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Incentive-Wage Plans and Collective Bargaining

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LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF LABOR,
BUREAU OF LABOR STATISTICS,
Washington, D. C., August 4, 1942.

The SECRETARY OF LABOR:

I have the honor to transmit herewith a report on incentive-wage plans and collective bargaining. The report summarizes the findings from a study of incentive plans as viewed by workers and their union representatives, made by the Bureau of Labor Statistics during the winter of 1940-41.

This bulletin, a portion of which appeared in the *Monthly Labor Review*, July 1942, was prepared by Fred Joiner and Van Dusen Kennedy, under the direction of Florence Peterson, Chief of the Industrial Relations Division.

A. F. HINRICHS, *Acting Commissioner.*

HON. FRANCES PERKINS, *Secretary of Labor.*

*Bulletin No. 717 of the
United States Bureau of Labor Statistics*

[Reprinted from the MONTHLY LABOR REVIEW, July 1942, with additional data.]

INCENTIVE-WAGE PLANS AND COLLECTIVE BARGAINING

FEW management policies have aroused as much opposition from workers as have incentive-wage systems. Workers have organized into trade-unions, gone on strike, adopted limitations on output, refused to work with "pace-setters," and tried many other methods to thwart or control incentive systems. Some unions have succeeded in eliminating or modifying incentive plans or preventing their introduction in individual plants. On the other hand, incentive methods prevail in some plants and industries that are working under well-established union agreements.

Much of the disrepute of incentive systems among workers is due to past experience with the rate cutting and the speed-up which often accompany incentive plans, as well as to the workers' general distrust of a purely "scientific" approach to their jobs. The application of collective bargaining to the determination of job standards and incentive rates in many cases has removed or alleviated grievances regarding incentive-wage methods. Many union agreements now contain specific prohibitions against rate cutting and other "unfair" time-study and incentive practices. Equally important, unions have obtained the right to participate in the actual rate-setting procedure in some plants, and in others the right to appeal any unfair incentive rate or practice through the grievance procedure. In many cases, where these controls have been effectively applied, the traditional opposition of organized labor has been modified to the point of at least passive acceptance of incentive methods of payment.

Development of Incentive Systems

An incentive-wage plan is a method of wage payment by which earnings fluctuate more or less in accordance with actual output, thus providing an immediate financial stimulant to workers to increase their efforts and output. The simplest form of such wages consists of straight piece rates, under which a fixed sum is paid for each article produced or worked on. Under the more complex incentive systems, a premium or bonus is allowed for production in excess of a previously determined standard. Incentive methods of wage payment are most easily applied when the work to be performed is highly repetitious,

with measurable units of output in which the speed and dexterity of the workman has an important effect on individual output.

In the early days of the factory system, piece work was common only in such industries as clothing and textile manufacture. These industries had their beginnings in home work, the worker being paid by the bundle for completed or semicompleted work. When the work was transferred to the factory, it was divided into many operations, making possible a further refinement in the incentive system. In the majority of early industrial establishments, however, piece work was not applied, because the tasks to be performed were extremely varied and required workers of higher all-round skill than was possessed by the more specialized piece worker.

With the introduction and expansion of factory production methods during the last half of the nineteenth century, skilled all-round jobs tended to be subdivided into many simple routine operations. This movement was accelerated and popularized by Frederick Taylor and other proponents of "scientific management," and led to the widespread introduction of incentive methods of wage payment. The use of time-study observations made possible a more exact measurement of work effort as a basis for incentive wages, as well as the elimination of inefficient working routines and self-imposed limits on production.

The introduction of complex incentive methods in conjunction with scientific-management techniques was a significant feature of the decade following the first World War. The rapid growth of such industries as the manufacture of automobiles and of electrical products, which were characterized by frequent style and model changes and continuous improvement in process and equipment, made necessary more detailed attention to production and efficiency problems. The time-study staff became a regular part of large factory operations. Many companies, both large and small, hired outside engineers, each of whom had developed his own particular type of incentive system.

The installation of some of these plans was accompanied by thorough reorganization of factory production along more efficient lines, with the result that the incentive system increased production and earnings without marked increases in work effort on the part of the employees. In other cases, incentive systems were imposed on existing inefficient management methods, and such savings as were made in labor cost resulted only from speeding up of the workers. No matter how thorough the original installation, inequities and confusion frequently developed after the engineer departed and the local management was left to carry on a complicated system, the essentials of which were only faintly understood in some cases.

Prevalence of Incentive-Wage Plans

There is considerable variation in the extent to which incentive-wage plans have been adopted in the different industries. This may be due to the nature of the work performed in the several industries or trades, to the diverse attitudes of management, or to the resistance or lack of resistance to incentive wages by the workers and their unions. The following indicates the prevalence of incentive wages among 26 selected industries.

*Prevalence of Incentive Methods of Wage Payment Among Production Workers in Selected Industries*¹

<i>Slight</i>	<i>Moderate</i>	<i>Substantial</i>	<i>General</i>
Building	Aircraft	Electrical equip-	Clothing
Chemicals	Ammunition	ment	Coal mining
Explosives	Automobile	Flat glass	Gloves
Nonferrous smelt-	Leather, luggage,	Steel	Hats and milli-
ing and refining	belting, etc.	Textile	inery
Printing and pub-	Machinery		Hosiery
lishing	Machine tool		Rubber
	Meat packing		Shoes
	Nonferrous mining		
	Pulp and paper		
	Shipbuilding		

The construction and printing industries are outstanding for the almost complete absence of incentive-wage systems, owing in large part to the opposition of the unions. Some paperhangers and lathers are on a piece-work basis, but most of the building-union constitutions forbid incentive methods of wage payment. Very few union printers work under incentive plans although a few of the large non-union publishing houses pay on a piece-work basis. The International Typographical Union recently adopted a constitutional provision prohibiting its local unions from accepting piece-work or other incentive payments in their new agreements.

The Pacific coast shipbuilding agreement forbids piece-work or bonus-wage systems, but incentive-wage plans are prevalent in the large shipyards on the Atlantic coast. Bonus systems are prohibited in Government navy yards and arsenals.² In aircraft manufacturing, incentive methods are confined to a few plants in the eastern area. The important west coast pulp and paper agreement prohibits incentive plans, although there are bonus plans in a few pulp and paper plants elsewhere.

Widespread changes in methods of wage payments have taken place in the automobile industry during recent years as a result of union pressure. Since 1934 many of the largest units in this industry have changed from piece-work, group-bonus, and other incentive plans to a straight hourly wage basis. Similar changes have taken place in many of the automobile-parts companies. At present less than a fifth of the workers in the motor-vehicle industry are paid on an incentive basis.

In contrast to the automobile industry is the flat-glass industry, where the union has effected a very substantial increase in the coverage of incentive plans and has actively favored the extension of group incentive methods. Whereas most unions are particularly opposed to group incentives, the glass workers' union has favored this form of incentive plan, because production methods peculiar to this industry seem to make such group arrangements desirable. The union's

¹ Excludes clerks, maintenance and repair men, inspectors, designers, packers, truckers, and other special workers in occupations incidental to production. The term "incentive methods of wage payment" includes piece work as well as the more complex premium or bonus systems.

² Since 1914-15 there have been riders attached to the Army, Navy and Post Office Appropriation Acts specifying that no part of the appropriation "shall be available for the salary or pay of any officer, manager, superintendent, foreman or other person or persons having charge of the work of any employee of the U. S. Government while making or causing to be made with a stop watch or other time-measuring device a time study of any job of any such employee between the starting and completion thereof, or of the movements of any such employee while engaged upon such work; nor shall any part of the appropriations made in this act be available to pay any premiums or bonus or cash reward to any employee in addition to his regular wages, except for suggestions resulting in improvements or economy in the operation of any Government plant; . . ." (Public Act No. 441, 77th Cong.)

present policy was arrived at only after full discussion with employers on the question of abolishing all incentive plans in the industry.

In a number of industries where incentive methods of wage payment were established before the workers became organized, these incentive systems have continued under collective bargaining. A large proportion of the employees in the electrical-equipment industry are paid under various forms of incentive systems. Almost all coal is mined on a tonnage basis. In the rubber-tire industry various "point" incentive systems have been widely established. More than half of the employees in the steel industry are either piece or bonus workers. Incentive wages are also in effect in several machine-tool plants working under union agreements.

In several industries practically all the production workers are paid piece rates, the simplest form of incentive-wage payment. Included are the apparel industries—clothing, shoes, hosiery, hats, and millinery—which have long been characterized as "piece-rate" industries.

*Union Reactions Toward Incentive Wages*³

Even though most unions have officially adopted an attitude of opposition to incentive-wage plans, there is a wide divergence in actual practice with regard to them. Most unions adapt their tactics to the current situation in their industry or plant. Some incentive plans have been abolished or modified as a result of union pressure. In some cases the union has cooperated in extending the incentive plan to workers not previously covered by it. A few instances were found in which the union had been successful in eliminating the incentive-wage plan, but later, because of competitive necessity, had cooperated with the employer in reestablishing it. Also, there were a few cases in which the employer, partly as a result of union pressure, had made substantial changes in the type of plan used, without discarding the incentive principle; as, for example, by the substitution of straight piece work for one of the more complicated bonus-type plans.

In general, the attitude of each union can be explained in terms of its past experience with its particular incentive problems, the length of its collective-bargaining relations, and the degree of satisfaction obtained under collective bargaining. Many unions have been able to secure certain controls and restrictions in the operation of incentive-wage plans and thus have eliminated some of the abuses about which workers complain. Where the union has been allowed to participate in the day-to-day administration of the incentive system, many of the workers' fears and suspicions have been removed. Bitter opposition has sometimes changed to at least passive acceptance, if not actual support for incentives, after machinery has been established to permit ready appeal for adjusting rates and job standards which workers and the union consider unjust.

³ The following sections summarize the findings from a study of plans as viewed by workers and their union representatives, made by the Bureau of Labor Statistics during the winter of 1940-41. Eighteen industries were covered, principal attention being given to the textile, shoe, clothing, electrical, steel, auto, glass, and rubber industries. The 65 plants visited were located chiefly in New York, New England, the Pittsburgh area, and the principal Great Lakes industrial centers, with a limited number in the South. Agents of the Bureau of Labor Statistics interviewed national, regional, and local union officials, employers' representatives, impartial arbitrators, and others who had knowledge of the situations. No attempt was made to evaluate the various types of wage incentive systems in the plants surveyed. Rather, the study was limited to worker attitudes toward incentive wages and the specific procedures developed for handling wage rates, production standards, and related problems of incentive-wage systems under collective bargaining.

There are economic factors inherent in certain industries which seem to make piece-work or other incentive plans logical forms of wage payment. Unions in these industries are aware of the problems and have made very little effort to eliminate such plans. For example, piece work in general has been acceptable to unions in the apparel trades because of the importance of manual skill and control, which results in wide variations in individual worker productivity. Thus, there are always sizable groups of faster workers who may feel that a change to time work would cause a decrease in their earnings. In addition, the apparel industries are subject to wide seasonal fluctuation in production and employment. Unions in these industries practice rigid work sharing during slack seasons. The piece-work method makes work sharing possible, since employers are assured a fixed labor cost regardless of the amount of work to be done. Unions realize that without this fixed labor cost per unit of output, very few employers would consent to the rigid work sharing which both the workers and union feel to be desirable in these industries. Also, these unions have adopted a policy of stabilizing labor costs among competing employers. Piece work facilitates stabilization, since unit labor costs may be determined in advance, and do not depend on the relative efficiency of the individual workers or establishments.

Reasons for Worker Opposition to Incentive Wages

RATE CUTTING AND SPEED-UP METHODS

Much of the disrepute of incentive systems among workers is due to the cutting of rates after they are once established for a job. Workers try to increase their production to secure the higher earnings made possible by the incentive system. When, as a result of these efforts, their average earnings become higher than those for similar or comparable work in the surrounding labor market, some employers reduce rates in order to bring earnings back to the competitive level. Workers then find that they have increased their effort and output without increasing their earnings. Another employer practice is to make time studies of the operations upon which rates have been established, and to cut rates if the study reveals that production could be increased. The result may be a continual increase in required individual production, which is referred to by the workers as the "speed-up."

Some workers report that the speed-up has resulted in pushing up output almost to the maximum of human endurance, without substantial increase in earnings. Management representatives in several different plants testified to the importance of the ever-present workers' fear of rate cuts; they reported that production immediately rose 20 to 30 percent in their plants after the management announced a guaranty of piece rates for the duration of the jobs on which they were set.

Guaranties against rate cuts, however, do not entirely dispose of the fear of rate cutting. Efficient management of any plant necessitates continuous improvement in process, materials, and equipment. Workers and unions do not question the employer's right to revise rates on any process which is changed to such an extent as to make the operation easier to perform. But the question arises as to what constitutes actual rate cutting and what, in fact, is legitimate rate

revision. A further complication is the fact that the workers themselves sometimes invent short cuts which amount to a change in process, thereby materially increasing their earnings, only to have their rates reduced when the next time study is made.

Some management representatives maintain that when workers increase their efficiency through their own skill they should enjoy the benefits but that when it is accomplished by eliminating definite elements from operations, rates should be changed because specifications have been altered. In practice, it may be difficult to distinguish management from labor contributions and both of these from changes in specifications. An employer who wishes to make a fair settlement is deterred when his competitors follow the practice of bringing their rates into line with the change in process regardless of how it was accomplished.

In computing workers' pay for their output, the more complex incentive systems make use of formulas that are confusing to most of the workers. The pay is not calculated according to the mere number of pieces produced or the number of hours of work but by means of some special unit such as a "manit" or a "B-hour." Workers claim that the use of a complex formula for wage payment facilitates rate cutting, because actual changes in production standards which affect the unit of measurement may be concealed from them. Whether rate cutting occurs or not, the worker finds it difficult to check the relationship between his pay and his output or effort. Thus, while simple piece rates are often accepted by workers as logical and necessary, the more complicated bonus and premium plans, with their mathematical formulas for determining the workers' earnings, are likely to arouse deep suspicion.

A form of automatic rate cutting takes place in the "decreasing earnings curve" which is an essential part of the so-called "gain-sharing" incentive systems. Inherent in the formulas by which earnings are computed under these plans is the principle that the reward shall be in a decreasing ratio for increased output. These incentive systems are referred to as "gain sharing," because a part of the value of the workers' increased production above "task" is retained by management for efficient supervision and efficient working conditions which theoretically helped make possible the increased output. Naturally enough, workers do not understand the complicated theories behind such sharing of gains between management and labor for increased output, and often refer to the decreasing earnings curve as the "take-away curve."

DISTRUST OF SCIENTIFIC MANAGEMENT

Underlying the workers' fear and suspicion of rate cutting is their objection and uneasiness over a purely "scientific" approach to their jobs. Workers claim that almost any job contains elements which cannot be evaluated by the quantitative, stop-watch technique. They point to unpredictable variations in the quality of materials, in working equipment, and in other conditions surrounding their jobs. They know that every time study is adjusted to include "allowances" for delay, fatigue, and personal time which are arbitrarily determined. They are conscious of the fact that each of the job elements measured by the stop watch is evaluated by the time-study expert on the basis

of his judgment as to whether the worker being timed is a slow, fast, or average worker.

Basically, the workers' grievances against scientific management, especially as practiced in the early days, are attributable to the tendency of management engineers to consider labor as impersonal and as a part of the machine process. Workers feel that they are being treated as abstract "labor," rather than human beings at work, when engineers break down jobs into repetitive operations, study work methods to discover short cuts and more efficient routines, shorten the cycle of operations which each workman is allowed to perform, and emphasize financial reward instead of creative workmanship as an incentive towards efficient production.

Workers' objections to "scientific" wage setting may be alleviated or enhanced by management's approach to the time-study problem. In some plants, no one may become a member of the time-study staff who has not had years of working experience on regular production. In many instances, however, time-study "experts" are employed who have no first-hand familiarity with the jobs they are investigating. The "scientific" determination of working methods and standards by such persons is viewed with suspicion and distrust by workers on the job. Moreover, the impersonal treatment which workers resent is likely to be accentuated when an outside engineering firm is engaged to install an incentive plan. Such a firm is not subject to the controls of personal friendship and community interest which may influence a local plant management.

Workers are particularly opposed to the practices, formerly in widespread use, of employing secret or concealed time studies, or of placing "pace setters" in a department temporarily to get fast timings. These are viewed as instances of employer "cheating" on incentive workers, and they increase the hostility of workers toward all time-study methods.

As noted previously, the more complicated the incentive system, the more opposition it arouses in the workers. To many workers, the very "scientific" nature of the job standards under the complex plans appear merely another means of concealing from them the rate cuts and speed-up of which they complain. Although disagreement over piece rate, bonus rate, or production standard may represent simply a difference of opinion as to what constitutes "a fair day's work for a fair day's pay," the question is often complicated by management's conviction that the workers will not accept facts proved by scientific study and by the workers' feeling that while they are not able to disprove management's technical case they know their own jobs and believe that "the rates are not right."

Effect of Incentive Plans on Efficiency and Employment

Although incentive plans are in general intended to increase worker efficiency, many workers and union officials interviewed during the course of the Bureau's study maintained that they result in an actual decrease in efficiency. Specifically, it was contended that some incentive plans had increased production per worker at the expense of his health and safety, and that in the long run, this did not promote true efficiency. Instances were cited in which the introduction of incentive systems had resulted in an increase in the amount of spoiled

and damaged goods, even to the extent, in some cases, of offsetting the savings in labor cost resulting from the speed-up.

In some piece-rate industries, the workers charge that employers tolerate an inefficient production process because, under the piece-rate system, they are assured a fixed labor cost per unit regardless of individual output. In such cases the workers themselves bear the burden of the cost of inefficiency, since their earnings are directly affected by lowered production.

Related to the problem of efficiency is the lack of effective supervision which prevails under some incentive plans. Advocates of incentives have emphasized how such plans cut supervisory costs because workers have a financial stimulant to maintain and increase production. Although the workers themselves usually enjoy this freedom from close supervision, in some cases it may contribute to lower total plant efficiency, at least over a period of time.

On the other hand, when incentives result in higher per capita output as a result of the speed-up of individual production, the result may be a decrease in employment. Even though expanding business might absorb the increased output, there is an instinctive fear on the part of the workers, based on past experience, that the sum total of jobs has been decreased and that job opportunities have been lost for others.

Frequently, the installation of an incentive-wage system has resulted in an immediate decrease in employment in the plant. The burden of such unemployment is likely to fall on the older and the slower workers who are unable to maintain the increased tempo of production even though the quality of their work may be satisfactory. Under a straight piece-work system slow producers may be retained, since the unit labor cost is not greatly affected. Under the incentive plans incorporating a guaranteed minimum wage or "task," workers are eliminated who do not consistently make their "task" or minimum rate.

Effect of Incentive Plans on Unionization

To some employers, one of the principal advantages of incentive methods is the competitive spirit which is engendered. From the workers' point of view, such competition may lead to bitter rivalries and jealousies and a general atmosphere of tension. This personal friction is enhanced when group incentives are introduced, as earnings of each worker are dependent on the output of the group as a whole. Proponents of group incentives maintain that the group exercises "cooperative self-supervision" because of the attention which faster workers must pay to individuals in the group who fall behind in their work-efforts. However, some of these group incentive plans have been abandoned because of the internal friction created within the group.

Friction engendered by incentives has proved an obstacle to unionization in some plants. Workers reported instances of employer favoritism in the distribution of hard and easy work, and of the encouragement of individual high producers so as to impair the group solidarity which is necessary to effective union action.⁴ The fact that such complaints were heard, even in the highly organized plants

⁴ Frederick Taylor is reported to have said that scientific management makes collective bargaining and trade-unions unnecessary as protection to workers, since under scientific management all shop problems are settled by law and science. (Robert Franklin Hoxie: *Scientific Management and Labor*, p. 164.)

covered by the Bureau's survey, indicates the widespread extent of such grievances against incentives.

In spite of these tendencies which deter union organization, the grievances arising under incentive plans have tended in some cases to encourage organization of the workers. In the plants covered by this survey, at least, unionism was strongly supported by the workers because of their conviction that their unions afforded the surest means of preventing injustices and settling grievances arising from the day-to-day operation of the incentive plans.

Collective-Bargaining Controls

The application of collective bargaining to the determination of wage rates often effects substantial changes in the workers' point of view, even though the same incentive plan remains in operation. The right of union participation in determining rates and standards, the right of grievance negotiation to eliminate specific abuses, together with the safeguards negotiated between the union and the employer, all have the effect of modifying to a considerable extent all types of incentive plans.

When unions once find that incentive systems in their industry cannot be eliminated, at least for the present, most of them direct their attention to collective-bargaining controls which will alleviate some of the workers' grievances under the incentive system. These controls, usually outlined in the union agreement, are of three general types: (1) Specific safeguards which set up certain guaranties and prohibitions on incentive practices; (2) the right of union participation in the adjustment of incentive rates and standards; and (3) in the absence of joint participation, the right to appeal any rate which a member considers unsatisfactory, usually through the regular grievance procedure.

To prevent rate cutting and speed-up, unions attach the most importance to guaranties against cuts in rates after they have been established for a job or operation. The guaranty assures employees that production increases resulting solely from their own increased effort or efficiency will not result in rate cuts which take away the resulting extra earnings. A conditional clause, allowing the employer to change rates when new methods or equipment are introduced, usually accompanies such guaranties.

Guaranteed earnings, in the form of minimum hourly rates for incentive workers, are provided under some types of incentive plans. Union efforts are directed toward raising these minima as high as possible in order to protect workers against wide fluctuations in their weekly earnings as a result of irregularity of work and other causes beyond their control. Another form of protection is the payment of an established hourly rate for time lost through machine breakdown, failure to receive work, experimenting with new patterns or models, etc.

Not yet common, but increasingly a union objective, are guaranties which will assure the average experienced worker a given percentage of earnings over basic rates. To some extent such guaranties reduce the effect of the incentive wage, since workers who reach a certain average efficiency are assured of weekly earnings commensurate with such efficiency regardless of minor fluctuations in daily production.

Specific safeguards in connection with time studies include the prohibition of secret or concealed time studies and employer encouragement of "pace setting" or other practices which workers have come to regard as unfair. In some cases the percentage allowances for fatigue, delay, etc., which must be added to the time allowed for the job performance, are specified in the union agreements. Other agreements outline the conditions under which time studies must be made.

Union Participation in Setting Rates and Job Standards

Some unions consider that their greatest protection under incentive-wage plans is the right of day-to-day participation in the setting of rates and standards on all new or changed models or operations. This form of participation is typical in the clothing industries where piece rates prevail. Such advance participation, of course, does not prevent the union from taking up as a grievance any new rates which, after a trial period, do not enable the workers to equal their previous earnings. Also, day-to-day bargaining over piece rates is no substitute for the regular annual or biennial negotiations over the general level of wages in the bargaining area.

APPAREL INDUSTRIES

In the organized section of the apparel industries, such as those manufacturing men's and women's clothing, hosiery, millinery and shoes, unions have gained very complete participation in rate setting. The development, in the major producing centers, of more systematic price-settlement procedures which protect the workers from the hardships of earlier competitive price setting has done much to make piece work acceptable to them.

In the women's garment industry, the New York Dress Joint Board representing the various craft locals of the International Ladies' Garment Workers' Union has developed a "unit system" of price settlement and price lists for standard operations in the various price ranges as yardsticks to guide actual price making. These yardsticks were drawn up by the union using time-study procedures, but are only informally observed in price settlement. Each craft working under each employer usually has its own price committee which meets with him as often as necessary to settle individual prices. If agreement is not reached in this way, the business agent of the craft concerned is called in; if the deadlock continues the case is taken to the Price Adjustment Bureau for impartial decision. The New York coat and suit industry also uses yardstick tables of prices and follows a very similar procedure. Under the "contracting system" that is characteristic of both branches of the industry, workers were never adequately safeguarded as long as individual subcontractors were permitted to set piece prices. Hence, an essential factor in the present price-settlement arrangement is that jobbers are responsible for setting all prices for their contractors.

In the greater part of the men's clothing industry, piece rates are set within the framework of the Amalgamated Clothing Workers' stabilization program inaugurated in 1939. This establishes minimum total labor costs negotiated between the union and several employers' associations for several basic grades of garments. Stabilization does

not standardize individual piece prices, and each new model in a local shop requires a price list. Ordinarily the price list is drawn up by the appropriate union price expert in consultation with a management representative, but all price lists must have the final approval of the stabilization department, which is located in the national office and is responsible to the president of the union. The stabilization program thus gives complete responsibility in the enforcement of wage standards to the union's stabilization department.

In the full-fashioned-hosiery industry, the majority of employers whose employees are unionized are members of the Full Fashioned Hosiery Manufacturers of America, Inc. The union, the American Federation of Hosiery Workers, has worked out with the employers' association a system of standardizing piece rates for all members through a basic list of piece rates. All changes in style or type of machine and other variations which affect piece rates are included, either in the basic list or as "extras" which are added to the basic rates to make the total piece rate for each operation. The major burden of negotiating piece rates, therefore, does not fall on the individual employer or the local union. A large proportion of the piece rates which arise during the course of a manufacturing season can be determined simply by reference to the established list. All rates which cannot be settled in this manner are referred to officials of the employers' association and regional officials of the union. If they cannot agree, the rates are referred to the permanent impartial chairman for settlement. Temporary rates are often established for unfamiliar work, and either party may request a change in rate if the temporary rate does not prove satisfactory. In the past few years comprehensive studies of individual earnings in union mills have been made by the impartial chairman. These studies provide a constant check, available to both the union and the employers, as to whether or not rates in a particular plant are out of line with those in other union plants.

In the shoe industry, although there is some degree of standardization among competing employers in each locality, there is practically no standardization on a wider basis in the industry. Even within a given locality the union has, in some cases, offered lower piece rates to individual employers who needed additional encouragement to stay in business in that city. In several of the Massachusetts shoe centers covered in the Bureau's survey, piece rates are standardized on the basis of city-wide price lists for each operation, with centralized bargaining over new rates through shoe employers' associations. In these centers the settlement of piece rates on new styles is taken out of the hands of individual employers. The employers' associations have price-settlement experts who negotiate with the business agents of the unions. The basic price lists were drawn up with the impartial assistance of the Massachusetts State Board of Mediation and Arbitration which also arbitrates new rates upon request.

TEXTILE INDUSTRY

In the textile industry the changing of piece rates on new styles and new materials is not so important as the introduction of new methods and new types of machinery. In some textile plants a piece rate is adjusted only at the time a change is made in the work assignment or loom load. This in turn accompanies either a major change

in equipment or the accumulation of many minor changes which causes the employer to ask for larger work loads. This may arise only once or twice in many years of negotiations between the employer and the union. Because of the highly competitive nature of the textile industry, unionized plants must generally follow the work assignments in unorganized plants, to enable the unionized plant to stay in business.

In this industry the union has asked for, and in many cases received, the right to participate in all work-load changes before they become effective. Negotiations for such major changes are often protracted. They may be accompanied by independent research on the part of the union as to work loads on similar equipment in other plants; time studies of the new operations by the union, independent of the employer; trial periods as long as 3 months; and, finally, if a deadlock ensues, arbitration.

In several of the textile cases studied, the union obtained two important concessions from the management before agreeing to a work-load change: (1) That no one would be discharged as a result of "stretch-out" (displaced workers were absorbed on other work throughout the factory); and (2) that no worker would suffer a decrease in earnings as a result of the new assignments. As a matter of fact, actual earnings of workers usually increased somewhat, although piece rates were, of course, lowered as a result of the increased work loads.

OTHER EXAMPLES OF UNION PARTICIPATION

Except for the joint participation in rate setting in the industries just described, there are very few examples of union participation in the determination of incentive standards before they are put into effect. In a few small steel-products plants, where few changes occur in rates and no time-study procedures are used, joint union-management determination of rates has become accepted practice.

In the steel industry, also, there have been instances of union-management negotiations over job classifications and evaluations. In the flat-glass industry the union effected standardization of job classifications between the two largest producers as a result of joint union-management negotiations.

Union participation in some phase of time-study procedure is somewhat more common than actual joint determination of rates. In many plants union representatives are consulted about each time study that is made, and are thus given a voice in choosing the worker to be timed and an opportunity to observe the study in order to insure that normal working conditions are maintained during the timing.

Although there are a few examples of joint rate setting outside the apparel industries, these do not necessarily indicate a trend toward the joint determination of all incentive standards in other industries. Many union leaders interviewed during the course of this study expressed doubt that unions in mass-production industries should accept such responsibility. According to these leaders, the setting of rates and standards is a management function, and the union must remain free to challenge any decision of management. If union leaders participate in setting of rates, the rank-and-file membership may lose confidence in them, should those rates prove unsatisfactory. At the same time, such participation hinders a union official from acting as a grievance agent for workers dissatisfied with rates which he has assisted in determining.

Adjustments Through Grievance Procedure

Most unions have adopted the grievance method as the means of controlling incentive abuses. In many plants in the mass-production industries unions have no other choice, since the determination of rates and standards is performed by a large staff of management experts through elaborate time-study procedure. In such cases the unions have not been able to afford the expense of matching this technical staff with union representatives with similar training.

ADVANCE NOTICE TO UNION OF ALL RATE CHANGES

In several of the cases covered by the Bureau's survey, in which rates and standards are set solely by management, a specified period of notice is given the union before the rates take effect. This allows the union time to negotiate with management through the grievance procedure, if the proposed rate is objected to by workers. The period of such advance notice ranges from 20 hours to 2 weeks. In one case all "major" changes are "cleared" with the union representative, while in another case all new and revised rates must be signed by the union department committeeman before taking effect.

Many employers, however, are reluctant to give advance notice because they feel that the proposed piece rates on new production items or on new machines are always likely to seem too low to the workers until by actual work experience they gain the skill and get into the new routine. It is common practice in some industries to establish piece rates only after production has been under way for periods ranging from a few hours to several weeks. In many plants, however, piece-work rates are established immediately upon the introduction of the new process or change in process, and appeals for adjustment may not be made until after a specified trial period.

PROCEDURE FOR APPEAL

Most union agreements set forth in more or less detail the successive steps in the handling of grievances. Cases involving incentive rates and job standards in most plants are brought up through the regular grievance procedure. The foundation of all grievance procedure is the daily interchange in the shop between foremen and union stewards or committeemen. They must see that prevailing incentive rates and standards in their departments or units are not infringed upon and that guaranties under the agreement are upheld. They must handle and settle, if possible, grievances relating to such matters. In some plants covered by this survey, the foreman has the power to overrule the time-study representative in decisions affecting jobs, timings, rates, or standards in his own department. Thus, foremen are often successful in obtaining the necessary adjustments and corrections in the first instance, eliminating successive bargaining steps and delay.

Most local unions in large manufacturing establishments maintain a paid business agent whose function it is to prepare and present cases to plant management officials. When grievances over incentive rates cannot be settled between the foreman and union committeeman, it is the practice in many companies to discuss them at regular meet-

ings, scheduled once a week or every 2 weeks, between the union business agent and shop committee and the director of labor relations or other management officials concerned with wage rates and production standards. Although it is increasingly the practice to have the union submit grievances in written form, informality seems to characterize the treatment of grievances in most establishments.

Occasionally, special committees are established by the union, or jointly by union and management, to consider particular problems arising in connection with the operation of an incentive system. One large electrical-equipment plant, in order to reduce the burden on the regular union-management grievance meetings, instituted the practice of having small joint subcommittees investigate and report on certain of the more complicated incentive issues.

APPEAL FROM TIME-STUDY RESULTS

In connection with its grievance procedure on incentive-rate cases, unions have sought more complete participation in time-study methods. Usually, this involves the right to post observers when a re-study is made of a disputed rate. Unions thus are able to challenge and, if necessary, carry up to the highest plant officials, any instances of "unfair" time studies. They are able to observe the conditions surrounding the time study, to object if "too perfect" conditions are arranged in such a way as to secure fast timings. Unions may investigate and protest the allowances for personal time, speed and effort rating, and other factors which make up the final timing values.

In rare cases unions have secured the right to make their own time studies in order to check those taken by company officials. Usually, these studies are made by higher union officials who have experience in technical problems of the industry.

APPENDIX

*Some Incentive-Wage Clauses in Union Agreements*¹

AIRCRAFT

The time standards on which the bonus system is based in departments which now have it and in departments into which it is to be introduced shall not be changed to the disadvantage of the employees unless there is a change in method, machinery, tools, fixtures, materials, or design. Improved motions and processes introduced by employees will not result in the change of the standard time so long as the character of the work remains the same. The employer shall consult with the union before putting into effect any changes of standards.

AUTOMOBILE PARTS

Piece-work rates shall be established not later than 30 days after the start of production on any new job; such rates shall be subject to review and negotiation by the union not later than 60 days after start of job. If an operator cannot make out on an assigned rate, the job will be retimed and adjusted if incorrect. If adjusted, the new rate will be retroactive.

In timing all jobs, the time allowed for performing an operation shall be the time necessary for the regular operator familiar with the operation, the tools, equipment, the material provided, and the quality of the finished part up to the standard required by the inspection department, without causing excess scrap, or undue damage, wear of tools and equipment, with operator working at a pace he can maintain day after day without injury to himself or his fellow employees; with such time allowed to replenish the supplies, oil and clean the equipment, and all the details that are necessary and which are expected to occur in the ordinary day's work. Those are classed as contingencies and a percentage shall be added to the time allowed to take care of them. In addition, 10 percent of the time allowed for actually performing the operation shall be added for personal contingencies.

BRASS FABRICATION

The union shall select a committee whose duty it shall be to meet with the representatives of the company from time to time to agree upon and establish any and all piece-work rates on any and all new piece work.

No employee shall suffer any reduction in wages or wage rate in any amount, directly or indirectly, at any time during the term of this contract.

CLOTHING

For the purpose of creating a more general uniformity in an equalization of labor standards within the organized dress industry, the parties hereto agree that all operators, finishers, and pressers shall be employed on a piece-work basis. It is the intention of the parties that each member of the [employers association] shall comply with this provision without any unnecessary delay. Exceptions to this provision may be made by the joint board of Dress and Waistmakers' Union and the association, with the approval of the administrative board.

Place of Settlement

(a) Where a member of the association maintains an inside shop and/or deals with or gives work to contractors, the piece rates shall be adjusted and settled with such member for all of the piece workers of his inside shop, if he maintains

¹ These clauses have been selected as representative of the wide variety of union agreement provisions dealing with piece-rate settlement, time studies, and other features of incentive-wage plans. Although identified as to industry, the clauses are not necessarily typical of agreements for the industry indicated.

one, and all of his contractors' shops at the same time, either on the member's premises or on neutral premises, in the discretion of the member, who shall have the right to exercise his discretion at the beginning of each season. The neutral premises provided for herein shall be selected by the parties hereto and maintained by them.

Price Committee

(b) In the adjustment and settlement of piece rates, the member of the association and/or his representative, a representative of the union, and a representative committee of the workers of the contractors' shops and inside shops involved shall participate.

Earnings Above Minimum

(c) This system of settling piece rates with the jobber is not to increase piece rates in such shops where the workers' earnings are above the minimums provided for in this agreement.

Unsettled Garments

(d) Garments shall be settled before they are put in work. However, workers may work on unsettled garments for the current week, provided that such garments are settled in time so that the workers will receive pay on the next following regular pay day for all work performed on such garments during the week preceding. At the time of settlement of piece rates, there shall be recorded in triplicate on a special form for each style settled, the style number thereof, a full description thereof, and the piece rates for each craft. Each such form shall be signed by the member of the association whose garments are settled, or his representative, and the representative of the committee of the workers. Upon request of either party to this agreement, the administrative board and/or the impartial chairman shall settle the prices on any garments in dispute within 48 hours.

Inside Shop

The same procedure shall be followed in the settlement of piece rates where a member of the association maintains an inside shop and does not deal with any contractors.

Guaranteed Minimum Wages

The employees in the crafts enumerated below working on a piece-work basis shall receive not less than the following guaranteed minimum wages:

Operators.....	\$	per hour
Pressers.....		per hour

ELECTRICAL MANUFACTURING

Piece-work standard rates will be established by time-study analysis of the job or from standards and records of performance, and payment will be made for the satisfactory work done.

No changes in permanent standard rates will be made unless a change has been made in the conditions, methods, equipment, tools, or materials used on the job. The foregoing will not prohibit the adjustment of rates by restudy if the rates are found to be in error or unfair to the worker. Time studies and rates will continue to be made on the basis of fairness and equity and the working capacities of normal operators.

EXPLOSIVES

The parties recognize that in order to increase production in response to the demands of the United States Government, and at the same time to increase the earnings of employees who participate in such increased production, the company has established a "wage-incentive" plan in a number of its departments. The parties further recognize that the wage-incentive plan to the extent to which it is now in operation has been accomplishing its objectives. The company accordingly will extend the wage-incentive plan as soon as the necessary time studies and other data can be assembled to such other operations throughout its plants to which the plan may be applied. The union and all its members engaged in operations to which the wage-incentive plan is extended will cooperate with the company in the establishment and successful operation of the plan.

MACHINE TOOL

Employees assigned piece work or contract work shall receive not less than their hourly rate when assigned such work. Employees so assigned and able to earn more than their hourly rate, shall receive all earnings in excess of their hourly rate.

It is agreed that as, when, and to the extent desired by the company, an incentive plan may be extended to the fitting and assembly departments comparable in character to that prevailing in the machinery, scraping, and painting departments. The union shall cooperate with the employer in working out the same, provided, however, that such incentive plan shall only be put into operation if mutually agreed upon by and between the union and the employer.

RUBBER

All time standards and their methods of derivation shall be made known and accessible to employees concerned and the union.

The union will be advised of any changes in time standards. Employees will be notified of all changes in standards before becoming effective. There will be no reduction in standards without a corresponding change in methods of operation, unless mutually agreed to. Any disputed standard will be given a reasonable trial and, if found unsatisfactory, the complaint will be negotiated as expeditiously as possible. Changes will be retroactive to time of installation of complaint. In no case will they be retroactive for more than 60 days.

Allowed time will be given the workers to compensate for reduction in output as a result of causes over which they have no control, except for mechanical break-down. The latter will be compensated for at the guaranteed rate of pay.

SHIPBUILDING

No incentive work shall be started until after the contract price has been fixed. No employee shall be assigned to incentive work under a contract unless a copy of the contract describing the work is delivered to him in person prior to his commencing work. There shall be no reduction made in the contract price during the progress of the job or after the completion of any job, except when some reduction is made in the quantity or quality of work originally specified in the incentive-work contract and any employee's complaint concerning his incentive contract may be taken up for adjustment.

SHOES

Where timing is required to determine prices on new patterns and new kinds of work, such timing shall be done in the factory by the workers in the particular branch involved. The workers chosen shall be satisfactory to both parties. Such price settlements shall be negotiated upon at least once a week.

Where timing is required, it is agreed that — cents is the standard rate of pay per hour for major skilled operations by workers of average speed, efficiency, and ability. A departure from the —cent timing rate shall be made when such is required in fairness to both parties.

Prices for outside and trimming cutting shall be figured according to the base prices and extras of the individual patterns and units involved as established by agreement between the union and the firm, and such patterns shall be uniformly interpreted in accordance with the standards now prevailing in a majority of representative factories in the New York shoe industry, to be agreed on between the parties.

The rates of pay or piece-work prices shall be determined by both parties on the basis of prevailing standards in the shoe industry of New York. In the absence of any trade prices to serve as a basis for comparison, and timing is necessary to determine the price, such timing shall be done by the operator after acquiring sufficient experience to the mutual satisfaction of both parties.

All prices for new work or revised prices because of a change of operation, shall be retroactive as of the date when such work came through the various departments of the factory.

STEEL

It is recognized that changing conditions and circumstances may, from time to time, require adjustment of wage rates or modification of wage-rate plans because of alleged inequalities, development of new manufacturing processes, changes in the content of jobs, or mechanical improvements brought about by the corpora-

tion in the interest of improved methods and product. Under such circumstances the following procedure shall apply:

When a bona fide new job or position is to be established—

(a) Management will develop an appropriate rate by the regular procedure in effect in the corporation for its industrial engineering and industrial relations activities, including the employment of job evaluation, and accepted industrial engineering methods.

(b) Such procedure having been conformed to, the rate may be established by management to cover the job or position in question. The union grievance committeeman or committeemen representing the employee or employees to be affected shall be informed by management in advance concerning such rates. The rate having been established may subsequently be subject to adjustment as provided in paragraph (c) below.

(c) If, after a reasonable trial period following the establishment by management of the rate or rates for new jobs or positions, grievances are alleged by either employees or management concerning such rates—which grievances cannot be satisfactorily adjusted by mutual agreement—the question as to the equity of such rates in relation to the plant rate structure and the requirements of the job or position as established by sound industrial engineering procedures may be appealed to an impartial arbitrator in accordance with the provisions of section 7, "Adjustment of Grievances," but no formal grievances may be presented under section 7 until a reasonable period has elapsed since the installation of the rates and the operation of the equipment to which the new rates apply, which period will permit of study and adjustment, if necessary, of the rates of the varying conditions of operation attendant upon the establishment of the new operation to which the new jobs or positions apply. It is recognized that the term "reasonable period" may vary with the type of operation or equipment to which the new rates apply, but shall not, unless by mutual agreement, be construed to apply to a period in excess of 12 months.

STEEL PRODUCTS

Piece-work rates now established shall remain in force and effect for the term of this agreement, providing, however, that upon the installation of new equipment or changes in operations which do not substantially change the nature of the jobs, the company agrees that under any rate adjustments, the scale of earnings shall be maintained at least at the same level as prior to the date of this agreement, provided, however, the employee puts forth the same reasonable effort in performing his job as heretofore. Disputes as to new piece-work rates shall be subject to arbitration. All employees paid for working on piece-rate basis shall, in addition to their earnings at the established piece rates, be paid an additional 12 cents per hour for each hour worked on piece work.

It is mutually agreed by the parties hereto, that all existing bonus arrangements now or heretofore in effect will, after careful study and analysis, be adjusted up or down or eliminated upon an equitable basis.