92.3	93.0	93.1	93.0	93.2	93.6	93.9	94.3	94.3	94.7	94.9	94.0	95.2
Television, radio receivers, and phonographs.....	89.4	90.1	90.1	90.4	90.4	90.7	90.7	90.8	90.8	90.9	92.3	91.2	91.4	91.1	95.3
Other household durable goods.....	102.8	102.8	102.8	102.8	102.9	102.9	103.1	102.9	103.0	103.2	103.2	103.2	103.2	103.1	102.5
Nonmetallic mineral products.....	101.5	101.5	101.4	101.5	101.6	101.6	101.5	101.6	101.6	101.9	102.1	102.4	102.2	101.8	101.8
Flat glass.....	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	98.0	98.0	98.0	97.9	96.2	97.0	96.8
Concrete ingredients.....	103.0	103.0	102.7	103.2	103.3	103.3	103.3	103.3	103.3	103.2	103.2	103.1	103.1	103.2	102.8
Concrete products.....	102.2	102.2	102.5	102.5	102.8	102.7	102.6	102.6	102.6	102.5	102.5	102.6	102.6	102.6	102.5
Structural clay products.....	103.6	103.6	103.7	103.5	103.4	103.4	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.5	103.2
Gypsum products.....	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	103.8
Prepared asphalt roofing.....	94.1	94.1	89.4	89.4	89.4	89.4	89.4	89.4	89.4	95.3	99.0	101.4	101.4	94.8	98.6
Other nonmetallic minerals.....	101.5	101.5	102.2	102.4	102.4	102.2	101.5	101.7	101.7	102.0	102.0	102.8	102.8	102.2	102.2
Tobacco products and bottled beverages.....	104.3	104.3	104.3	104.3	104.5	104.5	104.2	104.2	104.2	104.1	104.1	104.0	104.0	104.1	103.2
Tobacco products.....	102.2	102.2	102.2	102.2	102.2	102.2	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.1	102.0
Alcoholic beverages.....	101.1	101.1	101.1	101.1	101.5	101.5	101.1	101.1	100.7	101.1	101.1	100.8	100.8	101.0	100.6
Nonalcoholic beverages.....	117.4	117.4	117.4	117.4	117.4	117.4	117.1	117.1	116.7	116.7	116.7	116.7	116.7	116.9	112.8
Miscellaneous products.....	110.9	111.5	111.6	110.2	109.8	108.7	109.1	107.2	107.6	105.4	106.0	106.0	105.6	107.3	103.9
Toys, sporting goods, small arms, ammunition.....	101.1	101.1	101.3	101.3	101.2	101.2	101.1	101.0	101.0	100.7	100.5	100.5	100.5	100.8	100.9
Manufactured animal feeds.....	117.1	118.2	118.3	115.7	114.9	112.8	113.7	110.2	111.0	107.2	108.2	108.3	107.5	110.6	104.6
Notions and accessories.....	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.9
Jewelry, watches, and photographic equipment.....	103.8	104.0	104.0	104.4	104.4	104.4	104.4	104.4	104.3	104.2	104.1	104.1	103.7	104.2	103.5
Other miscellaneous products.....	101.7	101.7	101.8	101.5	101.7	101.6	101.2	101.0	101.0	100.9	100.9	101.3	101.6	101.3	101.2

¹ As of January 1961, new weights reflecting 1958 values were introduced into the index. See "Weight Revisions in the Wholesale Price Index 1890-1960," *Monthly Labor Review*, February 1962, pp. 175-182.

² As of January 1962, the indexes were converted from the former base of 1947-49=100 to the new base of 1957-59=100. Technical details and earlier data on the 1957-59 base furnished upon request to the Bureau.

³ Preliminary.

⁴ Revised.

⁵ Formerly titled "other processed foods."

⁶ Formerly titled "other textile products."

⁷ January 1958=100.

⁸ Discontinued.

⁹ Formerly titled "other rubber products."

¹⁰ January 1961=100.

TABLE D-4. Indexes of wholesale prices for special commodity groupings¹[1957-59=100, unless otherwise specified]²

Commodity group	1963			1962										Annual average	
	Mar. ³	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1962 ⁴	1961
All foods.....	99.1	100.1	101.1	99.9	101.3	101.2	102.9	100.5	99.6	98.9	99.3	99.7	101.4	100.6	100.0
All fish.....	117.3	118.4	121.9	120.9	118.3	119.0	119.8	121.6	119.0	118.3	119.4	118.9	120.3	119.2	107.9
All commodities except farm products.....	100.4	100.6	100.7	100.8	100.8	100.8	101.2	100.8	100.8	100.6	100.7	100.8	100.9	100.9	100.8
Textile products, excluding hard fiber products.....	98.3	98.4	98.4	98.5	98.3	98.4	98.7	99.0	99.2	99.2	99.2	99.0	98.9	98.8	97.7
Bituminous coal—domestic sizes.....	100.8	101.5	101.5	101.5	100.4	99.1	98.1	95.9	95.0	94.0	93.6	95.4	102.1	98.3	99.9
Refined petroleum products.....	98.2	97.1	98.2	98.6	98.6	98.9	99.2	97.2	98.0	98.1	97.9	98.9	95.3	98.2	99.3
East Coast markets.....	98.9	98.9	98.9	100.1	98.9	97.8	97.8	97.8	97.8	97.8	99.0	100.0	101.5	99.4	100.9
Midcontinent markets.....	98.6	88.6	94.4	97.5	101.4	101.4	101.4	101.4	101.4	101.4	98.6	99.4	85.1	98.2	99.6
Gulf Coast markets.....	97.7	97.9	97.9	97.4	95.6	97.9	99.2	99.2	99.2	99.2	96.0	97.9	99.7	98.6	101.2
Pacific Coast markets.....	90.7	90.7	91.7	91.7	91.7	91.4	91.4	91.4	91.4	91.4	92.9	99.3	89.3	90.9	89.9
Midwest markets ⁵	95.5	95.0	97.6	97.7	98.3	97.2	97.2	87.0	90.8	93.4	95.9	98.4	88.2	94.2	93.5
Soaps.....	103.5	103.5	103.5	103.5	103.5	103.5	103.5	102.2	102.2	102.2	102.1	102.1	102.1	102.6	101.4
Synthetic detergents.....	99.6	99.6	99.6	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	100.8
Pharmaceutical preparations.....	96.8	96.6	96.6	96.1	96.4	96.3	96.3	96.3	96.4	98.5	98.4	98.3	98.3	97.3	98.9
Ethical preparations ⁶	95.7	95.7	95.7	95.0	95.4	95.4	95.4	95.4	95.5	98.4	98.4	98.3	98.4	96.9	99.3
Anti-infectives ⁶	88.5	88.5	88.5	85.6	87.6	87.6	87.7	87.7	87.9	98.7	98.7	98.7	98.7	93.1	99.3
Anti-arthritis ⁶	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6
Sedatives and hypnotics ⁶	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	102.6
Anaractics ⁶	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Anti-spasmodics and anti-cholinergics ⁶	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cardiovasculars and anti-hypertensives ⁶	100.7	100.7	100.7	98.7	101.6	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.5	100.5
Diabetics ⁶	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	104.2	104.2	104.2	104.2	104.2	104.0	101.9
Hormones ⁶	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.5	100.0	99.6	100.0
Diuretics ⁶	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dermatologicals ⁶	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.6	100.6	100.7	100.2
Hematitics ⁶	108.8	108.8	108.8	108.5	108.5	108.5	108.5	108.5	108.5	108.5	108.5	108.5	108.5	108.5	106.1
Analgesics ⁶	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	100.9
Anti-obesity preparations ⁶	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cough and cold preparations ⁶	100.7	100.7	100.7	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	98.9	98.9	100.0	99.4
Vitamins ⁶	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	95.0
Proprietary preparations ⁶	101.4	101.0	100.9	100.7	100.7	100.5	100.5	100.5	100.7	100.7	100.7	100.4	100.3	100.5	100.1
Vitamins ⁷	100.3	100.3	100.3	100.3	100.3	99.6	100.3	100.3	100.3	100.3	100.3	100.0	100.0	100.1	100.0
Cough and cold preparations ⁸	100.1	100.1	99.5	100.1	100.1	100.1	100.1	100.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Laxatives and elimination aids ⁸	103.8	101.7	101.7	101.6	101.6	101.6	101.6	101.6	101.5	102.0	102.0	101.2	99.7	101.1	99.8
Internal analgesics ⁸	101.9	101.3	101.3	101.3	101.3	101.3	101.1	101.1	101.1	101.1	101.1	101.1	101.1	101.2	100.4
Tonics and alteratives ⁸	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
External analgesics ⁸	102.3	102.3	102.3	101.3	101.3	100.8	100.7	100.7	100.7	101.2	101.2	101.2	100.2	100.8	100.0
Antiseptics ⁸	101.7	101.7	101.7	100.9	100.9	100.9	100.1	100.1	100.1	100.0	100.0	100.0	100.0	100.2	100.0
Antacids ⁸	100.1	100.1	100.1	98.9	98.9	98.9	98.9	98.9	98.9	100.6	100.6	100.6	100.0	99.6	100.0
Lumber and wood products (excluding millwork).....	95.3	94.9	94.6	94.6	95.2	95.6	96.1	96.4	96.8	96.6	96.4	96.2	95.6	95.6	94.7
Softwood lumber.....	95.5	95.3	95.0	95.0	95.6	96.1	96.8	97.3	97.6	97.1	87.0	96.1	95.0	95.9	93.5
Pulp, paper, and allied products (excluding building paper and board).....	99.3	99.3	99.1	99.1	99.2	99.4	99.6	99.9	100.2	100.7	101.0	101.5	101.1	100.1	98.7
Special metals and metal products ⁹	100.1	100.2	100.2	100.1	100.1	100.1	100.4	100.5	100.5	100.5	100.5	100.6	100.7	100.5	101.0
Steel mill products.....	101.2	101.3	101.3	101.3	101.3	101.4	101.3	101.3	101.4	101.5	101.5	101.5	101.5	101.4	101.7
Machinery and equipment.....	102.6	102.9	103.0	103.0	102.8	103.0	102.8	102.8	102.9	103.0	103.1	103.1	103.1	102.9	102.9
Agricultural machinery (including tractors).....	112.0	111.9	111.8	111.4	111.3	110.7	110.5	110.4	110.5	110.5	110.3	110.2	110.4	110.5	108.3
Metalworking machinery.....	108.5	108.5	108.6	108.7	108.7	108.8	108.7	109.0	109.1	109.2	109.0	109.0	108.8	108.8	106.6
All tractors.....	110.6	110.5	110.4	110.2	110.0	109.5	109.2	109.1	109.3	109.4	109.4	109.3	109.6	109.4	108.0
Industrial valves.....	107.4	107.4	107.8	108.0	108.0	108.0	108.0	107.7	107.3	104.6	106.6	107.2	107.9	107.9	107.4
Industrial fittings.....	90.9	94.6	94.6	94.6	94.6	94.6	93.9	93.9	93.9	92.7	92.7	92.7	92.7	93.0	88.2
Antifriction bearings and components.....	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	92.5
Abrasive grinding wheels.....	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	98.3	98.3	100.4	98.5	96.2
Construction materials.....	97.7	97.6	97.7	97.7	97.9	98.0	98.1	98.3	98.4	98.5	98.9	98.9	98.7	98.3	98.6

¹ See footnote 1, table D-3.² See footnote 2, table D-3.³ Preliminary.⁴ Revised.⁵ New series. January 1961=100.⁶ Metals and metal products, agricultural machinery and equipment, and motor vehicles.

TABLE D-5. Indexes of wholesale prices,¹ by stage of processing and durability of product

[1957-59=100]*

Commodity group	1963			1962										Annual average	
	Mar. ³	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1962 ²	1961
All commodities.....	99.9	100.2	100.5	100.4	100.7	100.6	101.2	100.5	100.4	100.0	100.2	100.4	100.7	100.6	100.3
<i>Stage of processing</i>															
Crude materials for further processing.....	94.5	95.6	96.8	96.8	97.6	97.4	99.2	97.2	96.5	95.2	95.8	96.5	97.6	97.1	96.1
Crude foodstuffs and feedstuffs.....	92.8	94.7	97.1	97.1	98.2	97.9	100.6	97.4	96.0	94.0	94.7	95.5	96.9	96.8	94.9
Crude nonfood materials except fuel.....	96.7	96.4	95.8	95.8	95.9	96.0	96.3	96.6	97.0	97.3	97.9	98.3	98.7	97.4	97.9
Crude nonfood materials, except fuel, for manufacturing.....	96.2	95.8	95.2	95.1	95.3	95.3	95.7	96.0	96.5	96.8	97.4	97.9	98.3	96.9	97.4
Crude nonfood materials, except fuel, for construction.....	103.0	103.0	102.7	103.2	103.3	103.3	103.3	103.3	103.3	103.2	103.3	103.1	103.1	103.2	102.8
Crude fuel.....	105.4	105.6	103.3	104.0	103.4	103.2	102.0	100.6	101.0	98.7	99.6	99.7	103.1	101.8	102.3
Crude fuel for manufacturing.....	105.2	105.5	103.2	103.9	103.4	103.2	102.0	100.6	101.0	98.8	99.6	99.7	103.0	101.8	102.2
Crude fuel for nonmanufacturing.....	105.7	106.0	103.5	104.3	103.7	103.5	102.2	100.8	101.2	98.8	99.7	99.7	103.3	102.0	102.4
Intermediate materials, supplies, and components.....	100.0	100.1	100.2	100.1	100.1	100.1	100.2	100.1	100.3	100.2	100.4	100.5	100.3	100.2	100.3
Intermediate materials and components for manufacturing.....	98.6	98.7	98.8	98.7	98.8	98.9	99.0	99.1	99.2	99.3	98.8	99.4	99.5	99.2	99.8
Intermediate materials for food manufacturing.....	101.2	101.2	101.0	99.9	100.2	100.8	100.4	99.8	99.4	99.5	99.6	100.4	101.5	100.5	102.6
Intermediate materials for nondurable manufacturing.....	97.1	97.2	97.3	97.3	97.4	97.6	97.7	97.8	98.1	98.3	98.4	98.5	98.3	98.0	98.6
Intermediate materials for durable manufacturing.....	99.8	99.8	100.0	99.9	100.1	100.1	100.4	100.5	100.6	100.6	100.7	100.7	100.6	100.4	100.5
Components for manufacturing.....	98.2	98.5	98.6	98.8	98.6	98.6	98.7	98.7	98.7	98.9	98.8	98.9	99.1	98.8	99.6
Materials and components for construction.....	98.9	98.9	98.8	98.9	99.0	99.1	99.2	99.3	99.3	99.5	99.7	99.8	99.7	99.3	99.7
Processed fuels and lubricants.....	100.8	100.3	100.6	101.4	101.7	102.0	102.1	100.8	101.4	101.2	101.2	101.5	99.5	101.2	101.6
Processed fuels and lubricants for manufacturing.....	102.2	101.9	101.9	102.6	102.7	102.9	102.9	100.9	102.4	102.1	102.2	102.4	101.1	102.3	102.5
Processed fuels and lubricants for nonmanufacturing.....	98.4	97.6	98.4	99.4	100.0	100.4	100.6	99.0	99.6	99.7	99.5	99.9	96.8	99.4	100.1
Containers, nonreturnable.....	101.1	101.4	101.6	101.5	101.6	101.4	101.4	101.6	102.1	102.6	102.7	103.4	103.1	102.2	100.9
Supplies.....	106.4	106.7	106.6	105.9	105.6	105.0	105.2	104.3	104.7	103.8	104.2	104.2	103.9	104.5	102.3
Supplies for manufacturing.....	105.7	105.8	105.7	105.9	105.9	106.1	106.0	105.8	105.9	105.9	105.7	105.5	105.5	105.7	105.2
Supplies for nonmanufacturing.....	106.2	106.5	106.4	105.3	104.9	104.0	104.3	103.2	103.7	102.4	103.0	103.1	102.7	103.5	100.6
Manufactured animal feeds.....	110.5	111.4	111.5	109.1	108.3	106.2	107.0	103.7	104.5	100.8	101.8	101.9	101.1	104.1	97.5
Other supplies.....	101.6	101.5	101.3	101.1	101.0	100.9	100.8	101.1	101.3	101.6	101.9	102.1	101.8	101.3	100.5
Finished goods (goods to users, including raw foods and fuels).....	101.1	101.5	101.8	101.6	102.0	101.9	102.6	101.7	101.5	101.1	101.2	101.4	101.8	101.7	101.4
Consumer finished goods.....	100.4	100.9	101.2	101.0	101.5	101.5	102.3	101.1	100.8	100.4	100.5	100.7	101.3	101.2	100.9
Consumer goods.....	99.1	100.4	101.4	100.7	102.1	101.9	103.9	101.3	100.3	99.3	99.5	100.1	101.9	101.3	100.4
Consumer crude goods.....	99.5	98.9	103.4	95.9	102.8	100.9	101.5	96.3	93.4	93.7	96.7	97.6	101.7	98.6	97.6
Consumer processed goods.....	99.0	100.7	101.1	101.4	101.9	102.0	104.3	102.1	101.4	100.2	99.9	100.4	101.9	101.7	100.8
Consumer other nondurable goods.....	101.9	101.7	101.7	101.8	101.7	101.8	101.7	101.4	101.5	101.4	101.5	101.6	101.3	101.6	101.5
Consumer durable goods.....	99.7	99.8	99.8	99.9	100.0	99.9	100.1	100.1	100.2	100.0	100.0	99.9	100.0	100.0	100.5
Producer finished goods.....	102.9	103.0	103.0	102.9	102.9	102.8	102.9	103.0	103.0	102.8	102.9	102.9	102.8	102.9	102.5
Producer finished goods for manufacturing.....	104.5	104.6	104.7	104.7	104.6	104.5	104.5	104.5	104.6	104.4	104.4	104.4	104.3	104.4	103.8
Producer finished goods for nonmanufacturing.....	101.4	101.4	101.5	101.4	101.3	101.3	101.3	101.5	101.5	101.3	101.4	101.4	101.4	101.4	101.2
<i>Durability of product</i>															
Total durable goods.....	100.6	100.7	100.7	100.7	100.7	100.7	100.9	101.0	101.0	101.0	101.1	101.2	101.2	101.0	101.3
Total nondurable goods.....	99.2	99.7	100.2	100.0	100.5	100.4	101.2	100.0	99.8	99.3	99.5	99.7	100.2	100.1	99.6
Total manufactures.....	100.2	100.4	100.6	100.6	100.7	100.7	101.1	100.7	100.8	100.6	100.7	100.7	100.7	100.8	100.7
Durable manufactures.....	100.9	101.0	101.1	101.1	101.1	101.1	101.3	101.3	101.4	101.4	101.5	101.5	101.4	101.3	101.4
Nondurable manufactures.....	99.4	99.7	100.0	100.0	100.2	100.2	100.9	100.0	100.1	99.8	99.8	99.9	100.0	100.1	100.0
Total raw or slightly processed goods.....	98.3	99.1	100.2	99.4	100.5	100.2	101.1	99.2	98.4	97.3	98.1	98.8	100.1	99.5	98.3
Durable raw or slightly processed goods.....	88.7	88.6	87.9	86.4	85.4	86.3	87.8	88.3	86.8	86.7	89.1	90.8	91.9	89.2	95.2
Nondurable raw or slightly processed goods.....	98.8	99.7	100.9	100.1	101.4	101.0	101.9	99.9	99.0	97.9	98.6	99.2	100.6	100.1	98.5

¹ See footnote 1, table D-3.² See footnote 2, table D-3.³ Preliminary.NOTE: For description of the series by stage of processing, see "New BLS Economic Sector Indexes of Wholesale Prices," *Monthly Labor Review*, December 1955, pp. 1448-1453; and by durability of product and data beginning with 1947, see *Wholesale Prices and Price Indexes, 1957*, BLS Bulletin 1235 (1958).

E.—Work Stoppages

TABLE E-1. Work stoppages resulting from labor-management disputes ¹

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average).....	2,862	-----	1,130,000	-----	16,900,000	0.27
1947-49 (average).....	3,573	-----	2,380,000	-----	39,700,000	.46
1945.....	4,750	-----	3,470,000	-----	38,000,000	.47
1946.....	4,985	-----	4,600,000	-----	116,000,000	1.43
1947.....	3,693	-----	2,170,000	-----	34,600,000	.41
1948.....	3,419	-----	1,960,000	-----	34,100,000	.37
1949.....	3,606	-----	3,030,000	-----	50,500,000	.59
1950.....	4,843	-----	2,410,000	-----	38,800,000	.44
1951.....	4,737	-----	2,220,000	-----	22,900,000	.23
1952.....	5,117	-----	3,540,000	-----	59,100,000	.57
1953.....	5,091	-----	2,400,000	-----	28,300,000	.26
1954.....	3,468	-----	1,530,000	-----	22,600,000	.21
1955.....	4,320	-----	2,650,000	-----	28,200,000	.26
1956.....	3,825	-----	1,900,000	-----	33,100,000	.29
1957.....	3,673	-----	1,390,000	-----	16,500,000	.14
1958.....	3,694	-----	2,060,000	-----	23,900,000	.22
1959.....	3,708	-----	1,880,000	-----	69,000,000	.61
1960.....	3,333	-----	1,320,000	-----	19,100,000	.17
1961.....	3,367	-----	1,450,000	-----	16,300,000	.14
1962: March.....	305	482	89,800	134,000	1,070,000	.11
April.....	340	537	114,000	146,000	1,130,000	.12
May.....	442	653	212,000	262,000	2,520,000	.25
June.....	436	695	151,000	311,000	3,020,000	.31
July.....	355	621	98,100	195,000	2,020,000	.21
August.....	352	617	129,000	196,000	1,940,000	.18
September.....	297	541	91,700	181,000	1,590,000	.13
October.....	261	506	98,800	155,000	1,350,000	.13
November.....	230	442	81,000	171,000	981,000	.10
December.....	133	331	45,200	146,000	1,330,000	.14
1963: January ²	230	360	75,000	185,000	2,340,000	.23
February ²	200	320	60,000	120,000	1,100,000	.12
March ²	225	350	45,000	90,000	1,110,000	.12

¹ The data include all known strikes or lockouts involving 6 or more workers and lasting a full day or shift or longer. Figures on workers involved and man-days idle cover all workers made idle for as long as 1 shift in establishments directly involved in a stoppage. They do not measure the indirect

or secondary effect on other establishments or industries whose employees are made idle as a result of material or service shortages.

² Preliminary.

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