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Standards of Wage Determination

BY PAUL BULLOCK

INSTITUTE OF INDUSTRIAL RELATIONS / UNIVERSITY OF CALIFORNIA, LOS ANGELES

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By

PAUL BULLOCK

Edited by Irving Bernstein
Drawings by Marvin Rubin

INSTITUTE OF INDUSTRIAL RELATIONS
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Foreword

THE INSTITUTE OF INDUSTRIAL RELATIONS of the University of California was created for the purpose, among others, of conducting research in industrial relations. A basic problem is to reach as large an audience as possible. Hence the Institute seeks through this series of popular pamphlets to disseminate research beyond the professional academic group. Pamphlets like this one are designed for the use of management, labor organizations, government officials, schools and universities, and the general public. Those pamphlets already published (a list appears on the preceding page) have achieved a wide distribution among these groups. The Institute research program includes, as well, a substantial number of books, monographs, and journal articles, a list of which is available to interested persons upon request.

Wage determination lies at the heart of the employment relationship in both the unionized and the unorganized firm. It is based upon criteria discussed in this pamphlet: comparisons, cost of living, ability to pay, productivity, family budgets, purchasing power, and technical and miscellaneous factors. Wage determination involves the art of balancing these often conflicting standards in order to reach a reasonable and equitable result. A surer grasp of the nature of the criteria should help to achieve this desirable goal.

The author, Paul Bullock, is an economist trained at Occidental College and the University of California, Los Angeles. He was a wage analyst with the National Wage Stabilization Board during the Korean war. Mr. Bullock is presently on the staff of the Institute of Industrial Relations, where he has worked on many industrial relations problems.

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The viewpoint expressed is that of the author and is not necessarily that of the Institute of Industrial Relations or of the University of California.

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I. Introduction

MUCH HAS BEEN WRITTEN about wage determination in recent years. The forces that influence the level of wages, in both the long and the short run, have been thoroughly explored by economists. Nor has their focus been wholly theoretical and generalized; many studies have attempted to test the realism, as well as the logic, of prevailing theories. On the basis of ever-increasing factual information about the labor market, economists have revised and reconstructed their concepts of the process by which wages, the allocation of labor among alternative jobs, and the general level of employment are determined.

The nature of wage determination, in practice, is highly complex. First, wages are frequently determined through collective bargaining, and unionism invariably introduces new complexities into the process of determination. Second, workers (and the unions that represent them) are much influenced by considerations other than purely monetary ones in their choice of jobs and wages. Third, governmental and social forces exert a powerful effect on wages, through minimum wage legislation and similar factors.

This pamphlet does not purport to analyze or criticize existing theories of wage determination, either in terms of logic or of realism. Nor does it attempt, in any way, to offer a new theory. Its purpose is only to describe the criteria used in practice by negotiators, arbitrators, and others in establishing wages, and to indicate some of their strengths and weaknesses. Though these standards are used most often in collective bargaining between an employer and a union, they are also applicable in individual bargaining. Seldom is any one standard used exclusively in wage negotiations; the final determination of wages is usually based upon some combination of them, and often the standards given widest publicity are simply "rationalizations" which have little impact on the settlement.

The following are the major standards used in the American economy at present:

1) Comparisons: This criterion fixes the wage level at a specific firm or industry on the basis of comparison with the wages established by some comparable industrial unit which sets a wage pattern.

2) Cost of living: This bases wage adjustments, to some extent, upon the increase or decrease in an acceptable price index, usually functioning automatically under a formula specified in a union contract.

3) Ability to pay: This refers to the financial condition of the employer and his consequent ability or *in*ability to pay higher wages to his employees; as such, it tends to establish a range of bargaining rather than to indicate a precise wage to be paid.

4) Productivity: This standard would evaluate wages on the basis of labor's productivity, measured in terms of output per man-hour or some other common denominator. Practical difficulties limit its immediate usefulness in wage negotiations, but its effect is felt indirectly.

5) Family budgets: This technique involves the preparation of a budget that reflects the expenditures required to maintain either a "subsistence" or an "adequate" standard of living for a typical family, and then bases the wage level on this budget.

6) Purchasing power: This is the broadest and least specific standard for wage determination, which would link the general wage level to the requirement in a mass-production economy that consumer buying power expand continuously to offset corresponding advances in productivity.

7) Technical and miscellaneous factors: These comprise a number of specific aspects of a job that necessarily influence the wage rate, including skill required, degree of hazard, regularity of employment, and scarcity of labor.

These criteria are essentially short-run, used directly or indirectly to determine the immediate wage level. Many economists would undoubtedly argue that the traditional supply-and-demand theory operates in the long run and is reflected to some degree in each of the wage standards described herein. Certainly it is undeniable that competitive pressures in both the labor and product markets can have a profound effect without ever receiving formal acknowledgment in negotiations.

The extent to which these criteria contradict or confirm the textbook theories of wage determination is a matter of controversy which need not concern us in this discussion. The wage standards cited above are those in practical use throughout American industry today, and they describe some of the methods by which wage levels are adjusted in an era of unionism and "imperfect" competition.

II. Comparisons

EASILY the most powerful and pervasive criterion for wage determination is the "comparisons" standard. In the major, and a great many minor, industries throughout the United States, a few important wage settlements set a pattern which is then followed in scores of "satellite" bargains within the bargaining area. One prominent economist, John T. Dunlop of Harvard University, suggested in 1947 that "the number of really key bargains may be placed in the neighborhood of twenty-five to fifty." Probably such "pattern bargaining" is even more prevalent now.

The industrial and geographical areas covered by specific wage patterns vary considerably. The major pressure for wage uniformity is intra-industry: a few firms, often only one, will set a pattern for a given industry, and other unionized firms in the same industry will follow suit. In many cases, however, a settlement in one industry, or a few industries, will strongly influence contract negotiations in entirely different industries or perhaps the whole economy. So pervasive are these key settlements that it is often possible to speak of a precise cents-per-hour wage pattern for an entire industry or major industrial group.

In 1955, the United Automobile Workers (UAW) obtained a three-year agreement at the Ford Motor Company which provided for supplemental unemployment benefits, more liberal pensions, improved productivity and cost-of-living allowances, better vacations and holiday pay, a seventh paid holiday, insurance improvements, and wage increases for skilled workers. Aware of its pattern-setting effect and its inevitable impact on negotiations with other companies, union president Walter Reuther paraphrased a then-popular advertising slogan: "You might say there's a Ford in General Motors' future." This prophecy came true when a substantially identical agreement was subsequently negotiated with General Motors and the major innovations were adopted in the steel and electrical industries.

As in this case, union strategy is often based on the competitive situation within the industry. Taking advantage of a lively intra-industry struggle among leading manufacturers for an increasing share of the then-buoyant automobile market, the union was able to secure gains at one company which it could use as a pattern elsewhere. In a favorable economic environment and an industry characterized by strong rivalry, the pattern-setting effect of union policy is particularly strong. No one firm wants to be shut down by a strike at a time when its major competitors are able to keep producing and perhaps to gain a bigger share of the market. And as long as each one feels that any concessions it makes to the union will be duplicated at other companies, the pressure to reach an agreement without

an interruption in production is virtually irresistible. In some industries, the employers counter this strategy by bargaining as a unit and seeking to maintain a united front.

1. TYPES OF COMPARISONS

Wage comparisons, of course, take a number of different forms. First, comparisons can be made either in terms of wage adjustments (cents-per-hour increases or decreases) or of absolute wages (rates in dollars per hour). Second, they can be based either upon jobs within a given plant, similar jobs in different plants or firms within the industry or area, or general interindustry comparisons. Third, they can involve a review of the entire wage structure in contrast with the corresponding structure elsewhere, or, more likely, a few key jobs for which rates are fixed according to both internal and external influences.

The importance of comparisons, either in terms of adjustments or of absolute wages, reflects in part the expansion of the collective bargaining area. With multiemployer bargaining and master agreements, the scope of wage agreements naturally increases. The contract arrived at between the union and the employers' association in the industry and area becomes the "standard" agreement embodying wage scales which the union then expects most firms within its jurisdiction to adopt.

Some union contracts tie their wage rates to a master agreement or key bargain, often with a specified differential, while others follow a general pattern of adjustments. One United Steelworkers' contract, for example, establishes a wage formula of $1.00 a day less than the prevailing Building and Construction Crafts' Scale, to be applied automatically on August 1 of each year. A United Mine Workers' agreement with a chemical firm provides that the starting and maximum hourly classification rates shall be increased in an amount equal in cents per hour to the increase in the average hourly earnings of production workers in all manufacturing industries, as reported by the U. S. Bureau of Labor Statistics, beginning October 1, 1956.

In some cases, the nature of the jobs and of the bargaining agreement is such that an intra-industry comparison is impractical, and the negotiators or "neutral" wage-setting bodies must look outside the industry for a pattern to follow. This is the case in the railroad industry, for instance, where bargaining is on a national scale and many of the jobs can be found only in that industry. Frederic Meyers, in his study of wage criteria adopted by government Emergency Boards, has shown that these boards "generally have made comparisons in wage trends over a period of time as between railroad wages and wages in outside industries." Lacking any realistic basis for making direct comparisons of absolute wage rates for many jobs, the "neutral" bodies have usually sought to adjust railroad wages in accordance with the general pattern of increases prevalent in major manufacturing industries.

Irving Bernstein, in his study of wage arbitration awards, has concluded that the comparisons standard, primarily on an intra-industry basis, is given more weight by arbitrators than any alternative standard. "The intraindustry comparison is more commonly cited than any other form of comparison, or, for that matter, any other criterion. More important, the weight is clearly preëminent; it leads by a wide margin in the first rankings of arbitrators. Hence there is no risk in concluding that it is of paramount importance among the wage-determining standards."

Absolute wage comparisons, whether on an intra- or inter-industry basis, often involve difficulties which prevent a complete equalization of rates. As both E. Robert Livernash and Arthur M. Ross have pointed out, a number of important factors restrict the process of comparisons: problems of evaluating job content, established internal wage relationships within the firm, differences in stability of employment and other working conditions, variance in fringe benefits, and the financial condition of the various firms. Equalization of rates for similar jobs is a goal which is achieved only imperfectly.

Rivalry among unions, for whatever reason, sometimes has an impact on their respective wage agreements. The United Steelworkers of America, for instance, may seek contract terms equal or superior to those previously secured by the United Automobile Workers. In 1955, to take one case, the steelworkers' union sharply rejected as "insulting" a steel industry proposal for wage boosts of 10 cents an hour, coming shortly after an auto industry–UAW settlement amounting to approximately 20 cents. Comparing the offer with the automobile settlement, USA president David J. McDonald fumed, "What are we—second-class citizens?"

2. WHY COMPARISONS ARE MADE

The comparisons standard has a number of virtues. First, it is simple, easily understood, and readily translatable into a wage adjustment. Second, it seems equitable, because it assures that workers in similar jobs within the same industry or bargaining area will receive similar pay. Third, employers usually find it reasonable because their competitors must pay the same wages and maintain the same working conditions, thus eliminating the threat of "sweatshop" competition.

As an explanation of the process of wage determination, however, the comparisons standard has one serious defect. It explains how wages or wage adjustments are determined in the "satellite" bargains (those that follow the wage leader), but neglects to indicate how wages are fixed in the key bargain which initiates the whole process. Obviously one union or one firm must take the lead, and there is no "comparison" to guide them. For an explanation of the initial bargaining, we must look elsewhere: to cost of living, ability to pay, productivity, and other criteria discussed in later chapters.

Clearly the bargaining process varies from union to union and from firm to firm, and even within a given firm and union it may differ substantially from one negotiating session to the next. Its general form, however, is almost invariable. Long before the expiration of the contract, the union will prepare a set of demands for presentation to the employer. These demands will probably include a number of proposals which the union may not seriously intend to achieve, but which are considered "expendable" for bargaining purposes. Much of the negotiating process takes the form of a ritual: the union opens the discussion by announcing a series of demands that are deliberately excessive, and the employer ordinarily retorts by stating his low opinion of the union's demands. He usually emphasizes the exorbitant cost of the union proposals, and announces a counterproposal that represents "the most that can be offered" in the light of the economic situation and consistent with "fair treatment" of management, workers, investors, and consumers. The employer, too, holds something in reserve, reducing his initial offer below the level that he actually is prepared to accept in negotiations.

When entering negotiations, the union must take into consideration all the conditions described subsequently: the economic prospects for the economy as a whole, for the industry, and especially for the particular employer; the cost of living; technological innovation and increase in productivity; the existing standard of living of the workers involved; and various technical factors relating to specific jobs in the plant. Above all, the effective union leader must be able to interpret the needs and desires of the members and to distribute gains so as to satisfy as many as possible. This may be a tough decision to make, for a given increase in labor cost can take the form of a straight wage raise, fringe benefits such as vacations and holidays, paid medical insurance, pensions, supplemental unemployment benefits, or numerous other forms. Older workers may be primarily interested in pensions, younger workers in higher wages.

Use of comparisons can greatly simplify the task of the negotiators. Workers are strongly influenced by a comparison of their wages and benefits with those obtained by employees in other firms or industries. Even when the existing wage level differs from one firm to another, union members may focus attention on the size of the adjustment negotiated elsewhere and seek to achieve uniformity in wage changes if not in the wage itself. The ultimate goal of most unions, however, is a high degree of absolute wage uniformity within the bargaining area, with the less favorable contracts eventually raised to a level of comparability with the more favorable. The strongest pressure is in the direction of wage equalization, for both economic and social factors influence workers to press for wages equal to the best wages obtained by others with whom they ordinarily compare. Sometimes, of course, the union will make concessions to weak employers in order to conserve its members' jobs.

The tendency is for certain wage and fringe settlements to spread, not only within the specific industry but throughout several industries. In 1948, for example, General Motors and the United Automobile Workers negotiated a cost-of-living "escalator" clause and an "annual improvement factor" (both discussed later) in their contract. Similar provisions are now prevalent not merely throughout the automobile industry but also in steel, electrical manufacturing, and other industries. In industries where strong rival unions exist, for example, the independent United Electrical Workers and the AFL-CIO International Union of Electrical Workers and International Brotherhood of Electrical Workers, there is irresistible pressure upon each union to secure gains at least as impressive as those obtained by its rivals.

3. THE KEY BARGAINS

Usually a pattern-setting agreement, which we have called a key bargain, will start this chain of wage increases. In the negotiations leading to the settlement, the public may be treated to a "sham battle" as each side makes exaggerated claims and demands for bargaining purposes. Often the issue that receives most public attention plays little or no part in the final bargain; in the automobile industry, for instance, a much-disputed union proposal for profit sharing aroused bitter controversy in 1958, only to vanish completely when serious bargaining began. Both in 1954–55 and in 1957–58 a thirty-hour-week demand was given prominent status in early discussions by auto union leaders, but in each case it was abortive. This demand, however, obviously represents a widely held sentiment among union members and leaders, and probably will recur in future negotiations.

Unique demands of this nature often arise when a union is pioneering in a relatively unexplored area, striving to satisfy the one established and accepted (from labor's viewpoint) criterion for wage determination:

Samuel Gompers' famous goal of "more." From a practical standpoint, each negotiation should produce some gain for the workers (except in a general depression or in a severely depressed industry); if it does not, the union may find itself in difficulty with its membership.

As we have seen, the task of the union negotiator is relatively simple when he has a "pattern" to guide him. If the firm suffers no unusual hardships financially, any dispute in negotiations is likely to center on the reasonably uncomplicated question of what is the most appropriate comparison to make—intra-industry, interindustry, intra-area, and so on. Lacking any such guide, the negotiator in the key bargain must improvise. In recent years, the tendency has been to put relatively less emphasis on straight wage increases and to concentrate more on fringes, health plans, unemployment benefits, pensions, and similar items. Perhaps the leading postwar pioneer in this area has been John L. Lewis of the United Mine Workers, who in 1946 negotiated a miners' pension and welfare fund to which the coal operators were required to contribute. Pension and health plans are now a feature of most major contracts in the United States. Other unions that frequently experiment in unfamiliar areas of bargaining and contract administration are the United Automobile Workers, Amalgamated Clothing Workers, International Ladies' Garment Workers Union, United Steelworkers of America, and to some extent the United Rubber Workers and the various electrical unions. Partly as a result of personal leadership, but largely because of their strategic position in their respective industries and in the entire American economy, these unions often establish a bargaining pattern that influences the structure of wages and of industrial relations generally throughout the country.

Nor does this exhaust the list of "pattern setters" in collective bargaining. Most of the above unions are characterized by strongly centralized bargaining, with the basic pattern established by the International officers. There are many local or regional unions, however, that exert an equally powerful influence upon bargaining trends in their respective areas. The Teamsters union, as one example, is highly decentralized in its negotiations, and in communities such as St. Louis its locals will sometimes experiment with pattern-setting agreements, often centering upon unique health and welfare plans or other nonwage benefits. Other unions that have exerted a measurable regional influence in the past are the International Longshoremen's and Warehousemen's Union on the west coast and in Hawaii, Retail Clerks Local 770 in Los Angeles, and the Lumber and Sawmill Workers and the Woodworkers in the Pacific Northwest.

4. LIMITATIONS OF THE COMPARISONS STANDARD

Wage negotiations in the United States can thus be roughly classified into two categories: pattern-setters and pattern-followers. In various segments of the economy a relatively few negotiators may lead the way, and the others follow more or less passively. In such cases the comparisons standard tends to equalize wages and remove labor from competition.

This tendency, however, should not be overemphasized. The equalization process is imperfect, and in a time of labor surplus, as in a depression, lower wages in unorganized firms will threaten the higher wages established under union contracts. Conversely, in a time of labor scarcity, wages in plants on the periphery of the bargaining area, mainly for skilled trades, may rise above those established in the major contracts, and may in fact threaten the stability of the wage and employment pattern in the industry. The relatively high rates paid to skilled workers in the "job" or "custom" shops (plants devoted mainly to work of a more complex and technically demanding nature than in the "production" shops) created a major problem for wage stabilization, especially in the aircraft industry, during World War II and the Korean war.

In recent years much dissatisfaction has been expressed by skilled craftsmen in the auto industry as a consequence of allegedly higher wages paid to high-skill workers in smaller shops and the narrowing differentials between their own wages and those paid to unskilled or semiskilled employees within the unionized plants. As a result of this feeling, the UAW has been forced to grant its skilled members special bargaining rights, allowing them direct representation on strategy committees and authorizing them to make supplemental agreements dealing with their unique problems. Small groups of skilled workers in this industry have sought to win representation rights away from the UAW. In 1957, their spokesman claimed that skilled employees could make \$3.25 an hour in "job" shops whereas the then-prevailing average in auto plants was $2.85 for comparable jobs. In February, 1958, delegates to the UAW skilled trades conference voted down a resolution calling for a minimum wage of $3.25 only after union official Leonard Woodcock had pleaded for support of Walter Reuther's "noninflationary" wage program.

Wage equalization may thus be weakened in practice if unionization is less than 100 per cent effective within the competitive labor market. Economic studies indicate that wage equalization and degree of unionization usually proceed together. As long as any important part of the labor market remains unorganized, union wage rates can be threatened either by lower (with labor surplus) or by higher (with labor scarcity) nonunion rates.

In some circumstances, differentials among firms or industries may persist for a long time. Employees and their unions may be content merely to preserve a long-standing historical differential between their wages and those paid in some other bargaining unit with which they ordinarily compare. Their objective will be to match any wage increases obtained by employees in the comparable firm or industry.

In several public jurisdictions of California, for example, wage rates for construction and maintenance workers are fixed on the basis of the rates established in the contract between the Associated General Contractors and the construction trades unions, with an established differential *below* the contract rates to allow for superior fringe benefits allegedly enjoyed by public employees.

On the other hand, the policy of the union may be to eliminate, over a period of time, a long-standing differential. For many decades, workers in southern bituminous coal mines received lower wages than their counterparts in the North. Following complete organization of the industry, the differential was narrowed until it was effectively eliminated a few years ago. Unions have also established practical uniformity of North-South rates for comparable jobs in the automobile, railroad, glass, paper, seamless hosiery, and other industries. In several industries, such as textiles, southern wage rates remain lower.

The effect of unionism on wage differentials among industries and areas is displeasing to many economists. Differentials, they may argue, serve the function of distributing labor among occupations or industries in accordance with need and productivity. Some theories suggest that the unimpeded movement of workers from one job to another, in response to short-run differentials in wage rates, will lead to eventual long-run equalization of rates, with the labor supply increasing for the higher-wage jobs and diminishing for the lower-wage. If the comparisons standard under collective bargaining makes wages uniform for comparable jobs within an industry and among different industries, wage differentials can no longer serve their valuable economic function.

Recent studies cast doubt on the realism of such theories. Further, the high degree of wage flexibility and labor mobility here envisaged could not be readily accepted by unions. Equalization of rates achieved by movement of workers from one job to another, and from one industry to another, is precisely what most unions strongly oppose. Union leaders tend to regard this "competitive" method of wage determination and labor allocation as both socially undesirable and unrealistic, based on assumptions about the nature of the labor market that have little relation to the facts. They favor wage equalization, but only under collective bargaining.

5. SUMMARY

The comparisons standard, in summary, has a doubly dynamic impact: it raises the wages of workers in the "lag" group to the level attained by workers in the pattern-setting group, but concurrently creates a pressure for even higher wages in the latter. Wage movements are thus influenced by two conflicting ambitions: the ambition of workers on the lower end of an existing interunion or interplant differential to "catch up," and the ambition of workers on the upper end to maintain their superiority. "Keeping up with the Joneses," and "keeping ahead of the Joneses," may have an important effect upon wage determination in the United States.

III. Cost of Living

ONE OF THE MOST commonly used standards of wage determination is "cost of living." At the beginning of 1959, 4 million workers under union agreements were covered by automatic cost-of-living clauses, representing about 80 per cent of major long-term contracts outside the construction industry. According to the Bureau of Labor Statistics, the most common adjustment under these clauses is a 1-cent-an-hour change in wage rates for each 0.5-point change in the Consumer Price Index (the national BLS figure) or 2 cents for each 0.9-point change. Some agreements provide for percentage wage adjustments matching a percentage change in the CPI.

1. WHAT A COST-OF-LIVING CLAUSE PROVIDES

A reasonably typical clause was negotiated by the General Motors Corporation and the United Automobile Workers in 1955, basing wage adjustments on changes in the national index. This provision called for adjustments at quarterly intervals, starting with the first pay period beginning on or after June 1, 1955. The initial change was to be based on the BLS index as of April 15, 1955, and subsequent calculations were to be derived similarly. The formula was a 1-cent-an-hour adjustment for every 0.5-point change in the index; in no event, however, would a decline in the index below 110.9 become the basis for wage reductions.

Under this formula, the cost-of-living allowance increased from 6 cents per hour as of June 1, 1955, to 22 cents as of March 1, 1958. As an example of how the clause operates, the Consumer Price Index rose from 120.8 as of July 15, 1957, to 122.3 as of January 15, 1958, an increase of exactly 1.5 points. This became the basis for a 3-cent wage raise (1 cent for each half-point rise). Such allowances are included in computing overtime premiums, vacation and holiday payments, call-in pay, and night shift premiums.

The BLS index measures price changes for a selected group of goods and services (food, medical care, apparel, transportation, housing, and other commodities and services) purchased by urban families of wage earners and clerical workers in forty-six cities. The items priced are selected and weighted on the basis of a study of family expenditures. Such an index, with a base period (100) of 1947–49, is published monthly for the United States as a whole and for each of twenty large cities. Most cost-of-living "escalator" clauses use the national index, though a few are based on local indexes.

Such clauses determine, in part, adjustments in existing wages rather than the base wage itself. In principle this provision serves to protect the worker against the inroads of inflation upon his "real" income (the purchasing power of his money wages). Virtually all such clauses provide a "floor" below which wage rates will not be permitted to fall, regardless of how far prices may sink. The employee under this contract is thus guaranteed an income that will not be significantly affected by changes in the price of items he buys.

2. EXTENT AND POPULARITY

The BLS finds that practically every major industry group (except construction, trade, and nonferrous metals) had cost-of-living escalators in 1957, in some degree. Such provisions are widespread in the auto, aircraft, steel, railroad, meat-packing, and electrical equipment industries, plus many others. Most of them require quarterly adjustments, though some are semiannual or annual. A few call for adjustments when the cost-of-living index changes by a specified amount, rather than at particular intervals.

Until recent years many unions were hostile to automatic escalator clauses, regarding them as devices which "froze" wages to a single standard and created a danger of wage reductions in a period of falling prices. Also, it is probable that some union leaders feared the effect of such provisions in deëmphasizing the role of the union in securing wage increases for its members. During the recent inflationary boom, however, the resistance of unions has largely turned into wide-scale acceptance of cost-of-living escalators. With a growing emphasis on long-term contracts, and the formulation of provisions for a "floor" below wages, unions have abandoned their earlier objections and have shifted to support. Of course, the cost-of-living adjustment is considered a supplement to, not a substitute for, wage increases on other grounds.

The rising price level during the Korean war and post-war period has resulted in many wage increases under escalator clauses. In June, 1958, for example, approximately 500,000 union workers received cost-of-living adjustments based on the BLS Consumer Price Index for April. The important contracts use the national index as a basis for their escalator clauses. Obviously there is considerable price variation among the major cities; the rise in the cost of living in Chicago and San Francisco, for instance, has been substantially above the national average, while the rise in New York and Washington, D.C., has been below. Thus the escalator adjustments will seldom reflect the precise change in prices in the area in which the workers reside.

Because the wage adjustments are based upon *past* changes in the price index, there is an inevitable lag between price and wage movements, with wages following prices in their climb. Unions are also quick to emphasize that these tardy increases merely help maintain the existing "real" income of the worker, and make no allowance for a gain in his standard of living.

Whether, in fact, the cost-of-living escalator is economically desirable remains a matter of controversy among economists. Some tend to regard it as another contributor to the inflationary spiral, giving rise to an unending upward chase between wages and prices. Other economists are more optimistic, arguing that the important inflationary pressures are generated elsewhere in the economy and that wage escalation helps to mitigate the the impact of rising prices upon purchasing power. Many consider the escalators both as cause and as effect of inflation.

Unions, employers, and arbitrators, on those occasions when they are required to decide on the issue, seldom have qualms about establishing wage escalation. From their viewpoint, it has the twin virtues of equity and simplicity. It seems fair to give the employee some protection against rising prices; the formula is relatively easy to work out and apply; its automaticity eliminates the necessity for recurrent bargaining. As long as inflation remains a serious problem, interest in these clauses will undoubtedly grow. But neither side regards the cost of living as a central determinant of wages; wage bargaining remains focused on other issues. Unions regard such increases only as a minimum required to preserve the existing purchasing power of wages, as a base from which to launch a campaign for greater expansion in labor's standard of living.

Indeed, unions are occasionally inclined to argue that even the escalator clause does not afford adequate protection to present living standards. The Consumer Price Index, they have sometimes alleged, does not measure the effect of quality deterioration in goods and services or higher income taxation upon the worker. In a time of acute shortages, such as in wartime, the index may not fully reflect the unofficial or "black market" prices which must in fact be paid in order to obtain goods.

There are occasional charges, less frequent now than in the past, that insufficient weight is given to many items of expenditure which have become an important part of the worker's standard of living. Though bitter controversy raged over the adequacy of the BLS cost-of-living figure in the World War II period, most negotiators are now prepared to accept it as a reasonable approximation to the statistical truth.

3. ECONOMIC EFFECTS

The precise economic impact of cost-of-living increases is difficult to measure. Union leaders regard with enthusiasm, and some economists with disapproval, the unquestioned fact that escalator clauses narrow the time gap between price and wage increases in an inflationary period. In past times, when wage increases were negotiated only at specific intervals (usually annually), there was often a substantial lag. Now the escalator automatically adjusts wages to a given change in the price level at much more frequent intervals. The regular negotiating session, whether it be every year, every two years, or less frequent, will then concentrate on other issues. The net effect of this may be to accelerate still further the pressure for wage increases in a period of rising prices and expanding production. Whereas cost-of-living increases were formerly an important part of the "package" demands which the union brought to the bargaining table, now such increases are automatic and other requests must take their place as leverage.

The effect of such increases upon the internal wage structure will be to narrow the percentage differentials between high-paid and low-paid jobs, if the adjustment takes the form of an "across the board" cents-per-hour raise. A straight 2-cents-per-hour raise for everyone in the plant, for instance, represents a 2 per cent boost for workers receiving $1.00 an hour, but only 1 per cent for those earning $2.00.

Together with other types of cents-per-hour increases (such as the "annual improvement factor," to be discussed later), the cost-of-living escalator thus permits the unskilled and semiskilled workers to gain percentage-wise on the skilled, a fact that sometimes causes annoyance among the latter. If the adjustment is in percentage terms, the existing relative differentials remain unchanged and the absolute differentials in dollars and cents widen, which may not please the lower-wage groups. Aside from the resulting economic problems that may arise within the plant, the widening or narrowing of differentials may provoke a severe internal political problem for the union, as, for example, it now does in the automobile industry.

Industrial unionism, which represents organization by industry rather than by craft, has often emphasized straight cents-per-hour increases for all workers in the bargaining unit, though there are several exceptions and also some indications that the policy may be modified or reversed in the future. In the auto industry negotiations of 1950, 1953, 1955, and 1958, the union sought and secured wage adjustments for specific groups of skilled workers. In recent periods of labor shortage, particularly in wartime, the special demands of skilled trades have received increasing attention.

As for the eternal debate over whether wage increases have kept pace either with rising prices or with rising productivity, the answer remains obscured in a statistical fog. With significant year-to-year variation in prices, wages, and productivity, the relationship depends entirely upon the base date chosen for purposes of comparison. Unions choose base and terminal years that accentuate the rise in prices or productivity relative to wages; management groups, of course, do the reverse. The problem centers around the definition of a "normal" period, concerning which there is always room for legitimate disagreement. In the post-World War II period, all three variables have tended to rise substantially, but the relationship differs almost yearly.

The effect of cost-of-living clauses on wages in a period of falling prices remains uncertain. Since the negotiated escalator provisions generally permit no reduction in wages below the level in existence at the time the escalator was established, clearly the deflationary impact is more restricted than the inflationary. Further, it is likely that unions will attempt to modify or abandon such provisions if the prospect of declining prices confronts the economy.

Essentially the escalator is a phenomenon of inflation; its practical function is to justify wage increases rather than decreases. If a price decline signals a general economic deterioration, undoubtedly the ability of unions to secure higher wages will be severely curtailed, and a genuine crisis would probably require some wage reductions. But the resistance of unions to wage cuts is strong, and the argument that falling prices justify falling wages would be exceedingly unpopular, whether regarded from a pragmatic or from an ethical viewpoint.

It is difficult to classify the recent American economy in terms of a generally consistent movement upward or downward. A rise in unemployment (normally a deflationary symptom) may accompany an increase in the price level (inflationary). A sharp drop in consumer demand often has little or no effect on the prices of goods, which may in fact be boosted. Inflationary and deflationary tendencies therefore may at times exist side by side, and the trend in the price index may have a different direction from those forces operating elsewhere in the economy. To tie wages to a cost-of-living escalator thus has its dangers; just as a general price rise need not herald a broad expansion in the economy, it is conceivable that a decline may be entirely unrepresentative of the fundamental employment situation. The escalator may cause wages to drop, for example, at a time when employment is rapidly expanding and labor is relatively scarce. Undoubtedly the union would be prepared to press for higher wages whenever the contract is open for negotiation, but in an era of long-term contracts this opportunity may not come for a rather long while. In this case, the escalator (to mix metaphors) could turn out to be a two-edged sword.

There is, in short, no necessary short-run relation between general price movements and the condition of the labor market. A union with a long-term contract and an escalator clause always faces the possibility that wage reductions will occur in response to a downward price trend at a time when other unions are obtaining increases, or that the automatic wage boosts in a period of inflation will be less than those voluntarily granted by competitive firms in response to labor scarcity.

Many unions seek to protect themselves in this regard by supplementing the cost-of-living escalator with wage-boosting devices such as the "annual improvement factor" and various deferred adjustments, with wage reopening clauses which would permit interim increases if labor market conditions so require, and sometimes with agreements "freezing" a part of the cost-of-living allowance into base rates. Nevertheless, it is problematical whether a long-term escalator clause accelerates or restrains upward wage movements in a period of labor scarcity. If prices and employment move in opposite directions, with prices dipping and demand for labor sharply rising, the pressure to abandon escalator clauses would probably become irresistible.

4. SUMMARY

The cost-of-living standard remains popular in time of relative inflation, but will undoubtedly lose much of its allure in a period of declining prices. It is less a criterion for wage determination than an acceptable excuse for wage boosts. As such, its equity is widely accepted (though some economists may disparage its economic effects) and its practicality demonstrated in scores of contracts. But the union is necessarily a bargaining institution, which must justify itself to the membership on its record in negotiations with the employer. Paradoxically, while the union may be responsible for obtaining the cost-of-living escalator, the regularity and automaticity of the wage increases provided therein may deemphasize the subsequent role of the union in the eyes of its members. The union is therefore compelled to develop new bases for wage raises, partly as a matter of survival, and cost of living as a wage determinant again recedes into the background, giving way to alternative demands.

IV. Ability to Pay

THE SLOGAN "ability to pay," or oftentimes "*in*ability to pay," is really a catchall for the various competitive forces that influence the process of wage determination. Whether or not the financial condition of the employer is an immediate or direct issue in negotiations, the economic status (present and future) of the business or industry remains an important consideration for both parties. While it seldom determines the precise wage adjustment to be made, it usually sets the range within which bargaining occurs.

This issue moved into the national spotlight in late 1945 and early 1946, when the United Automobile Workers conducted a lengthy strike against General Motors. Union official Walter Reuther publicly asked the corporation to "open its books" and show its complete profit figures, and offered to modify the wage demands if GM could disprove the UAW claim that wages could be raised without a price increase. The demand for a 30 per cent wage boost was based on three factors: (1) Take-home pay had been reduced because of peacetime cutbacks in hours. (2) The cost of living had risen since the last wage adjustment. (3) "The profit and reserve position of General Motors Corporation provides ample margin for absorption of this adjustment, without necessitating any price increase."

This third point proved to be the most controversial element in the bitterly fought dispute, though it probably had the least influence on the final settlement. It served, however, to focus attention on the problem of what criteria are to be used in determining wages. The GM management rejected the argument that profits and prices were properly a concern of the union, and specifically that high profits justify higher wages. In a series of advertisements, GM made the point that the use of "ability to pay" as a justification for wage increases was comparable to a merchant's charging higher prices to customers with savings accounts.

Unions, in turn, chide management for often pleading financial incapacity to pay higher wages while refusing to acknowledge a corresponding ability to pay when profits are good. Here perhaps lies the major practical difficulty with the ability-to-pay criterion: it works both ways. Profits vary from year to year, and neither labor nor management would be satisfied with a wage level that constantly fluctuated up and down according to the immediate profit situation. In most cases the ability-to-pay argument is a rationalization for wage proposals advanced for other reasons rather than a primary basis for determination of wages.

1. PROBLEMS IN APPLICATION

One major defect in the ability-to-pay standard is the frequent inability of labor and management to interpret the relevant financial information and apply it to the problem of determining wages. Financial statements and balance sheets are usually complex. Even where there is agreement on the correctness and adequacy of the data on profits, reserves, total labor costs, and the like, there may be little accord on their meaning and application for purposes of wage determination. What, for example, is the proper and necessary proportion of business income that should go to the owners (in the case of a corporation, the stockholders)? What provisions should be made for reserves? How much should be reinvested in new plant and equipment?

The measurement of profits raises, of course, many of the same problems involved in the measurement of wages. Profits can be measured in a number of ways: either before or after taxes, as a percentage of the sales dollar, as a percentage of "net worth" (total investment in the company), and other ways. Unions normally prefer the "percentage return on net worth" measurement, because in an inflationary period this emphasizes most strongly the rising level of profits. They also focus major attention on the "before taxes" profit figure, arguing that this is the figure that any additional labor costs would affect.

Management, in response, argues that the return on capital invested in the business must be allowed to rise, particularly during inflation, if sufficient funds are to be attracted for improvements necessary to success. With rising costs of new machinery and replacements, profits must increase to supplement inadequate depreciation allowances and provide resources for expansion. It is unfair, it claims, to distribute the increased profits entirely to labor, leaving little or nothing for those who supply

the capital or the managerial skill needed in the business. Management regards wages and other employee benefits primarily from the "cost" side, stressing their profit-reducing effect; labor regards them from the "income" side, emphasizing their contribution to consumer purchasing power and an expanding market.

2. ABILITY TO PAY AS A LIMITING FACTOR

These generalized arguments seldom have much direct impact on the process of wage determination, which usually is centered on more mundane issues such as comparisons, cost of living, intraplant inequities, and changes in job content. Nevertheless, the general economic context in which bargaining occurs largely defines the limits of the wage adjustment. When the demand for the company's product is active, when labor is relatively scarce, and when prices can be boosted without any significant reduction in buying, obviously the range of wage bargaining will be comparatively wide. The wage increase demanded by labor is likely to be substantial, and the final settlement, though usually below the figure asked, will probably represent a marked advance in the wage or benefit level. When general economic conditions are unfavorable, the reverse is true, and the ultimate wage adjustment, if any, is likely to be modest.

A good illustration of this may be found in the automobile industry negotiations of 1955 and 1958. The year 1955 saw the highest production of autos in the entire history of the industry, with inventories at an exceptionally low level. Under the pressure of expanding sales, the companies granted to the union one of the biggest "packages" of economic benefits ever achieved, amounting to more than 20 cents per hour. In the context of strong consumer demand, the industry absorbed the major innovation of supplemental unemployment benefits without undue disturbance, profits remained high, and the economy was not subjected to the strain of a prolonged strike.

The 1958 negotiations proved to be the exact reverse. Here the bargaining was conducted in an atmosphere of general economic gloom, and from a union viewpoint the results were relatively meager. Starting out with a list of ambitious demands (including a shorter workweek; substantial wage boosts; improvements in SUB, pensions, and health plans; and other benefits), the United Automobile Workers obtained a comparatively modest settlement. Several of its major demands had been ignored. The recession which struck in the fall of 1957 and lasted throughout most of 1958 had undermined the union's bargaining strength. With dealer inventories ranging up to 900,000 cars during the negotiations, plus severe unemployment in the industry, the economic context in which the bargaining took place was decidedly unfavorable to the union's position.

Forces in the labor and product markets had combined to restrain wage increases, and the rising use and efficiency of automatic machinery had led to a growing unemployment problem in the industry. Obviously these short- and long-term forces set rather narrow limits for the wage bargaining.

3. CASES OF FINANCIAL HARDSHIP

At times, a given company will plead acute financial hardship, and in such cases the union must decide what weight is to be given to this plea. The position taken by unions varies in these circumstances, though in principle they are reluctant to modify or withdraw wage demands at a specific firm when substantially the same demands are being presented to other firms in the same industry or area. The weight given to wage patterns and comparisons, as described earlier, makes it difficult for a union to accept wages at one firm that are markedly lower than those paid at competitive firms. Much will depend on the permanence of the wage differential; if the financial difficulties appear temporary, the union may accept an inferior wage level on the understanding that an upward adjustment will be made as soon as normal conditions return. But on both ethical and practical grounds, unions generally oppose such concessions on a long-run basis.

In certain industries, however, the ability-to-pay factor is of such overriding importance that it may dominate union strategy. Charles A. Myers and George P. Shultz, in their study of depressed industries in New England, cite a union business agent who remarked about an employer in serious financial difficulties: "You can't push that guy anywhere except out of business." In these industries, the workers tend to be so concerned about job security and the menace of unemployment that the issue of higher wages is much less important to them than it is elsewhere. This, naturally, diminishes their militancy. As one union leader stated, "The people are just not ready to fight, that's all."

When confronted with the financial-hardship argu-


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ment, unions often raise a number of specific questions:

1) What is the proportion of labor cost to total cost, and to what extent would a lower wage level improve the competitive or general economic position of the firm?

2) Is an inferior wage scale the best way to meet the problem, or, as an alternative, would it be preferable to concentrate on improving managerial organization and technical efficiency?

3) If the hardship seems permanent, it is worth while to concede a relatively depressed scale in the interest of saving the workers' jobs, or is it more desirable in the long run to insist that the company either pay the prevailing union wage or withdraw from business?

4) Will acceptance of inferior wages at one company unduly impair the competitive position of other unionized firms which pay higher wages, or create difficulties in negotiations elsewhere in the industry or area?

5) Have past relations with the company been satisfactory, and have union wage demands been received without excessive resistance in times when economic conditions permitted increases? (In 1954, Studebaker employees at its South Bend plant voted to accept wage reductions in order to bring wages into line with competitive companies and help the company weather a financial storm, largely on the basis of the traditionally friendly relations between union and management.)

6) Does the company's financial statement accurately reflect its economic condition, and is management willing to provide records substantiating its claim of hardship?

This last question may raise a number of complex accounting problems, for negotiators usually lack the training and economic sophistication needed for the proper interpretation of accounting data. Profit figures may be significantly affected by the use of a particular method of inventory valuation, depreciation of equipment, and reserves of various kinds. Unions prefer to avoid a discussion of accounting techniques, concentrating on other issues and leaving to management the problem of finding a way to meet the wage increase and still make a profit. In an expanding and dynamic market, this problem will seldom arise in negotiations, as the common expectation is that prices can be raised to offset any wage increase without causing a significant drop in demand.

4. PRACTICAL ECONOMIC EFFECTS

Economists debate to what extent unions can or should consider the price and employment effects of their wage policies. The labor leader who consciously introduces this consideration into negotiations may, however, find himself in a curious dilemma. On the one side, he is subject to criticism from more "orthodox" union leaders who regard such questions as irrelevant and excessively theoretical. On the other side, management is often inclined to condemn their introduction as an invasion of managerial prerogatives and an unwarranted interference in matters that are not the proper concern of the union.

When UAW president Reuther proposed in mid-1957 that the auto companies cut the prices of new models by an average of $100 per car, and offered to frame union demands in the light of such reductions (perhaps a public relations gambit), Harlow Curtice of GM responded that his company had no intention of bargaining with the union over the prices of its cars. All companies accused the union of responsibility for high prices.

In such a situation, the union is in a kind of "no man's land," chided by many economists and businessmen for allegedly causing inflation while at the same time firmly reminded in negotiations that the employer's price policies are none of its concern. While an occasional public relations gesture is made, the inclination of most union leaders is to ignore the whole issue and concentrate on the immediate wage problem.

Even when both parties are agreed that prices, profits, and productivity are proper subjects for mutual discussion and bargaining, it remains difficult to translate an overall profit figure into wage rates. First, the financial statement merely reflects a condition that prevailed sometime in the past, whereas negotiations are centered around wage adjustments to be applied in the future. The negotiators, therefore, cannot simply split an existing profit "pie" but must speculate about the predicted level of profits in the future and its possible relationship to wages. Second, if and when agreement is reached on the predicted total, the problem arises as to how this is to be divided among the various recipients within the firm. The mere existence of a profit total offers no answer to such complex questions as whether the wage adjustment should be "across the board," whether it should be in percentage or absolute terms, whether an agreed-upon increase in labor costs should go primarily into wages or into fringe benefits like pensions and paid vacations, and similar problems. Further, it might well be argued that the share of dividends, reserves for improved equipment, and other nonlabor elements in corporate income should be increased.

The ability-to-pay criterion thus may raise more problems than it solves. As a precise determinant of the wage level in a specific firm or industry, its usefulness is severely limited. For one thing, it runs counter to a strong tendency toward relative uniformity of wage adjustments among firms in the same labor market area. If each firm's financial condition were given substantial weight in determining the wage level, adjustments would vary considerably among workers performing essentially the same jobs within a given market area. The goal of unionism, however, is to equalize wage demands to the fullest extent possible, thereby emphasizing a high degree of uniformity in wages, particularly in union contracts within a given industry and geographical region.

Also, it is a clumsy tool for collective bargaining, lacking the simplicity of the comparisons or cost-of-living standards. Even where the facts are available, interpretations differ sharply. It does not readily suggest the size or nature of a wage adjustment, and even in those rare cases where union and management can agree, they may find it difficult to justify their agreement to the employees. Where a specific wage adjustment is based on a comparison with similar settlements under comparable contracts, the basis for the adjustment can be readily understood by the workers involved. But the reasoning behind any wage change influenced by the ability-to-pay criterion is usually complex and often controversial. In the circumstance that this criterion justifies an increase greater than the amount justified on other grounds, obviously no problem of acceptability will arise. But in the somewhat more likely circumstance that the criterion is used to reduce or modify a wage settlement that would otherwise be justified, there may be considerable resistance to ratification.

5. SUMMARY

For these reasons, the employer's immediate profit condition is not usually made an explicit factor in negotiations. Nevertheless, it has a substantial indirect bearing on the wage settlement, and the negotiators are well aware of its presence in the background even though they may not formally acknowledge it. When economic prospects are favorable and the market is strong, employer resistance to wage increases will tend to be relatively weak. On the other hand, when business activity slows down, the union may find it difficult to obtain its demands.

Without arguing over specific accounting or financial problems, the negotiators are generally cognizant of the market situation, and their respective estimates of its prospects will serve to guide them in reaching a settlement. Unfortunately, only the very large unions can afford economic research departments of a size and quality required to provide reliable data on the economics of the firm and industry; smaller unions often must rely upon personal judgment or guesswork, plus whatever general information can be supplied by the AFL-CIO staff. A greater abundance of economic and statistical data, on both sides, would hardly eliminate conflict, but it might introduce much more realism into the bargaining.

V. Productivity

THE WAGE STANDARD most acceptable to many economic theorists would perhaps be "productivity." In some economic theory, wages tend to measure the productivity of labor, or, more specifically, the amount added by workers to the value of the product made. Although imperfections in the product or labor market may weaken this relationship at times, such economists may argue that in the long run wages cannot diverge significantly from productivity without causing either inflation or unemployment.

Whether or not there is a close long-run relationship between wages and productivity, and whether or not some kind of productivity standard is the wisest basis for wage determination, are matters of controversy. In practice, the difficulties inherent in measuring productivity and translating it into specific wage rates limit the usefulness of this criterion in wage negotiations.

There are, for example, many alternative definitions of "productivity." As a general term, it refers to the efficiency of a given input or combination of inputs—labor, raw materials, equipment, management, or other—in terms of the output produced. More specifically, it might refer to a number of different measures: the physical output per unit of labor (usually per man-hour of work), output per worker, output per man-hour of production workers only, or any of these standards expressed in terms of value rather than physical units. When a value-of-product measurement is used, the market value of output is adjusted for price changes, so that an increase in the man-hour average production does not merely reflect a rising price level. The most common measure of productivity is output per man-hour, expressed either in physical or in value terms. Productivity estimates vary widely from one industry to another, and reliable figures are often unavailable.

Largely as a result of these difficulties, the productivity standard has been mainly used either on a very broad or on a very narrow basis. Some contract provisions, notably in the GM-UAW agreement, base the "productivity" wage increases on a rough average of the annual national growth in man-hour output. The basis of measurement is often obscure, but usually it is taken to be the output of production workers in manufacturing. An older and more familiar technique is to link the worker's income directly to his own production, or to that of a specific group in which he works (piecework or incentive pay plans).

1. "PRODUCTIVITY" WAGE CLAUSES

In 1948, General Motors and the United Automobile Workers pioneered in the area of "productivity" wages by inserting in their contract a clause providing for an "annual improvement factor," or annual wage increases based on an estimated long-term rise in productive efficiency. The original GM agreement increased wages 3 cents per hour on this basis, amounting to about 2 per cent of average wages, and the amount has been raised at various times since then: to 4 cents per hour in 1950, 5 cents in 1953, and in 1955 a percentage basis of 2.5 per cent a year with a 6-cent minimum (still in effect under the current contract). From May, 1948, to the spring of 1958, increases under this clause totaled 46 cents an hour. Of course, there have been many additional wage increases on other bases, such as cost of living, intraplant inequities, and similar factors.

The GM formula is based on the premise that workers should be allowed to share in the gains resulting from technological advance throughout the country. According to former GM president Charles Wilson, the specific figure used reflects an average long-run rise in real output per man-hour for manufacturing. The contract justifies such productivity wage increases in these terms:

> The annual improvement factor provided herein recognizes that a continuing improvement in the standard of living of employees depends upon technological progress, better tools, methods, processes and equipment, and a cooperative attitude on the part of all parties in such progress. It further recognizes the principle that to produce more with the same amount of human effort is a sound economic and social objective.

No attempt is made in this plan, or any others patterned after it, to measure productivity in the specific plant, corporation, or industry. In practice, the annual improvement factor is simply a collective bargaining device to assure fixed yearly increases in wages which are acceptable to both labor and management and thus do not require time-consuming negotiation. In theory, the plan is designed to link wages and purchasing power, at least in part, to the long-run expansion in the productive capacity of the American economy.

Productivity wage clauses invariably assume that output will go up. But there are alternative assumptions of equal reasonableness, some of which deserve consideration. Output, obviously, does not advance equally in all sectors of the economy, and in some sectors it may decline. Unit labor cost will rise in one industry and drop in another, and the following year the reverse may occur. Ewan Clague, Commissioner of Labor Statistics of the U. S. Department of Labor, stated in January, 1959, that the output per man-hour for the private nonfarm sector may have declined somewhat from 1957 to 1958.

A genuine productivity wage formula might cause wages to fluctuate upward or downward in accordance with average man-hour output changes in the industry, in manufacturing in general, or in the private nonfarm sector. There is little likelihood, however, that any union would agree to a clause which permitted wages to decline on the basis of lower productivity in one sector of the economy.

Although automobile workers receive regular wage increases based on a productivity factor, it is doubtful that these increments fully reflect the rate of growth in productive efficiency within the industry. With a vast expansion in automation, many thousands of employees have been displaced. Unable to secure either an increase in the productivity formula or a shorter workweek in 1958, the union has had to be satisfied with some additional protection for workers displaced, either temporarily or permanently, within the auto industry.

2. PROBLEMS AND PITFALLS

Whatever view is adopted of this complex problem, it is not likely that the productivity wage policy will be generally accepted throughout American industry, or that the concept will stimulate plans for wage adjustments based on productivity at the plant or industry level. Productivity figures for many industries are nonexistent or incomplete (for example, service trades, professional work, and many manufacturing industries with heterogeneous products). Even where figures are available, seldom are they readily translatable into wage rates. Productivity varies widely among departments in the same plant, among plants in the same firm, among firms in the same industry, and among different industries. An attempt to build a wage structure on a strict productivity basis would result in distortions and inequities so serious as to be intolerable.

In a 1947 arbitration case involving the Pacific Gas and Electric Company and the Utility Workers Union of America, the union argued that productivity had been rising in this firm over an extended period of time, and that this justified a corresponding wage increase. Arbitrator Clark Kerr noted that productivity is a significant factor for the whole economy, but "to tie wages rigidly in each minor segment of the economy to changes in physical productivity in that segment would . . . cause greater distortion as between and among progressive, static and regressive industries than could be sustained." He also emphasized that the responsibility for rising productivity is hard to determine, and that, especially in a public utility, consumers can legitimately claim a large share of the benefits therefrom.

For these and other reasons, those who have most thoroughly studied this problem reject as unworkable any plan to link wages directly to productivity. The productivity criterion is most useful when it is applied, in terms of national man-hour output, to the performance of the private economy, indicating the extent to which the economic system can absorb wage increases without generating inflationary pressures. It then serves as a guide to public policy, partly signifying whether expansionist or deflationary measures should be adopted. In our peacetime economy, however, there is no mechanism by which government can directly control wage rates in private industry, and thus any imbalance in the private sector can be offset only through indirect fiscal and monetary policies.

This inevitably raises the question of how the gains from rising productivity are to be distributed, and, more specifically, whether they should be converted primarily into lower prices with stable wages and profits, or into higher wages and profits with stable prices. With a distribution of productivity gains to workers or to businessmen, there is a further problem of whether the increased earnings going to each group should merely be proportional to the rise in output, thus leaving their relative shares of national income unchanged, or whether one group should be permitted to expand its share by obtaining a more than proportional increase in its income.

Economists disagree on these questions, but the nature of collective bargaining and of public policy in this country makes it evident that the claims of the producers (both employers and employees) are, in fact, collectively more powerful and decisive than those of the consumers. Probably the average proportional increase in real earnings will keep pace with the long-run rise in output, though factors other than productivity affect this relationship and prediction in this area is dangerous.

Productivity, of course, varies considerably from year to year, as well as from industry to industry. Recent figures indicate that the average annual long-term (1909–56) increase in total real private product per manhour is about 2.2 per cent. According to BLS commissioner Clague in testimony before the Joint Congressional Economic Committee in early 1958, comparable estimates for the 1947–56 period indicate average gains of 3.1 to 3.5 per cent for the total private economy, 4.0 per cent for agriculture, and 2.8 to 3.3 per cent for nonagriculture. During this same period, however, the annual changes for the total private economy ranged from less than 1 per cent to nearly 9 per cent. The BLS estimates for 1956 and, to a lesser extent, for 1957 show a lower overall gain in productivity than the average for the postwar period, or in 1956 for the entire forty-seven-year period. Preliminary estimates of productivity for the year 1958 indicate little or no increase in total private output per man-hour relative to 1957.

The variations in productivity, both in time and in industrial location, thus make it difficult for unions and employers to develop a formula which would satisfactorily fit all cases. The GM annual improvement factor, adopted now in several industries, frankly represents the arbitrary application of a long-run national average to a specific situation which may or may not reflect the nationwide trend. Under the circumstances, this may be the only practical approximation to the productivity wage.

The fact that productivity is not easily measured, or immediately convertible into wage rates, does not mean that it cannot play an important part in negotiations. In some industries, notably in the garment trades, unions and management have worked together actively to improve productive efficiency and eliminate bottlenecks. As the collective bargaining relationship matures, both parties can sometimes afford to devote more time and attention to the problem of measuring and increasing productivity. This is perhaps a more hopeful approach to the issue than the seemingly abortive efforts to work out a productivity wage formula.

3. INCENTIVE PLANS

The other aspect of productivity wage policy —incentive or piecework plans—has a long, though indecisive, history. Many such plans have been in effect since the early part of this century, when new techniques were developed by industrial engineer Frederick W. Taylor for the establishment of production standards (time and motion study). This system, in general, provides bonuses to employees for production, either on an individual, group, or plant-wide basis, in excess of certain fixed standards. Though these plans are common in several industries, such as rubber and needle trades, unions often resist their introduction and management sometimes views them with mixed feelings.

Recent studies, however, indicate that the attitude of unions and employers toward incentives varies considerably according to their specific experience in the plant or industry. In certain industries, at least, unions are now more favorable to these plans than formerly, though the "official" viewpoint of the labor movement remains hostile.

In theory, the incentive plan is designed to stimulate production by rewarding workers for extra effort. Rather complex problems arise, however, in the administration of this policy. Should the standards and bonuses be fixed on a group or individual basis? How shall the standards be determined and revised? Should the various phases of the plan be subject to collective bargaining? What base pay should be guaranteed?

Owing partly to unfortunate past experiences with such plans, unions tend to be suspicious of production standards determined unilaterally by management or by engineers hired by management. When standards are developed on the basis of time and motion studies of work performances by individual employees in specific jobs, there is often sharp disagreement over such factors as fatigue allowances, safety, and quality of work. Unions sometimes charge that standards are manipulated so as to maintain a camouflaged speed-up. It is also alleged that the incentive rates on some jobs are "loose," permitting extremely high bonuses, whereas the rates on other jobs are "tight," making extra earnings difficult to obtain even with extraordinary performance. Management allegedly is quick to tighten "loose" rates but slow to adjust "tight" ones. Employers, on the other hand, sometimes argue that labor misuses the incentive plan to seize the benefits of improved output for which management is responsible.

Unions are also concerned about the possible divisive effects of incentive plans, charging that such plans often pit one group against another, or one employee against another, in an effort to secure progressively higher earnings through excess production. Claims are sometimes made that the plan can be used by a hostile management to penalize union workers and favor nonunion. Whether or not these claims are justified, the fact that unions sometimes believe them to be true may make it difficult to establish or extend incentive plans under collective bargaining.

In an effort to meet some of these objections, incentive plans sometimes adopt a single accepted group standard (such as the ratio of labor costs to production sales value added), and distribute any "surpluses" to eligible employees on an equal basis. This avoids the problems inherent in establishing production standards for specific jobs, but also provokes the criticism that individual effort is not sufficiently recognized under a group plan of this nature. Unions may find such a plan more acceptable than the usual incentive system, provided that the bonuses are not regarded as substitutes for general base pay adjustments and that the union is consulted in its establishment and administration.

In one such plan (the "Scanlon plan"), productivity is stimulated by production committees for various factory zones, each composed of a management representative named by the company's executive committee and an employee representative chosen by the workers in elections managed, in unionized plants, by the union president.

In reviewing existing plans, which, according to AFL-CIO estimates, cover about 30 per cent of industrial plant workers, unions and management generally agree on the following points:

1) The incentive plan must be relatively simple and easily understood, so that the workers covered can calculate their own earnings without excessive difficulty.

2) Plans must afford adequate opportunity for earnings above the base rates. Rigid ceilings on incentive payments destroy the effectiveness of the system.

3) Coverage must be as comprehensive as possible; incomplete coverage leads to inequities as between incentive and nonincentive jobs.

4) Foremen and supervisors must be thoroughly informed on all phases of the plan.

5) Where standards are influenced by changes in technology, organization, or other elements beyond the control of the worker, provisions must be made for revision, with participants fully apprised of the reasons for any change.

There are, of course, many other points on which unions and management disagree. For example, unions insist that all aspects of an incentive plan, including the determination of standards, be subject to review through collective bargaining procedures, while some management spokesmen argue that the plan cannot be effective if standards are negotiated. The practical difficulty with incentive plans is that the interests of the employer and the union may conflict; the employer naturally seeks to capture as much of the increased productivity as possible in the form of higher profits, while the union considers such plans as "exploitation" unless the rewards of higher production go primarily to the workers.

4. SUMMARY

In summary, "productivity," like "mother" and "flag," is loved by everyone, in theory. There is seldom any argument over the desirability of more production, but harmony disappears when the question arises of how the increased productivity is to be attained and the rewards to be distributed. The more specific the problem becomes, the less is the likelihood of agreement. Although both parties occasionally use productvity data in negotiations (a recent National Industrial Conference Board survey indicated that unions use such data more often than management), their interpretations differ so sharply in most cases that the criterion seldom has much influence on the ultimate wage decision. The complexities of productivity measurement are such that the negotiators are soon lost in a statistical morass. The final determination of wages is usually accomplished in more familiar terrain.

VI. Family Budgets

PROBABLY THE OLDEST standard for wage determination is the much-disputed "family budget." Historically, this concept has evolved from the "minimum standard of living" on which much of our earlier social legislation was based to the more recent "modest but adequate" budget developed by the U. S. Bureau of Labor Statistics and by various private organizations.

The first attempts to establish minimum wages in this country were made by social welfare groups, such as the National Consumers' League, whose initial objective was to secure legislative protection for women and children in industry. Gradually this campaign was broadened to include all workers, culminating in the passage of the Fair Labor Standards Act of 1938, which establishes wage minima for most employees in firms and industries affecting interstate commerce. Though the legislative criteria for determination of minimum wages are not clearly and specifically defined, in general such wages are based upon a "subsistence" standard.

These governmental measures are designed primarily to protect the low-income unorganized workers in American industry. As such, they have relatively little impact on the determination of wages under collective bargaining. Unions, however, often use various types of standard-of-living measurements to justify their wage demands in negotiations with employers. The most commonly used budgets are those prepared by the Bureau of Labor Statistics and by the Heller Committee for Research in Social Economics of the University of California. These budgets reflect a systematic effort to establish an "adequate" or "customary" standard of living.

1. THE BLS FAMILY BUDGET

The City Worker's Family Budget was developed by the BLS through a study of living costs in thirty-four large cities of the United States, in the spring of 1946 and summer of 1947. The purpose of this study was to ascertain the budget required to provide "a modest but adequate standard of living" for a family of four, including an employed father, a housewife not gainfully employed, and two children under fifteen. A Technical Advisory Committee, comprising experts in this field, prepared the basic standards and methods used in the project.

The level of living allowed by this budget is relatively modest. The family dwelling, which is rented, contains the usual household necessities and conveniences (such as cook stove, mechanical refrigerator, and washing machine), while the menu is correspondingly adequate but moderate. The budget, for example, permits meat for dinner several times a week "if the cheaper cuts of beef, pork, lamb, and veal are served on weekdays; a chicken or a roast may be served on Sunday and a turkey on


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Thanksgiving." Other allowances—clothing, transportation, recreation, and additional items—are similarly conservative.

The most recent official calculation of the budget required to maintain this standard of living was done by the BLS as of October, 1951. The annual average for all thirty-four cities was found to be $4,162, or about $80 per week. At that time, the cost of the budget varied from a low of $3,812 in New Orleans to a high of $4,454 in Washington, D.C. This study revealed that there were no significant differences among urban regions in average budgetary costs; for example, the average for southern cities, excluding Washington and Baltimore, was $4,159, while the average for the Northeast was $4,103.

No official recalculation of this budget has been undertaken since 1951. The Research Department of the AFL-CIO, however, has calculated a revised budget for twenty cities for which data were available in April, 1958, adjusting the previous figures for the rise in consumer prices and changes in federal income and social security taxes in the interim. No adjustment was made for changes in state and local taxes. According to this calculation, the revised minimum income required for a "modest but adequate" standard of living is now $4,656 a year, or about $90 per week. San Francisco tops the list of major cities with an annual family budget of $4,998, while Los Angeles and Washington, D.C., vie for second place with budgets of $4,897 and $4,896, respectively, in early 1958. Scranton, Pa., is the lowest-cost city among these twenty, with a budget of $4,288.

2. THE HELLER BUDGET

Another widely cited "family budget" is prepared annually by the University of California's Heller Committee for Research in Social Economics, which measures the minimum income necessary to meet a "commonly accepted" standard of living in the San Francisco area. Such budgets are established for families of workers in two different occupational categories: a wage earner and a salaried worker. The family consists of a husband and wife, a boy of thirteen, and a girl of eight. Essentially, this budget reflects the customary consumption habits of families living in the San Francisco Bay area, as indicated in the annual study of family expenditures. In 1958, the total budget for a salaried worker cost $9,202.92, and for a wage earner $6,435.11 (home owners).

In general, the Heller budget is more liberal in its allowances than the BLS City Worker's Budget. The food allowance in the 1958 Heller budget, for instance, provides for approximately 400 pounds of bread per year for the family of a wage earner, whereas the City Worker's Budget allows only 289 pounds. The former also permits an egg a day for each member of the family, again in excess of the BLS budget. The Heller budget makes provision for rent of $62.50 per month for a four- or five-room dwelling, a man's clothing bill of about $127 a year and a woman's bill of slightly under $141, and more liberal allowances for recreation (for example, a movie for the adults thirty-two times a year), insurance, transportation, and most other items. The annual cost of this budget for a home renter was $6,086.88, and for a home owner $6,435.11, as of September, 1958.

Although the BLS and Heller budgets are most widely known, references are sometimes made to others: the Family Budget Standard prepared by the Community Council of Greater New York, the Haynes Foundation budget for the Los Angeles area, and occasionally a budget prepared by a union or private research organization. In nearly all cases, these budgets are cited by unions in negotiations or in arbitration hearings to justify their demands for wage increases. The AFL-CIO emphasizes the fact that average wages of nonsupervisory production workers in manufacturing remain significantly below the minimum income standards required by the updated City Worker's Budget and especially the Heller budget.

3. THE FAMILY BUDGET: STRENGTHS AND WEAKNESSES

Even on the basis of *family* income, the various budgets seem to offer justification for substantial wage increases for a large proportion of our population. In 1958, the median family or consumer-unit income was about $5,000, which means that half of the units (either families or single persons) received less than this amount. Thus, considerably more than half of such consumer units obtained an income below the minimum specified by the Heller budget, and a large number are below the standard fixed by the revised BLS budget.

Seven and a half million consumer units received incomes under $2,000.

Despite its apparent strength on social grounds, it is improbable that the family-budget criterion has had much influence on the determination of wages under collective bargaining. From a practical viewpoint, it has many weaknesses. First, the budget represents a largely subjective evaluation of what an "average" American family must buy in order to meet an "adequate" or "accepted" standard of living, and controversy inevitably arises as to the norms used in such a study. For example, what constitutes an "average" family, and should an income standard established for such a hypothetical family be used in fixing the wages of workers in a specific plant or industry? A Census Bureau survey in 1955 revealed that only 44.9 per cent of American families have four or more members, but the various budgets assume a family of four. Furthermore, in actuality there is often more than one breadwinner in a family.

Second, it is difficult to convert such an income standard into a specific wage rate. The worker's income varies according to the duration and stability of his work, his output (if he is a pieceworker), and other circumstances peculiar to his particular job. Many of these factors are difficult to control, and any plan that attempted to fix the individual wage rate on the basis of such unique conditions would probably result in a highly complex and unworkable wage structure.

Third, wages must bear at least some relation, however distant, to productivity. Gross national product (total value of all goods and services) must be high enough to sustain a general wage level that would assure the standard of living provided in the family budgets. Many economists emphasize that productivity effectively limits the amount of wage increases that can be granted, and that wage boosts in excess of gains in man-hour output merely lead to corresponding price inflation or to unemployment. While the productivity theory is subject to many qualifications and limitations in practice, it is certain that wage increases cannot be sustained indefinitely without regard for their relationship to production, either in the specific labor market (as orthodox economic theory would suggest) or on a broader scale. As the figures on family income show, a program to increase all incomes to the Heller budget minimum for wage earners would mean a rise in income for more than half of all the families or consumer units in this country. A sharp rise in productivity would be required to meet this expanded demand for goods and services without inflationary price boosts.

Fourth, the family-budget criterion provides a more appropriate guide for broad social policy governing living standards than for the determination of wages in a particular plant or industry. In 1949, the Los Angeles Local Joint Executive Board of Culinary Workers and Bartenders requested that the wages of culinary employees be raised by $1.00 per day, partly because budgetary studies (notably the Haynes Foundation Budget for Moderate Income Families in Los Angeles) showed that the existing level of income for many employees fell below the "health and moderate comfort" level by as much as $1,500 to $2,000 per year. Arbitrator Frank Pierson declared that such budgets indicate only a general goal which most groups in our economy have come to recognize. They are helpful as guides to social policy but not in a specific case such as this. He noted that, in reality, the budget cited would justify a much larger increase than the union had requested.

The application of this criterion in practice must obviously be on the widest possible scale, either through social legislation or through industry- or economy-wide bargaining, still far from prevalent in the United States. An individual employer cannot assume the risk of basing his wages on a family budget when his competitors are not required to do the same. It is therefore likely that competitive pressures will restrict the adoption of a family-budget criterion by single firms.

VII. Purchasing Power

MOST OF THE STANDARDS for wage determination are centered upon the economics of the individual worker, firm, or industry. An important exception is the "purchasing power" argument, which applies to the total economy. This argument, in essence, suggests that wage increases are justified (and perhaps essential) as a means of stimulating the consumer market for goods and services.

Obviously this is a very imprecise standard, indicating neither the nature nor the amount of a contemplated wage adjustment. Basically it is a broad economic principle used to justify wage demands advanced on other grounds and for other specific purposes. As such, it probably has more value as a public relations gambit than as a criterion for wage determination. Nevertheless it is prominent among the arguments offered by unions in support of their demands, and therefore merits consideration.

Unions in large mass-production industries, with a majority of their members in unskilled or semiskilled classifications, are most often inclined to use the purchasing-power argument. These industries are highly sensitive to movements and shifts in consumer demand.

Union leaders who first came to national prominence during the New Deal period, such as Walter Reuther of the UAW and the late Philip Murray of the Steelworkers, have been particularly articulate in this type of economic reasoning. The emphasis on broad economic justification for higher wages may reflect in some degree the organization, along industrial lines, of production workers less skilled than the craft workers in the traditional AFL unions. With this organizational shift, wage increases have come to be regarded less as a recognition of individual skill (though this remains of importance) than as a necessary distribution of purchasing power to keep the economy operating at full speed. Many types of unions with varying structure and form, however, have used this argument whenever it has suited their purposes.

1. ECONOMIC BACKGROUND

The rise of the purchasing-power argument reflects, in large measure, a corresponding transition in economic theory. The "traditional" theory, widely accepted prior to the 1930's and still popular in many quarters, stresses the cost effects of wage changes, and contends that the operation of a price system could automatically maintain long-run full employment and effective purchasing power. The newer theory, given wide attention in the mid-thirties and since, emphasizes the short-run demand effects of wage policy, on the assumption that full employment can be attained only if a sufficient volume of aggregate demand (consumption plus investment) is forthcoming. The details of this continuing clash of theories need not concern us here; its importance for wage determination arises merely from the influence it has exerted on the arguments for and against proposed general wage changes.

Couched in the terms of purchasing-power theory, the union case for higher wages usually proceeds along these lines:

A high-productivity economy such as ours is characterized by a continuous expansion in the volume and variety of commodities and services offered for sale on the market. If consumers lack the buying power necessary to take these goods off the market at the prices demanded, production declines and unemployment results. As our productive capacity expands, therefore, more and more income must be distributed to those who constitute the overwhelming majority of consumers. These are the workers, who necessarily must spend the greater part of their income in order to preserve and improve their standard of living. The high-income groups, by contrast, save and invest a large proportion of their income, thereby withholding it from consumption (we here ignore the complex debate over whether increased saving automatically leads to increased investment, and whether such investment mitigates or aggravates the problem of underconsumption). Frequent wage increases and greater job security are thus essential if the expansion in the consumer market is to keep pace with industrial progress.

The counterargument, influenced in some ways by "orthodox" economics, rests in large part on the premise that our major economic problem is not underconsumption but rather underinvestment and underproduction. With inflation as a prime worry, our goal must be increased productivity instead of inflated demand. Wage boosts in excess of productivity merely contribute to inflation, both in their cost effect (higher unit costs) and their demand effect (more consumer bidding for relatively scarce goods). A continuous rise in labor cost discourages investment and risk-taking, thereby drying up the source of our economic progress. From this viewpoint, "excessive" wage increases lead either to inflation or unemployment, depending on competitive conditions in the market. Some economic theorists would suggest that the proper remedy for temporary overproduction is lower prices, though many businessmen jump off the theorists' bandwagon at this point (hostility to price reductions is not uncommon in many industries).

2. PRACTICAL LIMITATIONS

A perusal of leading union and management publications, for example, the AFL-CIO's *Collective Bargaining Report* and the U. S. Chamber of Commerce's *Economic Intelligence,* will reveal the apparent importance given to these respective economic concepts. Such theories see frequent service as rationalizations for bargaining positions adopted by both sides. It is not likely, however, that they are given much weight in the negotiating session. First, they are too abstract; even if the parties could agree on general economic principles (a highly improbable assumption since the economists disagree among themselves), there would still be little to guide them in determining the precise nature and size of the wage adjustment to be made. Second, broad concepts like "purchasing power" apply mainly to the whole economy, rather than to a particular firm or industry; the individual management or union seldom feels that it has either the power or the responsibility to maintain general economic stability. Like productivity, the concept of purchasing power is more suitable as a guide to public policy than as a specific standard for wage determination.

Translated into the specifics of collective bargaining, purchasing-power theory buttresses the union's case for higher wages in a period when prices and profits are high and the prospects for upward wage adjustments are favorable. In such circumstances, it often becomes part of a formidable trio of arguments, its companions being productivity and ability to pay. When economic prospects are less hopeful, as in a recession, the purchasing-power theme may still be used as a justification for wage demands designed to stimulate buying, but its effectiveness will be severely limited in negotiations.

3. SUMMARY

The purchasing-power argument, of course, is used primarily in the key bargains which set the wage pattern for a particular industry or area. With both labor and management aware of the critical influence exerted by such a bargain upon wage levels generally, their dispute is likely to spill over into the advertising columns of newspapers, the commentaries of editorial writers and columnists, and even radio and TV. In such appeals for public support, arguments over purchasing power and productivity are likely to play a leading role. The public is treated to the spectacle of a hard-fought debate, no holds barred, centered on the determination of wages and other benefits at the key firm. Once the key bargain is settled, however, peace usually returns, controversy dies, and purchasing power is laid to rest for another year or so. The comparisons standard enters the spotlight, and perhaps hundreds of contracts embodying the formerly controversial provisions will be signed with hardly a whisper of dispute.

VIII. Technical and Miscellaneous Factors

For each individual job, there are inevitably a number of factors that influence the wage rate paid. These seldom have much impact on the general wage level, because they are usually unique and specific in terms of the job itself. Their effect in certain major industries, nevertheless, has been considerable.

1. PHYSICAL CONDITIONS OF THE JOB

One such factor is the degree of risk and onerousness attached to the job. Jobs regarded as hazardous or unpleasant normally require a wage premium to attract and hold sufficient workers. Where working conditions are disagreeable, in relation to conditions in other industries or occupations, mere logic would indicate the need for higher wages to offset the obvious disadvantages of the job.

Presumably the absence of a wage premium would cause workers to seek alternative jobs, either in the same or a different industry. Employees, however, sometimes seem to defy such "rational" considerations. Coal mining

has long been regarded as an occupation that is unusually risky and generally unpleasant; yet, for many years, the competitive situation in this industry kept the annual income of miners at an exceptionally low level. Despite this, most miners remained within the industry, refusing to migrate elsewhere. Although both common sense and economic theory suggested that the combination of low income and hazardous working conditions would encourage workers to move out of the industry, only a minority left. The explanation might be found in the unique characteristics of miners as a group, which cause them to remain in their occupation despite conditions regarded as onerous and even intolerable by "outsiders."

2. STABILITY AND DURATION OF EMPLOYMENT

Another important factor influencing the wage rate is the stability of employment. This is particularly evident in casual trades such as in building construction, where irregularity of employment can cause marked fluctuations in annual income of employees. Union rates for construction trades have long been high in relation to other trades, but the intermittent nature of employment in this industry has often caused *annual* earnings to lag behind those in other industries. In 1953, average hourly earnings in building construction were at the high level of $2.48, but average annual earnings in this sector were only $4,244, below the earnings in transportation and mining and less than $200 a year above the average for manufacturing. Other industries characterized by seasonal or casual employment are maritime, clothing, agriculture, and to some extent the auto industry.

Related to this problem is that of take-home pay, especially in industries where an opportunity for substantial overtime earnings has existed. Particularly after World War II, there was strong pressure in some industries to increase hourly rates to compensate for the general reduction in hours and consequent loss of accustomed overtime earnings. While this issue may be of significance at particular times, generally it is peripheral and without noticeable influence on wage determination.

3. INTERNAL AND TECHNICAL FACTORS

More important are technical and technological factors affecting the operation of a specific job. Changes in machinery or equipment may require new skills and a corresponding reëvaluation of job content and responsibility. In an era of automation this is a process that must be undertaken frequently in plants and industries characterized by rapid technical advance. Readjustment in the relationship of job rates within the internal structure of the firm must take place if inequities are to be avoided and proper weight given to additional knowledge and responsibility required.

Shifts in technology will have a potent influence on the skill pattern within a labor market. Some jobs may then require greater or less training than previously, others may be rendered obsolete, and entirely new jobs may emerge. A scarcity or surplus of particular kinds of skills will affect the wage structure, pushing some rates downward and others upward. A large-scale shift to prefabricated housing, for instance, could revolutionize the entire wage pattern of the building trades; it is no wonder, then, that the construction unions and employers have taken precautions at various times (both directly and through the building codes) against such a development.

Some may question why, in this survey of wage determination, greater emphasis is not placed on the factor of individual skill. Obviously skill is a primary consideration in determining the internal rate structure within the firm. The skill of the worker largely decides the type of job he will be assigned, and improvement in his technical ability will undoubtedly become a basis for merit increases within a rate range or for upgrading. General wage *changes* in the plant or industry, however, are most often influenced by other criteria.

There are, of course, important connections between market forces and internal rate structures in the determination of wages. When a firm makes a decision affecting wage policy, it must take into account both the prevailing wages for similar jobs in the industry and community and the relationship among jobs internally. The rate for a given job can seldom be derived automatically or directly from a survey of "comparable" occupations. The employer must consider not only the problem of remaining competitive in the local labor market, but also the problem of maintaining morale and productivity in the context of the existing wage structure.

The nature and relationship of jobs within the firm are determined by technology and the demand for the product. In the organization of modern industry, jobs tend to be grouped into "clusters" or "teams." Each "team" will center around one or more key jobs which, due to the production process, are particularly important in terms of skill, responsibility, scarcity of labor, training required, and similar factors. As production techniques and patterns of demand change, of course, the key jobs may be transformed.

In a metal-working shop, the tool and die maker is likely to be a key worker, and wage determination may be focused on the rate for this job. In a steel mill, the members of the open hearth crew will constitute an essential team whose rates are linked together and for whom there is a fixed joint demand. In longshoring, all work is performed by gangs, whose size and efficiency are probably a greater source of controversy between union and management than the wages paid.

Wage determination has two functions: to establish rate relationships both within each team and among the various teams in the firm. One process used in fulfilling these functions is that of job evaluation, or the rating of jobs in accordance with skill, responsibility, degree of hazard, physical effort, and working conditions. The establishment of job classifications through the evaluation procedure involves delicate and complex problems: Does job A require greater skill than job B? Should the truck driver and the production machinist be placed in the same class for wage purposes, even though there is no similarity in the nature of the jobs as such?

Out of this internal process may emerge other problems. Suppose that a long-established relationship has existed within the firm between the wage rates of truck drivers and production machinists. Now, let us assume that a scarcity of machinists occurs in the local labor market, causing their wages at the firm to fall below the community average. Market forces then tend to push the machinist's rate upward, disturbing the existing relationship between it and the rate for truck drivers. If the rate for machinists is boosted with no change in the drivers' wage, the latter group becomes unhappy. If both rates are raised to preserve the usual relationship, the wage level for drivers may become excessive in terms of the community average and job content. If the machinists are given no raise at all, maintaining the old relationship with the drivers, the firm will be unable to recruit the workers it needs and will probably lose many of its present employees.

Obviously there is no magic formula to indicate precisely what action to take. We can only say that the wage rate for any given job depends both upon external (labor market) and upon internal (job relationship) forces. Sometimes they work in the same direction, sometimes in the opposite. Changing consumer demand, labor scarcity, advancing technology, new managerial techniques, and union policies all affect the pattern of wages.

The increasing attention paid in the auto industry to the wages of skilled workers illustrates the importance of both internal and external forces. Dissatisfaction has been evidenced among the craftsmen partly because the relative differentials between their rates and those of the less skilled in the same plant had been narrowing over a period of time, and partly because other firms or industries in the labor market had established higher wages for comparable jobs.

4. ABUNDANCE AND SCARCITY OF LABOR

A powerful force influencing wage determination in a specific labor market is the relative abundance or scarcity of workers with a given skill. Essentially this is a practical manifestation of the supply-and-demand factors spotlighted in the "competitive" theory. To take an obvious example, in wartime the demand for certain types of skilled craftsmen, notably tool and die makers, rises sharply, creating a relative scarcity of such workers particularly in those areas where the aircraft industry is concentrated. With or without union organization, the bargaining power of these employees is correspondingly strengthened. Employers can obtain scarce workers only by offering higher wages than competitive firms, often sufficiently high to induce them to move from entirely different areas or industries. In turn, essential craftsmen can be retained only by matching the wages offered elsewhere, generating a continuous upward pressure on their wage rates in a "tight" labor market.

Unions have sometimes tried to protect high wage rates by establishing and maintaining a scarcity of some types of labor within their jurisdiction. Through "closed" membership lists under union-security contracts, high admission fees, extensive apprenticeship requirements, and similar devices, unions occasionally have restricted the entrance of new workers into a given trade. Efforts to regulate entry and thereby maintain an artificial scarcity are not limited, of course, to labor unions; various professional and business organizations have adopted the same practices at times in order to protect their respective income standards or for related reasons.

5. RELATIONSHIP OF WAGE RATES AND "FRINGES"

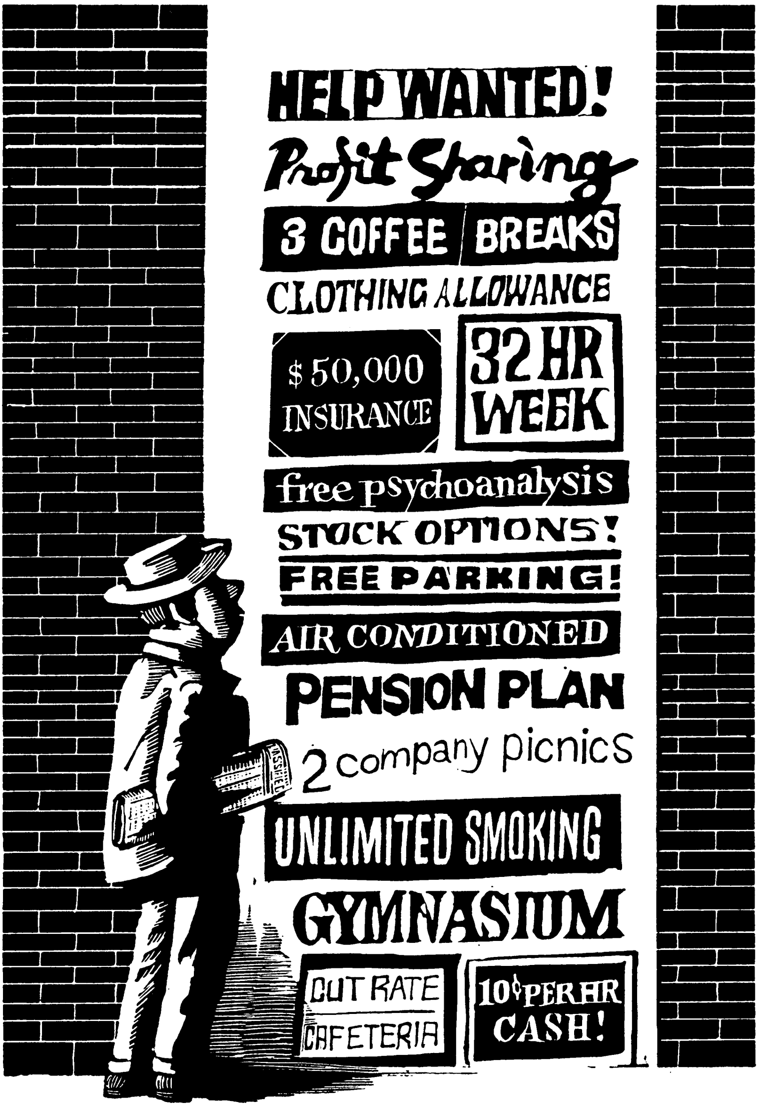
One other factor merits attention in any discussion of wage determination. Unions and management will frequently argue that nonwage benefits (vacations, holidays, pensions, insurance, and other fringes) should be taken into account in fixing the wage rate. As indicated previously, such benefits have assumed a leading role in negotiations within recent years. Negotiations, particularly in the major industries, are now centered on total labor cost rather than merely on the wage rate. Management will sometimes assert that a generous fringe-benefit program justifies concessions from the union on wage rates, but the likelihood is that, in fact, superior wages and benefits are complementary and not substitutes for one another. To put it another way, firms with the best wages usually have the best nonwage benefits too. As in the case of wages, unions seek a high degree of uniformity in benefits among the firms with which they negotiate, and an improved pension or health plan established at a key firm is likely to be extended to others in the same industry or perhaps a number of industries.

In a sense, therefore, the concept of "wages" should be broadened to include the totality of items making up labor cost. Increasingly the goal of unions is to secure from employers in a given bargaining area a reasonably uniform "package" which comprises not only wage rates but fringes ranging from longer vacations to maternity benefits. The economic position of each firm within the industry will sometimes cause variations in the benefit level, but the strongest pressure is again in the direction of fundamental uniformity. Workers tend to compare their benefits with others, along with their wage rates. The comparisons standard therefore remains of critical importance.

IX. Summary and Conclusions

PERHAPS a noteworthy conclusion emerging from this survey of wage standards is that many of the commonly held concepts of "wages" are inadequate and unrealistic. Certainly the definition of a wage as a simple monetary rate per hour (or per day, week, month, or year) leaves much to be desired. For example, we dare not assume that workers move from one job to another primarily or exclusively in response to changes in this rate, or that the attractiveness of an existing job depends mainly on its measurable pecuniary worth. In reality, a rather intricate complex of factors attracts an employee to, or holds him within, a given firm or industry. A composite of tangible and intangible benefits constitutes the "wage" of the worker, and his reaction to any projected change in the composition of this package will often be unpredictable.

As we have seen, collective bargaining in major industries is now centered on a package of items making up total labor cost. Some workers are attracted particularly by the nonwage benefits offered in connection with a specific job, such as pensions, medical insurance, and other fringes; others by the working conditions or the security provided; still others, the most unpredictable of


HELP WANTED!
Profit Sharing
3 COFFEE BREAKS
CLOTHING ALLOWANCE
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32 HR WEEK
free psychoanalysis
STOCK OPTIONS!
FREE PARKING!
AIR CONDITIONED
PENSION PLAN
2 company picnics
UNLIMITED SMOKING
GYMNASIUM
CUT RATE CAFETERIA
10¢ PER HR CASH!

the lot, by the prestige or similar intangible characteristics of the job, or, perhaps, merely by custom and habit. Certainly one cannot discount the obvious importance of the dollars and cents associated with the job, but this may or may not be decisive in determining the employee's outlook. It is hardly necessary to document the conclusion that the forces that influence both wage determination and the allocation of labor among alternative jobs are invariably complex and often undefinable.

It is difficult, therefore, to construct a practical and realistic definition of an "ideal" wage. What the economist may regard as ideal in terms of consumer welfare (often viewed as reflected in each worker's contribution to the value of total product of goods and services) may not be in accord with the employee's view of his welfare. His motivations are diffuse and frequently obscure, and it is impossible to reduce them to a single economic dimension. He may regard his job in a given plant or industry as a kind of lifetime investment, which is entitled to protection and security. For this reason, he does not look kindly upon political and economic proposals (be they tariff reduction, antiunion legislation, elimination of farm "parity," or a restoration of "free competition") that he fears might threaten his wages or his job.

It should come as no surprise that "objective" standards for wage determination are lacking. In a society that justifiably exalts human welfare but remains unsure of what that welfare is, uncertainty in the practical definition of a desirable wage level is to be expected. The problem is made even more complex by the many intangible and noneconomic factors that influence the employee's attitude toward his job.

Political and social realism requires that workers in a specific trade or industry be treated as members of an industrial community, with a permanence and a survival instinct of its own. Workers seldom regard their membership in an industry as transitory, and much collective bargaining is concentrated on the improvement of their employment status and tenure as well as their wages. Economists often emphasize, however, that there may be a conflict between these two aims: higher wages, for instance, may be secured only at the expense of increasing mechanization and unemployment. The coal and automobile industries are sometimes cited as cases in point. Workers should be aware of the choices to be made and the possible sacrifices to be required.

The complexity of this problem is inevitably reflected in the various wage standards. All are imprecise or insufficient; most are contrived to serve immediate ends rather than to indicate a long-run goal. Everyone, in principle, favors an "equitable" wage, but his definition is invariably influenced by his own interests.

In a sense, therefore, this survey of wage standards reveals more about their deficiencies than their merits. Obviously no single concept satisfactorily explains the process of wage determination, either in terms of what ought to be or of what is. In practice a complex combination of factors determines the wage level in any specific firm or industry, and very often the significant forces at work are hidden from public view. Collective bargaining, in particular, may assume the aspect of a military campaign, in which the tactical improvisations of the commanding general are more decisive than the textbook theorems of strategy. Nor is any one battle exactly like the previous one, or the one following. Economic analysis can perhaps define the limits within which the bargaining must take place, but this can be a rather wide range.

The "commanding generals" in the process of wage determination are those negotiators who establish the key bargains throughout the American economy. These are the wage settlements that set the pattern for various segments of industry. In effect, these negotiations determine wages not only for the specific bargaining unit but also, thanks to the comparisons standard, for many hundreds of other units which are not directly involved. They have a substantial impact both on union wages generally and on the wages and salaries paid to nonunion employees. Once the pattern-setting negotiations are concluded, the simple process of comparison influences the general trend of wages throughout much of industry.

The explanation of wage determination in the key bargains is manifestly more complicated. As pioneers in this process, these negotiators must seek other guides and criteria. A number are available to them: cost of living, ability to pay, productivity, standard of living, and others. No one of these is ordinarily acceptable as the determinative basis for wage-fixing. The union will emphasize those criteria that tend to support its case for higher wages; management, in turn, will point to those that substantiate its own claims. The ultimate wage settlement usually occurs somewhere within a range fixed by the general economic situation, with an expanding and dynamic consumer market conducive to upward wage adjustments.

Confronted with a rising price level, negotiators have established many cost-of-living escalators in recent years. These clauses, customarily linking wage adjustments to corresponding changes in the BLS Consumer Price Index, are widely regarded as equitable and practical. Unions, however, look upon them only as a minimum protection against inflation, and neither side considers them the sole or even the primary basis for wage determination. The automaticity and simplicity of adjustments under such provisions increase their popularity in time of inflation, but normally they are a relatively small part of the total wage package.

Productivity and ability to pay are criteria which usually play a minor role directly in negotiations, but which may exert a measurable influence indirectly. From a practical standpoint, the difficulties inherent in translating them into specific wage rates restrict their usefulness as a guide to negotiators, but their presence in the background will largely determine the range within which bargaining occurs. Obviously, where profits and productivity are relatively high (despite uncertainties in measurement), the prospects for significant wage advances are bright. The union will be more aggressive, and the employer will be less resistant. Experienced negotiators will be acutely aware of the prevailing market situation, cognizant particularly of the extent to which consumer demand for the firm's product will permit wage increases without severe encroachment on profits.

Productivity appears to be an especially reasonable standard for wage determination. Most would probably agree that the worker should receive a wage increase if productivity rises as a result of improved skill and effort on his part. This last proviso, however, constitutes a major difficulty. In practice, it is difficult, perhaps impossible, to know precisely what proportion of any given increase in productivity is due to improvements on the part of the employee and what proportion is due to better equipment, techniques, and managerial efficiency. If output rises with *no* change in machinery or in managerial organization and skill, labor can claim the credit without serious dispute. But in a dynamic society virtually everything in industry is subject to frequent change, and a given productivity figure (assuming it is available and acceptable) ordinarily gives rise to heated debate about allocation of the responsibility for it.

Further, there is general agreement that determination of wages on a strict productivity basis, taking the figure as a whole, would create distortions and inequities among firms and industries. Workers in technically unprogressive industries might receive no wage raises at all, whereas those more fortunately situated might obtain substantial increases. These adjustments, however, could bear little or no relation to the skill and effort of the workers involved.

The productivity, family-budget, and purchasing-power standards all are more appropriate and useful as general guides than as specific bases for wage determination. They serve an important function in indicating whether a given trend in wages is economically and sociologically sound. In addition, they spotlight certain questions that one may well raise in evaluating the possible effect of wage adjustments. What, for example, is their most likely impact upon the general price level and employment? Are they sufficient to provide an "adequate" standard of living for workers? If not, does national productivity permit wage increases necessary to attain this minimum standard? Is additional buying power needed to sustain production, and will wage boosts provide such power or merely inflate prices still further?

Respected economists disagree on the answers to such questions, and where the "experts" are uncertain, most laymen fear to tread. Nevertheless, it is important at least to raise the questions, however tentative the answers may be. To most Americans, their wage or salary is their most important link to the economic system. Anything that affects it, for good or ill, directly or indirectly, is of vital interest. Certainly, in this area, ignorance is hardly bliss.

X. Suggestions for Further Reading

General

One of the most widely used studies of wage criteria is Sumner H. Slichter's *Basic Criteria Used in Wage Negotiations,* published by the Chicago Association of Commerce and Industry in 1949. This study is short and analytical, discussing the various standards in terms of their probable economic effects. Its viewpoint is essentially conservative.

A recent analysis of major wage standards may be found in *Wage Determination: An Analysis of Wage Criteria,* by Jules Backman (Princeton, N.J.: Van Nostrand, 1959).

Another general analysis of wage standards is to be found in Irving Bernstein's book *Arbitration of Wages* (Berkeley: University of California Press, 1954), specifically Chapters IV and V. These chapters discuss the criteria, with special emphasis on the comparisons standard, primarily in terms of their role in the arbitration process.

New Concepts in Wage Determination, edited by George W. Taylor and Frank C. Pierson (New York: McGraw-Hill, 1957), contains several analyses of the problem by academic economists and by labor and business spokesmen.

John T. Dunlop's *Wage Determination under Trade Unions* (New York: Augustus M. Kelley, 1950) is highly theoretical and abstract, with major attention devoted to the theory of wage determination in unionized firms and industries.

Proceedings of the Economic Institute on Wage Determination and the Economics of Liberalism, held on January 11, 1947, have been published by the United States Chamber of Commerce. The economists participating (with the exception of John T. Dunlop and E. Wight Bakke) are strongly conservative and sharply critical of union policies. The "orthodox" viewpoint on wage determination is well expressed here by Fritz Machlup.

Older and largely outdated analyses of wage standards are to be found in *Principles of Wage Settlement*, edited by Herbert Feis (New York: Wilson, 1924), and in a series of papers and comments by William Fielding Ogburn, George Soule, Paul H. Douglas, and Sam A. Lewisohn in the Supplement to the *American Economic Review*, XIII (March, 1923), 118–146.

Other general discussions are contained in: Edwin E. Witte, "Criteria in Wage Rate Determinations," *Washington University Law Quarterly*, Fall, 1949, pp. 24–43; George W. Taylor, "Criteria in the Wage Bargain," *Proceedings of New York University First Annual Conference on Labor* (Albany: Bender, 1948), pp. 65–88; Lloyd G. Reynolds, "Bargaining over General Wage

Changes," *Proceedings of New York University Second Annual Conference on Labor* (Albany: Bender, 1949), pp. 155–171; Emanuel Stein, "Criteria in Wage Arbitration," *New York University Law Review*, XXV (October, 1950), 727–736; Frederic Meyers, "Criteria in the Making of Wage Decisions by 'Neutrals': The Railroads as a Case Study," *Industrial and Labor Relations Review*, 4 (April, 1951), 343–355.

The Proceedings of the Annual Meetings of the Industrial Relations Research Association also contain frequent discussions of wage determination and related questions; see, for example, the 1957 volume, pp. 194–223.

In addition to these sources, much information from a partisan standpoint may be obtained from such publications as the AFL-CIO's *Collective Bargaining Report* and the U. S. Chamber of Commerce's *Economic Intelligence*.

Comparisons

An outstanding analysis of the impact of comparisons upon wage determination and union policy is contained in Arthur M. Ross's book *Trade Union Wage Policy* (Berkeley: University of California Press, 1948), particularly Chapter III.

Also of interest is Dunlop's contribution to the proceedings of the U. S. Chamber of Commerce's Economic Institute, cited above.

Chapter IV of Bernstein's *Arbitration of Wages* provides a thorough analysis of this problem from the viewpoint of the arbitrator.

The general problem of wage differentials is discussed in a number of books and articles, for example, Joseph Shister, *Economics of the Labor Market* (New York: Lippincott, 1949), Chapter 16; E. H. Van Delden, "Wage Differentials: Intra- and Inter-Industry," *Proceedings of New York University Third Annual Conference on Labor* (Albany: Bender, 1950), pp. 93–102; Harry Ober, "Occupational Wage Differentials, 1907–1947," *Monthly Labor Review*, 67 (August, 1948), 127–134; H. M. Douty, *Wage Structures and Administration* (Los Angeles: Institute of Industrial Relations, UCLA, 1954).

Cost of Living

A discussion of cost-of-living escalator clauses, from the union viewpoint, may be found in the AFL-CIO *Collective Bargaining Report* for February, 1957, and January, 1958

The possible economic effects of this (and the productivity) clause are discussed by Melvin M. Reder and Arthur M. Ross in articles on the General Motors-UAW 1948 agreement, *Review of Economics and Statistics*, XXXI (February, 1949), 1–14.

The *Monthly Labor Review*, published by the Bureau of Labor Statistics of the U. S. Department of Labor, often contains articles on price movements and the cost of living, for example, Ewan Clague, "Interrelationship of Prices, Wages, & Productivity, 1946–57," 81 (January, 1958), 14–22.

Ability to Pay

The AFL-CIO *Collective Bargaining Report* for March, 1958, discusses the use of financial data in negotiations from a union viewpoint.

During the lengthy strike of 1945–46, centering in part on the ability-to-pay issue, General Motors published arguments against the union position in a booklet entitled *Information concerning the UAW-CIO Strike at General Motors; for Members of General Motors Management* (Detroit: 1945).

The Dynamics of a Labor Market, by Charles A. Myers and George P. Shultz (New York: Prentice-Hall, 1951), discusses this issue in depressed New England industries.

Productivity

The *Productivity Measurement Review,* a regular publication of the Productivity Measurement Advisory Service of the European Productivity Agency, discusses the various aspects and problems of output measurement in each issue, often relating them to the issue of wage determination.

The National Industrial Conference Board's *Management Record* frequently contains articles analyzing labor productivity, as well as other matters related to wage determination, primarily from an employer viewpoint. See, for example, the August, 1957, issue, pp. 265–292.

Other discussions of productivity may be found in: Peter O. Steiner and William Goldner, *Productivity*

(Berkeley: Institute of Industrial Relations, UC, 1952), which contains an annotated bibliography on the subject; Solomon Fabricant, "Productivity Measurement," *Proceedings of New York University Third Annual Conference on Labor* (Albany: Bender, 1950), pp. 75–92; and various issues of the AFL-CIO *Collective Bargaining Report* and U. S. Chamber of Commerce *Economic Intelligence*. Professional journals, such as the *American Economic Review, Quarterly Journal of Economics,* and the *Review of Economics and Statistics,* also contain frequent articles on productivity and related problems.

There is, in addition, a rather comprehensive literature on incentive plans. The AFL-CIO *Collective Bargaining Report* for December, 1957, discusses such plans from a union viewpoint. Various business or promanagement publications, such as the NICB *Management Record* and *Business Record,* also publish evaluations of incentive systems, for example, Nicholas Martucci, "Productivity and Incentive Pay," *Management Record,* XIX (October, 1957), 346–349, 376–380; and "Is Your Incentive Plan Headed for Success—or Failure?" *Factory Management and Maintenance,* 113 (May, 1955), 128–130.

H. M. Douty's *Wage Structures and Administration,* cited previously, contains a brief discussion of incentive plans (Chapter VII), and also a bibliography in the field of job evaluation and incentive systems. See also William Gomberg, "Job Evaluation and Wage Incentives," *Proceedings of New York University First Annual Conference on Labor* (Albany: Bender, 1948), pp. 39–63; San-ford H. Markham, "Incentive Wages: A Management Viewpoint," *Proceedings of New York University Second Annual Conference on Labor* (Albany: Bender, 1949), pp. 173–187; Solomon Barkin, "Wage Incentive Systems and Industrial Productivity," *ibid.*, pp. 189–213.

Family Budgets

The two basic sources of information on family budgets in the United States are BLS Bulletins Nos. 927 and 1021: *Workers' Budgets in the United States: City Families and Single Persons, 1946 and 1947* and *Family Budget of City Workers, October 1950.* Another important source is Eunice M. Knapp, "City Worker's Family Budget for October 1951," *Monthly Labor Review,* 74 (May, 1952), 520–522.

Equally well-known references are the Quantity and Cost Budgets published annually by the Heller Committee for Research in Social Economics, University of California, Berkeley.

The AFL-CIO *Collective Bargaining Report* for June, 1958, analyzes these budgets from the union standpoint.

A leading book on this subject, though now largely outdated, is C. C. Zimmerman, *Consumption and Standards of Living* (New York: Van Nostrand, 1936).

Purchasing Power

A relatively nontechnical statement of the case for the "underconsumption" thesis, from an academician, may be found in H. Gordon Hayes, *Spending, Saving and Employment* (New York: Knopf, 1945). The various reports issued by Robert R. Nathan and Associates for the CIO and affiliated unions also express this same viewpoint.

Criticisms of this thesis, specifically in relation to wage policy, are expressed in Slichter's *Basic Criteria Used in Wage Negotiations* (pp. 31–35), cited previously, and in his article, "Raising the Price of Labor as a Method of Increasing Employment," *Review of Economics and Statistics*, XXXI (November, 1949), 283–288.

Technical and Miscellaneous Factors

For general introductions to the technical processes involved in establishing wage structures, see H. M. Douty's pamphlets published by the Institute of Industrial Relations at UCLA: *Wages: An Introduction* (1951) and *Wage Structures and Administration* (1954).

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