

**UNION POLICY
AND INCENTIVE WAGE
METHODS**

BY

VAN DUSEN KENNEDY

**SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY
IN THE
FACULTY OF POLITICAL SCIENCE
COLUMBIA UNIVERSITY**

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PREFACE

THIS volume is an outgrowth of a study conducted under the auspices of the Division of Industrial Relations of the United States Bureau of Labor Statistics. The writer was employed as a representative of the Bureau during the investigation and did the bulk of the field work. The subject for study was selected partly as a result of a suggestion made originally by directors of research for several of the major unions. They pointed out that scientific management and, in particular, the problems of wage incentives have received very little first-hand study for the avowed purpose of discovering how these methods actually affect workers and describing labor reactions in terms of worker behavior and union practices. The union representatives noted also that due to the extension of collective bargaining organized labor is certain to have more and more to say about such management methods and that this will require kinds of knowledge and understanding which are all too rare at present on both sides. They felt that there was need for a study under impartial auspices both to call attention to the problem and to gather information which would be indicative of the experience of various unions in different industries and which would be available for study and comparison by managements and individual locals and national unions.

In addition to the initial suggestion from union representatives there were other considerations which impelled the writer to undertake this investigation. For one thing, it is a subject which can throw light on the crucial relationship between unionism and industrial efficiency. Furthermore, it seemed to justify study at this time because of the increasing importance that wage payment methods are acquiring in the sphere of industrial relations. The rapid growth of labor organization and its spread into industries in which the application of scientific management hitherto had faced no hindrances other than questions of theory and technique suddenly raised a whole new set of prob-

lems so far as management was concerned and presented unions with a new range of difficult problems. In other words, although incentive payment systems have long stirred worker animosities, it was not until recently that they have had to withstand the challenge of criticism, modification, and control by unions in the large scale industries. The significance of the resulting conflicts lies in the fact that incentive wage methods frequently become the battle ground on which the differing points of view of capital and labor in regard to the fundamental questions of labor cost, wage policy, and efficiency must be resolved. The conflicts are serious because industrial management has come to believe on so wide a scale that incentive plans and scientific management methods are indispensable means to volume production at low cost, whereas organized labor often finds these methods at odds with its own basic ideas about wage payment and security for workers.

Most of the research work for this study was completed prior to the entry of the United States into the war and the writing was first completed before the war period had advanced very far. During the interval which the author allowed to come between writing and publication union agreements expired or were changed, wage control was made national policy, and other important changes and developments occurred in the industrial relations scene. It would have been desirable to bring this report up to date on all these happenings but it was not possible. Chapter IV has been revised to cover certain aspects of the war period including a brief discussion of the repercussions of the national wage stabilization program on incentive wage questions. One of the most significant developments from the viewpoint of this study was the appearance in 1943 of the *U.E. Guide to Wage Incentive Plans, Time Study and Job Evaluation* issued by the United Electrical Workers—CIO. It is a most timely and useful little volume and it is somewhat ironical that lack of just such a treatment of the subject was one of the considerations which led to this investigation. In the main, however, the following chapters deal with the situation as it was

before our entry into the war. Although the defense program was having its effect, it may be said that, in general, the findings of this study apply to peacetime conditions.

As already noted, the writer carried on the field research for this study under the auspices of the United States Bureau of Labor Statistics. As an accredited representative of the Department of Labor he enjoyed the very great advantages of ready access to union officials and management representatives in the field as well as the guidance and assistance of Bureau personnel and the use of Department facilities in Washington. However, the factual findings as reported in this volume and the interpretation given them are entirely the responsibility of the author. In accordance with the policy of the Department of Labor the names of persons interviewed and of plants and companies visited must remain unidentified. Otherwise the author has been at complete liberty to write up the material as he chose. A summary of the study's findings prepared in the Industrial Relations Division may be consulted in the form of an article entitled "Incentive-Wage Plans and Collective Bargaining" in the *Monthly Labor Review*, July, 1942, Vol. 55, No. 1. The same summary with the addition of illustrative clauses from labor agreements appears as Bulletin No. 717 of the Bureau of Labor Statistics.

Acknowledgments. In addition to the formal advantages of my association with the Bureau I wish to acknowledge my personal indebtedness to Miss Florence Peterson, Chief of the Industrial Relations Division, who directed the study and who was willing to undertake the experiment of combining a piece of doctoral research with a project of her own Division. I am under great obligation also to Fred Joiner of the Division staff who was in immediate charge of the planning and conduct of the study, who participated in some of the field work, and whose helpful judgment and counsel were continuously available to me during the writing of this report. Professor Paul F. Brissenden has been a sympathetic, conscientious, and most helpful adviser throughout the writing process and Professor Leo Wolman was

kind enough to read and make suggestions on the manuscript. I wish I might thank again, also, the many union and management representatives of all ranks who responded so generously to my curiosity and whose information and opinions furnished the basic material for this volume.

DETROIT, MICHIGAN
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CHAPTER I

INTRODUCTION

Scope and Method of the Investigation. The investigation upon which this report is based was confined entirely to the manufacturing industries. In allocation of time and number of field visits the shoe, textile, electrical products, flat glass, steel, rubber, automobile, and clothing industries received the major share of attention. In addition, some inquiry was made into at least one illustrative bargaining situation in each of the following industries: leather, hosiery, millinery, machine products, paper products, aluminum, meat packing, farm equipment, and furniture. In nearly 60 field visits to individual plant or local bargaining situations information was obtained through interviews with direct representatives of both the management and the union. Information was also secured regarding a considerable number of additional situations through interviews with local union representatives alone and from regional or national union officials.

The above list naturally does not exhaust the industries in which wage incentives are found or are a bargaining problem, even within the manufacturing field. Shipbuilding, some of the food products industries, and several smaller fields such as the glass bottle, pottery, and upholstery industries are other manufacturing lines which could well be included in a study of incentive wage problems and unionism. Organized labor has also been confronted with the incentive wage issue in such non-manufacturing industries as mining, transportation, and retailing. However, since time limitations necessarily restricted the scope of the study, non-manufacturing industries were excluded on the grounds that they present a distinctive set of incentive payment problems and because it is in the manufacturing field that the incentive payment principle has had its most characteristic industrial application.

The omission of particular manufacturing industries was not by design so much as it was the result of the methods employed

in selecting individual cases. Selection was guided in the first place by the aim of studying cases wherein incentive wage questions have bulked large in the collective bargaining picture or where there was something of special interest in union policies or joint relations connected with these methods. In locating such situations reliance was placed on the knowledge and counsel of national and regional union officials, on the evidence provided by union agreement provisions, and on the information found in miscellaneous written sources. It is quite likely that this method of selection has resulted in overlooking more than one case worth studying, but considering the objectives of the inquiry it seemed the only practical procedure.

It might have been desirable, if possible, to select situations so that there would be an equal number involving A.F.L. and C.I.O. unions, respectively. However, inasmuch as C.I.O. unions predominate in manufacturing industries they were involved in the great majority of cases studied. As no perceptible differences in policy and practice were noted between locals affiliated with the two organizations when faced with similar problems, no attempt is made in this report to draw comparisons.

In the field work stage of this project information was obtained almost entirely through interviews. The procedure followed in the industries of main concentration was to visit first the national office of the principal union. From the research director or some other officer was secured as much background information as possible pertaining to experience with incentive methods in collective bargaining in that industry, a presentation of the official union position and policies, if any, on incentive payment, and recommendations with respect to local plant situations. In the case of a number of unions like the Machinists, the Brotherhood of Electrical Workers, the Auto Workers, and the Textile Workers a good deal of helpful information was obtained as well from officials in regional and district offices. In each local situation an effort was made to see a responsible union representative who was familiar with the day to day negotiation of incentive wage problems. Frequently it was a busi-

ness agent or the president or secretary of the local; in some cases it was a joint board official and in others a shop chairman. At some of the larger local union offices the interviews were supplemented with examination of files on grievance cases or minutes of union-management conferences dealing with issues relating to incentive methods.

On the employer side a similar effort was made to interview a representative who could both speak for management and give a first-hand account of bargaining relations. This official was often a personnel director, but he might be a mill agent, a plant manager, an efficiency engineer, or a company executive. In situations in which an employer association was active representatives of such organizations were interviewed also. Arbitration officials were consulted in the few cases where such machinery was regularly resorted to in incentive wage negotiations.

Prior to the actual field trips a comprehensive interview schedule was prepared comprising questions which covered every aspect of the subject of investigation. The schedule was not actually used in the conduct of interviews but the substance of the conversation was written up on the prepared form immediately following each interview. In practice it was found impossible to keep interviews to a standard pattern largely because of the differences between individual cases. They were conducted in a very informal manner and frequently, depending upon the situation under discussion and the information and viewpoint of the person interviewed, the discussion was permitted to concentrate on particular features of a case.

As has been remarked already, the selection of cases for study was guided in part by evidence drawn from union agreements. A large number of agreements from the current files of the U. S. Bureau of Labor Statistics were reviewed in connection with the investigation. They included agreements from a wide range of manufacturing industries but most were from industries in which the field study was concentrated. Any discussion of union policies and practice must draw heavily on the

material to be found in specific agreement provisions and a later chapter will be devoted to an analysis of a wide variety of clauses dealing with incentive methods. A considerable body of additional literature and source material has been consulted in an effort to fill out the picture gained from the case studies and from agreements. There is very little systematic written work on the industrial relations problems of incentive wage payment although there is a quantity of industrial management and personnel literature dealing with wage methods and time and motion study from the management viewpoint. There appears to be a growing recognition in these quarters of the importance of the personnel and employee participation aspects of scientific management techniques, but even so the labor problem is viewed as primarily a part of management's administrative task. It seems curious too and worth noting that of the few writers in the field of industrial relations itself who have dealt with this type of problem the majority have given their treatments a management rather than a labor or union orientation. Nor has organized labor done very much to remedy the dearth of analytical material on this topic. One must turn to convention proceedings, to the labor press, and to the very occasional speeches and writings of the few labor spokesmen who have dealt with the subject for indications of labor's official position.

Character of the findings. A few comments should be made regarding the interpretation and application of the findings reported in the following chapters. It is to be remembered that these findings are conditioned by the size of the sample, by the methods that were employed, and by the nature of the subject matter itself. For reasons already given the investigation has drawn exclusively upon experience in manufacturing industries. Even within the manufacturing field, however, it was not possible to cover all industries and the number of separate cases which could be investigated was relatively small. This properly raises questions concerning the representativeness of the findings. These questions are posed even more sharply by the methods that were used to select cases. No effort was made to secure

a representative sample. On the contrary, by consultation with union officials and study of agreements and other sources, situations were sought out which met the purposes of the study but therefore were not typical of industry as a whole.

It is felt that this procedure has been justified by the general objective of the study which is to discover how organized labor is dealing with the problems presented by incentive wage payment not only in the typical or average unionized plant but in those cases where joint relations are of longer standing and are more fully developed or exhibit features of special interest or where unions have gained an unusual measure of participation. It is hoped that this focus on what are often the more advanced and progressive examples of collective bargaining will provide some indication of the ways in which industrial relations may and should develop in the industries and plants where unions are just making a beginning on the incentive payment problem. From this point of view it is not so important to be able to determine what the general pattern of union experience and policy is in industry as a whole as to secure illuminating examples of specific practice. But the warning should be expressed that as a result of this slant the subsequent discussion will tend to exaggerate the prevalence of unusual union practices and of more advanced forms of union participation and satisfactory bargaining relations in general so far as incentive wage and time study matters are concerned.

Another type of limitation in the data is that which is inherent in the interview method, especially as it was used in this field study. No attempt was made to gather information suitable for quantitative analysis and time did not permit careful checking of information by a series of interviews in each situation. Thus the basic interview material reflects in some degree whatever unreliability, prejudice, ignorance, and lack of understanding characterized the opinions and information of the different individuals who were the informants in each case. It reflects also, of course, the predilections and limitations which mark the approach to this subject of the interviewer and writer. It

may be noted in addition that the union people interviewed were almost invariably officers of their organizations and it may be expected that their statements sometimes reflected the strong opinions and zealous purpose which are often attributes of union leadership. There was little opportunity to supplement their reports with interviews with rank-and-file members or with non-union workers. In any case it was the union, and the official union, point of view that was desired. What is more, it seems important to this student to get and use information and opinion on a topic of this kind from the people who are, after all, responsible for the attitudes, practices, and bargaining conditions that are being studied. The question of the extent of the discrepancy between official union and ordinary worker sentiment on incentive wages—a favorite argument of employers—is left to another inquiry. There are certain factors which help to offset the unreliability of the interview material. Since it was a bargaining situation in every case there were at least two sides involved in each and the testimony of one could be weighed against the other. Again, as regards most of the cases the writer was also the interviewer so that in the final analysis the interview material has been sifted through his knowledge and judgment of the personalities and particular circumstances which colored it. Frequently, also, it has been possible to check local interviews with information gained from outside union officials, grievance records, agreements, and similar sources.

Just as the scope and method of this inquiry impose limitations on its results, the very nature of the subject matter itself conditions the manner in which those results can be presented. It did not take many plant visits to reveal the diversity which characterized not only the economic settings but the labor practices to be studied. At the individual shop level organized labor seems to present less of a united front on incentive wage questions and related issues of efficiency and management policy than is frequently supposed. This lack of uniformity is caused in large part by the differences in the conditions under which unions formulate policies in different industries and plants. Be-

cause they bear so directly on the findings of this study it will be well to review some of these variables.

The underlying economic facts which shape the workers' fortunes in each plant and industry are among the most important determinants of worker attitudes toward wage methods. Among these conditions are the profit record, the intensity of competition, the seasonality of production, and the relation of labor costs to total costs. Among the different plant situations that were examined there was the widest possible variation in these conditions. Since a company's incentive wage policy, which includes its ability to be liberal in dealing with worker grievances, is closely bound by its cost situation, a union's satisfaction with that policy and its prospects for modifying or controlling it are greatly dependent on these conditions.

The variation in management methods from plant to plant and industry to industry is at least as great as in economic conditions. The most obvious contrast is that commonly found between management practice in large scale durable goods industries and management in some of the highly competitive consumers goods industries. It may be said that payment is by results in a large electrical apparatus company where the incentive plan is part of comprehensive and adequately staffed wage administration activities and also in a small shoe shop or odd-job silk shop where the conduct of an uncertain business is centered in the hands of an owner-manager who never heard of scientific management. But many of the problems for organized labor in each case are so different as hardly to be comparable. Even within the ranks of heavy industry itself the development of modern management techniques and principles has been extremely uneven, particularly as between large and small enterprises.

A third factor of importance is the wide variation in the kinds of productive processes and machine equipment characteristic of different industries and hence in the nature of workers' jobs. In one instance, workers may be little more than attendants at an automatic line operation possessing little independent control

over their volume of output. In another they may be skilled manual workers with output dependent upon individual effort. Where one plant will produce a variety of items requiring many different occupations and frequent changes in jobs and rates, another will concentrate on a few staple products necessitating fewer occupations and infrequent job changes. The significance of these considerations is that one situation is likely to lend itself far better to the use of incentive methods than another and that one will produce inevitably many more occasions for conflict than another.

A fourth cause of variation in the findings is the diversity which exists among the bargaining situations themselves and which is due in part, of course, to the variables already mentioned. The differences may be organizational. In many cases the union is an industrial local covering an entire plant; elsewhere it may be a craft group, or a joint board or council; and it may bargain for workers in a single plant or in several plants or companies. There are wide differences in the bargaining strength and financial resources which different local unions can bring to bear. On the management side the bargainer may be a single plant management, a company with several plants, or an association of employers. Bargaining situations vary also according to the previous history of their relations, according to the temper and social and economic outlook of the participants, and according to the qualities of leadership on both sides.

These several types of diversities are familiar enough and are sufficient reason why really intensive collective bargaining studies should be made by single industries. The question here is whether, despite these diversities and the other limitations that have been mentioned, it is possible to make observations or draw conclusions of wide applicability concerning the policies and practices of unions in manufacturing industries with regard to incentive wages. It will be seen that some generalization is possible, for, regardless of the arrangements or circumstances under which incentive wage payment takes place, the crux of the workers' problem is the same. Their concern is to prevent

this type of payment being used as a means of exploitation, to guard against reduction of incentive rates, and to protect and better their earning standards. In fulfilling these purposes certain common principles and practices have been developed by unions which can be identified as such. At the same time it remains clear that, in keeping with one of the objectives of the inquiry, it will be necessary also to give attention to practices and procedures that diverge from the general pattern and that may be found only in occasional instances.

It is hard to set the proper boundaries for an investigation of this nature and to confine the discussion within those bounds. The application of the incentive principle to wage payment raises so many issues and the numerous procedures associated with incentive systems encompass so many questions of management and industrial relationships that there is no clearly defined separation between the main topic and related questions. Yet it was imperative that this inquiry be strictly limited even though the limits be arbitrary in some respects. Thus it is not by any means an examination of the whole range of problems which scientific management creates for organized labor. For example, time study, which is central among those problems, is considered in this report only insofar as unions have dealt with it in conjunction with incentive wages, although it is a common management tool regardless of wage method and although what is said in the report holds true for the union reaction to time study in general. Another fairly artificial exclusion was the omission from the field study of plants operating on hourly rates where the problem for the union was production standards rather than incentive rates. The problems are similar in many ways but it was expedient to consider production standards only where they emerge as an issue in an incentive wage situation or immediately following the elimination of an incentive plan.

Nor is it the purpose of this report to make an appraisal of management techniques as such. A critical evaluation of the various incentive schemes in use and of related time study procedures, especially if done with an eye to making such informa-

tion readily available to labor, would be an exceedingly useful piece of work. Several union officials have indicated the need for this type of information within the movement. Helpful too would be some documented findings on the actual effectiveness of incentive methods in increasing industrial efficiency. Brief interview studies can serve as a basis only for speculative opinions on these topics.

Personal viewpoint. A report based so largely on personal evaluation and interpretations of material derived from informal interviews and dealing with controversial topics calls for some declaration of the writer's own predilections and point of view. It should be noted then that this writer welcomes the increasing use being made of the resources of psychology and the study of social relations in general to throw light on the problems of industrial relations. He regards as an important part of this approach its emphasis on the need for thinking of the worker in industry as a cultural as well as economic phenomenon and for understanding his total performance and behavior as a whole determined by many interdependent and interrelated factors.¹ There is nothing particularly new about bringing a psychological approach into the study of collective bargaining. The question is rather as to the nature of the psychological approach. When the time which workers spend in the shop and factory is viewed consistently as but one segment in the social organization of their lives and their reactions to conditions of work as a related part of their total behavior it has very real implications for the interpretations one places on attitudes and practices that occur in collective bargaining. As this is the perspective which the writer has tried to maintain in reporting and analyzing the results of his case studies some mention should be made of certain implications it has for these findings.

¹ The approach referred to here is well exemplified by the researches and the interpretation of research one finds in such works as Elton Mayo, *The Human Problems of an Industrial Civilization* (New York: The Macmillan Co., 1933), and F. J. Roethlisberger and Wm. J. Dickson, *Management and the Worker* (Cambridge: Harvard University Press, 1939).

Proceeding from the premise that the behavior of workers is governed by many interacting determinants it follows, to oversimplify the point, that a given policy or practice seldom can be traced reliably to a single isolated cause or motive. Especially is this true of the behavior of workers in concert in the form of a union. Thus, when a union or group of workers attempts to eliminate or change an incentive plan or is found to be restricting output it is not likely that the explanation is any single grievance or objective. Nor is the easing of conflict or the satisfaction of worker objections to be achieved by any single panacea. The writer strongly affirms the conclusion of the National Research Council's Committee on Work in Industry: "Studies of the conditions of work in industry, like studies of sick people, cannot be safely pursued to the point of diagnosis without taking account of all the different kinds of factors (physiological factors, psychological factors and all sorts of social factors)." ² From this point of view it is meaningless also to look too closely into the merits or validity of the arguments, reasons, and charges employed by workers and union leaders or to take too literally these arguments as explanations of their views and actions with respect to incentive wages and time study. As Roethlisberger and his associates concluded about the group of workers they studied so intensively: "The ideology expressed by the workers was not based on a logical appraisal of their situation, rather the reasons given for actions were rationalizations of group sentiments." ³ It is enough that they think in terms of these arguments whether they stand up under impartial analysis or not; the fact that incentive methods are criticized and provoke certain reactions by unions is more important than the criticisms themselves. For instance, in many plants visited union representatives expressed the apprehension of the men that piece rates or bonus rates would be cut if they pushed their individual output to high levels despite the assertions of management that

² National Research Council, Committee on Work in Industry, *Fatigue of Workers* (Reinhard Publishing Co., 1940), p. 12.

³ Roethlisberger, *op. cit.*, p. 531.

rates had not been cut under such circumstances for many years. It is not enough to dismiss this attitude as inevitable suspicion holding over from an earlier period or to condemn the resulting earnings guarantees exacted by the union as unwarranted restrictions on efficiency. The workers may be acting on the basis of sentiment rather than fact but the sentiments are nonetheless symptomatic of very real imperfections in the worker-management relationship.

Another aspect of this point of view is that it plays down the economic motivation of the worker in his work relationships or rather that it lays greater stress on the other kinds of motivation that are present. This shift in emphasis frequently throws a revealing light on union response to management efforts to stimulate productivity by offering economic rewards. Non-financial motives or penalties having the opposite effect often prove just as compelling. It is such non-economic considerations that lend added significance to the matter of union participation in the administration of wage incentives. From this viewpoint participation is of more than academic interest as a technique of collective bargaining; it is something to be encouraged as a means of enlisting worker response and providing opportunity for self-expression that may otherwise be denied in the work relation.

For the writer the approach typified by the foregoing considerations has merit because it insists that incentive systems and time study, which are primarily technical management tools, must cope with human relations as well as with technical problems. It helps also to explain much of the diversity of worker and union behavior in relation to these techniques and much that otherwise would seem inconsistent and irrational.

CHAPTER II

INCENTIVE WAGE SYSTEMS AND TIME STUDY METHODS

As previously stated, it is not one of the purposes of this study to inquire into the nature and managerial effectiveness of various incentive schemes and methods of wage determination. Nevertheless, a summary description and comparison of the principal types of plans is needed by way of introduction. This is especially true in view of the widespread ignorance of such subjects as incentive payment, job study methods, and their importance as labor problems. Even workers and union officials working under incentive systems were found by interviewers to be unacquainted in a surprising degree with the detailed aspects of payment systems and time study. This lack of factual knowledge and understanding often proves a disadvantage to a union in conducting negotiations. It would seem to be a factor also in the hostility so often displayed towards incentive methods by workers.

Nature and Development of the Incentive Wage Principle. American business and industrial enterprise has taken the lead in exploiting the incentive idea in most of its aspects. But in dealing with labor industrial management has relied most heavily on financial incentives. Wage incentive plans are the only type of incentive with which this report is concerned.

Payment by results is not a method of rewarding labor peculiar to modern industry. It has been in use as long as labor has worked for wages. Nevertheless, there are good reasons why it is often thought of as a comparatively recent development. It is modern management that has realized and fully exploited the possibilities in the rather commonplace fact that wages are not only compensation for labor already performed, but an inducement to future effort. Modern production methods involving sub-division of jobs into mechanized, repetitive operations on a volume basis are particularly adapted to the payment of wages

according to output rather than by some unit of time. Moreover, the numerous wage incentive systems found in industry today are distinctly the creations of modern management engineering. The same considerations that tend to identify payment by results with modern industry also suggest that it is especially characteristic of American industry. The scientific management movement originated in this country and has flourished most widely here. Its techniques, including wage incentives, together with the technologies of mass production are responsible for the general belief that American enterprise represents the epitome of efficiency in production.

In addition to being an established management technique, payment by results is an idea which is an integral part of American business thinking. It derives from and is in complete harmony with those other basic principles—competition and the profit motive—and employers are accustomed to defend it just as jealously.¹ A statement by Charles R. Hook of the American Rolling Mill Co. is typical. He asserted that “the incentive system of production and service seems to be in a bad way. If you take away the hope of reward, you will destroy the incentive that brought to this country higher standards of work and living conditions than to any other.”² The official employer justification of incentive methods of payment has changed little since they first came into use. It is argued that some form of payment by results is the most effective way of enabling workers to share in the gains resulting from advancing productivity and industrial progress. It is also contended that such forms of payment enable the industrious, capable workers and the slow or

¹ Incentive payment is in harmony with these principles in the sense that a financial inducement to produce is offered both the worker and the enterpriser and that in each case the reward is promised to the hardest and most efficient worker. The conformity even carries over into the fact that the principles frequently do not live up to the theory and that incentive wages, like profits, do not always go to the individual who is able to produce the largest volume or the best quality.

² From an address before the National Association of Manufacturers in New York City as reported in the *New York Times*, Dec. 6, 1941.

lazy workers alike to earn according to their merits. Thus incentive wages are held to be more equitable than hourly wages in two different ways. The logic of this case would appear to be unassailable. As a matter of fact, some union leaders and certain groups of workers are persuaded by it and are prepared to defend it on condition that the bargaining rights of the workers are preserved. Large groups of organized workers, however, remain at least partly unconvinced by this logic and their reasons will be considered in subsequent chapters. An additional consideration by which employers justify incentive methods is the fact that in most cases an incentive system provides management with more adequate and precise labor cost data for purposes of prediction and control than would hourly wages.

Opponents of incentive payment often charge that employers use incentive plans simply as an excuse for poor management and that the same results in labor productivity could be achieved by methods and policies less detrimental to workers. Even though one be prepared to find truth in this claim he must acknowledge also that, considering the deep roots which incentive methods have in industrial practice and thinking, the question of any immediate wholesale change to alternative methods is somewhat academic.

An incentive method of wage payment may be defined broadly as any arrangement for compensating labor by which the rate of pay is related to output or performance on a fairly direct and continuous basis. Under such a definition there are bound to be borderline cases which are not regular incentive schemes nor yet straight day work. The crucial question is to what degree earnings are immediately and directly dependent upon performance. In any case, nicety of definition is not important; what matters is how the various plans affect the workers and how the latter react to them. Personnel men stress the positive aspects of these methods, the way they foster individual initiative and ambition and give concrete rewards for extra effort and skill. However, just as fundamental to the incentive payment idea is its reverse aspect—the dissuading of workers

from a lessening of effort by forewarning them of a decline in earnings as penalty. There is reason to believe that to a great many workers the concept, piece work or bonus system, signifies a system of penalties rather than inducements.

The earliest form of financial incentive was the simplest and most literal carrying out of the idea of payment by results—straight piece work. It is probable that it was not designed for its incentive effect but was the only way of compensating labor prior to the factory system when production was confined largely to the home and was conducted on an irregular basis. An official of one of the garment unions has suggested that the precedent established during the days of the homework system is one reason for the strong hold of piece work in these industries. The difficulties encountered by employers in adjusting rates under piece work to fit the job changes and tremendous increases in productivity per worker that accompanied the industrial revolution are not part of this story, but the part these struggles and rate reductions played in building up labor's animosity towards payment by results can be imagined.³

Piece work remained the alternative to payment of time rates until comparatively recent times. The next advance in the incentive wage form came with the development of efficiency wage systems. The basic features which distinguish these plans as wage-payment methods are that standards of performance are established, either by rule-of-thumb methods or by systematic job study techniques, and that the savings resulting from production over standard are distributed between management and workers by a predetermined formula. This kind of wage-payment method came into prominence with the beginnings of scientific management and has been closely identified with this movement ever since. It is the scientific management idea applied to wage payment that has given modern incentive systems their basic characteristics, i. e., the gearing of wage

³ H. S. Person's article, "Methods of Remuneration," in the *Encyclopedia of the Social Sciences* contains a brief but enlightening discussion of the development of wage incentives.

rates to work standards which have been set by thorough job study methods. Ideally these standards are set only when the best and most efficient working methods and conditions have been determined and put into effect by experiment and study.

There are some who distinguish between piece work payment and incentive payment and who would reserve the latter term for the efficiency systems just referred to. One purpose of such a distinction is to contrast the motives underlying the respective methods. In the case of piece work the motive, according to this theory, is to pay full measure for work performed. In the case of incentive plans the idea is to stimulate extra effort by offering premiums and if that effort can be attracted by offering something less than full payment, so much the better. It is well to keep in mind that much ingenuity has gone into devising payment schemes that will most effectively induce workers to produce more and that this aim has often overshadowed the principle of fair payment. It suggests also that "payment by results" is not a strictly accurate characterization of all incentive plans. Nevertheless, this is hardly a sufficient reason for not calling piece work an incentive method. Piece rates can and frequently do have as much incentive effect as any other systems and through rate cutting and poor supervision can stray just as far from equitable principles.

As industrial and so-called efficiency engineering acquired increasing acceptance from American industry there was an amazing, mushroom growth of efficiency systems and incentive plans, many bearing the names of the men who created—or claimed to have created—them. This proliferation of systems does not alter the fact that to the extent that wage payment is founded on scientific standard-setting techniques the old distinctions between various wage methods disappear. The specific formulas for computing earnings in relation to job standard may differ but the main differences between modern incentive plans reside in the larger management frameworks of which they are parts. In the same way the use of time study and the strict enforcement of production standards may obliterate the

essential differences between piece work and a premium or bonus system and even between time rates and a regular incentive plan.

This last point is worth noting because it has bearing on the bargaining problems which are the subject of this report. The point is that even though the production workers in a plant be on hourly rates if production standards are carefully set and rigorously held to by management the workers may find themselves under the same type of compulsion that exists under incentive wages, troubled with similar speed-up problems, and perhaps threatened with similar uncertainties as to earnings. In such a situation the union is concerned to gain a voice in the determination of production standards just as in the incentive situation it wants participation in rate setting. An hourly rate set-up involving production standards most nearly resembles incentive wages as a bargaining problem when both occur in highly mechanized industry where operations are largely continuous and the flow of production is mechanically regulated. The decision to exclude such time rate situations from this investigation simply because they do not involve actual incentive wage plans was partly a matter of expediency. But it is also a fact that there are many industries which are not rationalized in the same degree as the auto industry, to take one example, and that there are a great many plants where hourly rates are not combined with scientifically set production standards so that the two types of payment present on the whole quite different bargaining problems.

Furthermore, in the eyes of workers there remains a fundamental distinction between the problems associated with work standards under time rates and those connected with incentive rates. Under hourly rates, no matter how refined the management techniques which go with them or how strictly production standards are enforced, the burden or responsibility for production rests in the first instance with the employer; a drop in production does not result in an immediate financial penalty on the worker, whereas it is the essence of an incentive plan to shift the

initial liability to the workers. Thus there is a security of earnings under a time rate that is absent under the ordinary piece work or bonus system. Workers would in general prefer that any conflict, uncertainty, and hardship connected with a job revolve around the amount of skill and effort they are expected to put out for a fixed rate, as in the case of time rates, rather than around their unit earning rates, as in the case of incentive payment.

Emphasis on the uniformity of modern management techniques under different wage systems may give the impression that the use of incentive payment in industry today is usually accompanied by modern management methods. Unfortunately this is not true any more than it is true that industry has always used incentive methods with the best interests of labor in mind. This, of course, goes to the heart of the labor problem created by these methods. Despite the preoccupation of current management literature and conferences with advanced practice in this field, the inescapable impression gained from visits to a wide variety of plants and industries is that progressive and enlightened management practice is still conspicuous by its absence in a great many manufacturing establishments. Throughout large parts of the textile, shoe, clothing, and similar highly competitive industries and in many small and moderate sized plants in the heavy industries the principles of scientific management have not even made a beginning due to a combination of management ignorance and inertia and inadequate resources for such activities. In other cases techniques have been applied partially or incorrectly, often without happy results. One writer has described financial incentives as having the advantage of bringing an "automatic alignment of effort with a minimum of supervision and most of that strictly impersonal." Too many managements have proceeded on the assumption that all that is necessary is to set up the incentive plan and let it do the work. It is true that an incentive system has the effect of encouraging workers to be watchful and critical of such things as bad tools, poor flow of work, needless delays, and other little inefficiencies

of management that cut into their earnings. But management cannot rely on this check-up through the workers alone; it must be prepared for swift correction of all deficiencies turned up by workers and it must match labor's vigilance if an incentive plan is to operate smoothly. It is to be remembered therefore that it is under prevailingly imperfect management conditions that organized labor has formulated the policies and practices with regard to incentive payment which are the subject of this investigation.

Another useful aid in analyzing incentive wage problems is a recognition of the extent to which the problems are determined by particular production situations. The kinds of articles produced and the nature of the production processes and work operations in each industry and plant govern in large measure the operating characteristics of incentive wages in those industries and plants and condition the labor problems that result. In plants where production is largely a matter of many separate, individualized, and frequently changing operations rather than a series of synchronized group or line operations workers are freer to respond individually to the appeal of incentive rates; it is also more difficult for a group or a union to establish control over production for restrictive purposes. At the same time workers who are on their own in this way are more susceptible to supervisory pressure than if they were members of a line or group. Another obvious contrast is between production operations that demand a good deal of manual skill and those that are made up of simple, repetitive, mechanically controlled jobs. The problems created by incentive wages in each case are apt to be quite different. Another important difference is between jobs that have a longer cycle composed of many-element operations and jobs that consist of two or three elements only. As a rule the opportunities for disagreement over rates and standards multiply with the length of the job cycle. It is clear, therefore, that worker grievances and the character of bargaining relations with respect to incentive methods and job standards must be seen in the light of the production characteristics of each plant situation.

In summary, it may be concluded that although the central principle of financial incentive has always been the same the method of paying labor by results has undergone quite an evolutionary process of development and refinement and occurs today under widely divergent economic and technical conditions and is associated with a variety of management systems. All these factors play a part in determining the kinds of problems incentive wages will pose for a local union in a given situation.

Nature of Incentive Payment as an Industrial Relations Problem. The foregoing discussion helps to explain why collective bargaining in shops or industries in which incentive methods are used has implications that go well beyond traditional wage issues. The first concern of workers who are paid on an incentive basis seems always to be over earnings, to secure increases where possible and to protect themselves against reductions and uncertainties, in other words, traditional wage objectives. But it does not end there; the question raised by an incentive wage rate is always one of earnings in return for how much effort or output. As security of earnings is established through collective bargaining controls disputes turn increasingly on the amount of work required for the wages paid. An incentive wage plan, whether it is simple piece work or a complicated bonus scheme, is a method of computing wages which sets up a high degree of interdependence between earnings and individual plant performance. It is also a management device which makes each worker a responsible factor of production and constantly checks up on him in that capacity. This causes employers to tend to identify efficiency with individual worker effort. A union that seeks to abolish or modify an incentive plan, or to establish earnings guarantees under it, or to participate in its administration soon may find itself involved in considerations and challenging management at points which greatly expand the old concept of "wages, hours, and working conditions." In fact, once the incentive principle and its accompanying management procedures are subjected to genuine collective bargaining there is logically almost no

limit to the type of management decision relating to efficiency that may be taken up between the two parties. Unions may, and increasingly do, go on to insist upon a share of control over the methods by which work standards are established and the alternative measures which employers might take to achieve the desired efficiency. This places on the agenda of union-management negotiations phases of industrial operation and management which were long considered within the sole jurisdiction of management and which employers are still reluctant to submit to joint consideration.

The Prevalence of Incentive Wage Methods. There is considerable disagreement at the present time in industrial management circles as to whether the use of incentive wage plans is increasing or declining. On one hand it is felt that wage and hour legislation and the growing strength of organized labor signalize the doom of such methods. The abandonment by the automobile industry of its group bonus and piecework methods in the NRA period and more recently at the insistence of the organized auto workers is regarded as a significant defection. On the other hand, many management officials feel that the upward course of wages makes it more necessary than ever to stimulate productivity through incentive wages and that modern methods can eliminate the causes of labor's objections.

The available evidence on the prevalence of incentive plans and on current trends is not conclusive. However, surveys have been made by management groups from time to time which furnish some idea of the extent of the use of incentive systems and of the relative popularity of different types of plans. A National Industrial Conference Board survey in 1939 covering 2,700 firms in all kinds of business showed just over half the companies using some form of incentive plan as against approximately 75% so reporting in a similar survey conducted in 1935. However, out of a group of 900 manufacturing companies selected from the 1939 survey on a basis calculated to secure establishments in which incentive payment or day work would be equally workable and acceptable, the Conference

Board found 75% of the companies using some type of incentive system.⁴

It is not sufficient simply to know whether or not a given company or how many companies make some use of incentive payment, for the percentage of workers paid incentive wages, varies greatly among plants. The proportion depends to a large extent upon the nature of the manufacturing process in each plant. As a rule it is the workers engaged in direct production at operations of a repetitive or standardized nature that are most likely to be paid on an incentive basis. In 1939 the Conference Board also undertook a special study of 313 manufacturing plants of all sizes in several industries using wage incentives. In these plants 38% of the hourly rated employees were paid on straight time rates and nearly 62% on some incentive basis. Of interest too is the relative prevalence of the chief types of incentive payment in these plants. Considering only the workers who were under incentive plans, about 60% were on some type of individual or group piece work, 31% on a premium or bonus system, and nearly 9% on measured day work.

No statistical breakdown as to prevalence or coverage of various payment plans was attempted for the plants investigated in the course of this project, but what information was gained on these items through interviews would appear to correspond with the findings of the Conference Board. It should be noted, however, that from plant to plant and industry to industry the proportion of total employed covered by incentive plans fluctuates widely. Generally, the coverage is high in industries like clothing, shoes, millinery, and some branches of textiles; in certain of these plants practically the entire work force is paid by results. In heavy industries such as steel, which requires large maintenance personnel, and in plants where part of the production operations is not well suited to incentive methods the coverage of incentive plans tends to be much lower and in some

⁴ These figures and those in the following paragraph are from the National Industrial Conference Board, *Studies in Personnel Policy*, No. 19, "Some Problems in Wage Incentive Administration" (1940), p. 10.

cases only a single department or line may be so paid. These considerations serve as a reminder that while the body of this report deals almost exclusively with the problems and practices of workers under incentive systems, sizeable proportions of many plants and industries operate without use of such methods, and that even in the plants selected for special treatment in these pages there are many workers who are paid straight time rates.

There is a further consideration which is appropriate at this point. The question of whether the trend is toward increased use of incentive methods cannot as yet be answered, but it can be predicted with confidence that the management procedures which accompany such methods—systematic study of jobs and workers at their jobs and the careful determination and control of work standards—will play a growing part whatever the method of payment. The problems which these procedures create for organized labor therefore will be of continuing and increasing importance.

Description of Incentive Plans. It is customary in current management literature to classify wage payment plans according to the manner in which they relate production and earnings and distribute earnings. Three broad types of plans or bases for payment may be distinguished. One is time wages which assign to the employer the gain or loss resulting from changes in worker productivity. In the second group are the piece rate systems which give the gain or loss to the workers. In the third group are the many premium and bonus plans which share the gains from increased output between employers and workers in varying proportions. In the second and third groups, which are the subject matter of this study, many of the plans may be operated on either an individual or group basis, i. e., under both piece work and premium systems earnings may be computed according to individual or group performance. Within these broad classes there are as many as twenty-five different specific plans of payment, most of them being premium and bonus plans named after the engineers who devised or promoted

them. Analysis shows most of these incentive systems other than piece work to be basically similar. They differ only in the conditions they were designed to meet and in the formulae by which they correlate production and wages. In addition the payment scheme in some cases is merely part of a larger system of process and methods analysis, job standardization, and cost control. A more important basis for distinguishing between incentive plans in practice is the adequacy of the methods used in their operation. They differ greatly in this respect and often do not measure up to the standards of modern scientific management. The principal characteristics of the most prevalent types of incentive plans are outlined below.⁵

Straight piece work. Piece rate wages in some form are more commonly used than all other incentive plans combined. A straight piece rate is a constant rate of pay per unit produced which enables the worker to compute his earnings simply by multiplying the number of pieces produced or operations performed by the rate per unit or piece on his job. Rates are usually expressed in monetary terms. On occasion management engineers have proposed piece work systems under which the earning curves would rise at a more rapid percentage rate than production, thus intensifying their incentive quality. Such variants of piece work have been used very little. F. W. Taylor introduced a departure from straight piece work which he called the differential piece rate plan. It consisted of two piece rates. One was a low rate applying to any rate of production below average or task.⁶ At task and above a second rate 50% higher than the

⁵ There are numerous sources which discuss more fully the technical details and operation of incentive wage plans. The reader is referred to *Methods of Wage Payment* (National Metal Trades Association, 1928); to *Financial Incentives* (National Industrial Conference Board Studies, No. 217, 1935); and to the more recent work of Charles W. Lytle, *Wage Incentive Methods* (New York: Ronald Press Co., 1942).

⁶ The word "task" as used in connection with incentive wage methods represents an arbitrary standard of worker performance per hour selected for use as a norm from which to measure worker productivity, compute incentive earnings in the form of bonus or premium, and so on. Task may be fixed at a high or low level depending upon the incentive system. Usually,

first went into effect. The purpose of the plan was to discourage and penalize workers who would not produce up to task. Modifications of this plan have been developed which reduced the incentive step between the first and second piece rates or made two steps by adding a third piece rate. None of these plans has had wide adoption.

Some piece work systems incorporate a guaranteed minimum wage, thus assuring workers that regardless of their individual production their hourly wages will not fall below a certain amount.⁷ Such guaranteed minimum wages are usually well below the expected average earnings for the piece workers.

Plans which combine a full hourly or day guarantee with straight piece rate applying to production over the standard so set are sometimes known by the names, 10% premium plan or standard hour plan. Under the standard hour plan the piece rates are converted into time units and the worker is paid for the number of standard hours of work he produces. This arrangement often has advantages for bookkeeping purposes.

A well known plan which is a cross between time wages and piece work is the Gantt task and bonus plan. Its distinctive feature is that a fairly high standard is set for average performance, or task, on each job, guaranteed time wages being paid up to that point, but for production at task a bonus of from 20-50% is paid and above it piece rates are paid on that stepped-up scale.

Halsey Premium Plan. This was one of the first incentive plans other than piece work and was the original gain sharing plan. Time wages are paid for production up to some stipulated percentage of standard task, the latter usually being determined

however, task designates the level of output management considers it should receive from an average worker producing at average speed. Thus production at task under most plans would earn just the hourly base rate; production below task would be covered by the minimum day rate guarantee; and any production over task would earn an additional amount in the form of premium, bonus or piece work earnings.

⁷In plants covered by the Fair Labor Standards Act or similar state minimum wage legislation the established legal minimum wages must be paid each employee regardless of individual output.

on the basis of past production experience. For performance above this point workers are paid a premium which under the original plan amounted to 50% of the time saved by the extra output but which may be varied. It is frequently management practice under this plan and many of the gain-sharing plans to distribute a portion of the company's share of gains to indirect labor and lower supervision as incentive and reward for stimulating increased production.

Bedaux point premium plan. Also a gain sharing system, the Bedaux plan is the prototype and the best known of the "point plans." This term derives from the fact that under these plans worker performance in each plant, no matter how diverse the operations involved, is reduced to a common denominator and expressed in small standardized units of time. The Bedaux plan calls these units "B's". The B unit is the amount of work and necessary rest comprising an average minute of working time of an average employee working under normal conditions. The relative proportions of effort and rest making up this minute or B unit vary according to the character and strain of the work. Ordinarily, 60 B's per hour represent standard performance or task and around 80 B's per hour are usually considered expected performance for experienced workers. Like other gain sharing systems, the Bedaux plan guarantees time wages up to task and gives workers a share in savings above task. The proportion going to workers regularly was set at 75%, the other 25% being distributed to indirect labor and the supervisory force.⁸ More than many similar payment plans the Bedaux plan is a production control system as well. With all kinds of work reduced to terms of comparable time units the detailed records which are kept enable management to compare and keep a close check on the efficiencies of individuals and departments. The amount of clerical work which this entails is one of the disadvantages of the plan.

⁸ Under new management and new policies, for which organized labor would appear basically responsible, the Bedaux Company now applies its incentive methods so that the worker is compensated for 100% of the time he saves.

The Haynes Manit system is very like the Bedaux plan in that production is converted into time units called manits, or man-minutes of work. This system now pays 100% for production over task. There are also several other unit or point plans, such as the Dyer and the Stevens plans, which are outgrowths of the Bedaux or Haynes principle.

Emerson Efficiency Bonus. This plan may be mentioned as a departure from the constant sharing principle of many of the gain sharing plans. A relatively high standard or task is set and workers are guaranteed a time wage up to 67% of task. As production increases from this point to task itself workers are rewarded with a series of small incentive bonuses more or less empirically set which total about 20% at task. Above task a straight piece work type of rate applies. This method has had a number of adaptations.

Modifications of straight time wages. Various compromises between day work and incentive plans have been worked out by managements and by engineers. The simplest makes use of two time rates and is called the standard time plan. There is a regular day work rate and a second rate which applies to production at and above task. The production level at which the step up to the second rate occurs and the size of the differential are decisions up to the judgment of management. The incentive effect of this plan obviously is limited to the single bonus for making task.

Multiple time plans of several kinds have been elaborated from the standard time principle. Instead of one production point at which a step up in the rate occurs there are several. The first is usually well below standard performance and the top rates may be established for production well above task. The number of the intervals and the spacing of them are again matters of arbitrary decision. It is usual with such standard or multiple time plans to check on the level of each individual's output and to make the appropriate pay rate adjustments every week or two weeks. Careful job-study techniques may be used with these plans as with any other, but rates and standards tend to be empiric.

Measured day work. This is a new method of wage payment which is also a compromise between time work and incentive wages. It comprises two groups of rates, base rates and incentive rates, and both are hourly rates. Base rates are established on the basis of careful job analysis as under any progressive wage practice. The distinctive feature of the plan is the hourly incentive rates which are determined separately for each worker as a result of management evaluation of his productivity, the quality of his work, his dependability, and his versatility. Periodically, usually every three months, each worker is subject to rerating on these points and a commensurate incentive rate change. The amount of the incentive, typically around 20%, and the relative weight given to the several criteria by which workers are rated are within the discretion of each management.

The plans which have been summarized briefly above are to be considered only as representatives of types. Engineering firms and local managements in applying a plan to a given situation habitually elaborate or modify it to suit particular technological, production process, or management considerations.

Time Study Methods. Every wage method must deal in some way with the question of how much work or effort is being paid for. If payment is on an hourly basis a lax management may neglect the question; this, in effect, leaves it up to individual worker determination. But any incentive plan, from the simplest to the most complex, compels management by the necessity of having to set rates to give some answer to the central and difficult question: "What constitutes a day's work?" Philip Murray and Morris Cooke, in their book on production, clearly recognize this to be the paramount problem and the crux of the conflict between labor and management so far as incentive wage methods are concerned. "Fundamental principles of fair remuneration have been obscured by over-emphasis on 'wage systems' as such. As a matter of fact, the method of payment matters little as compared with the method of determining the standards upon which the wage is based."⁹

⁹ *Organized Labor and Production* (New York: Harper & Bros., 1940), p. 116.

It is possible to arrive at an approximate figure for a fair day's work and the standards on which to base incentive rates purely as a matter of judgment and estimation from experience without carrying on any more formal or exact process of measurement. This, essentially, is the technique of rate determination throughout large sections of the piece work industries such as shoes, clothing, and leather and also in many moderate and small sized plants in other industries. Modern management discourages these methods and offers time and motion study as the fairest and most accurate process. Properly employed it is a combination of techniques and procedures demanding a trained and skillful personnel, careful and adequate preparation, and continuous application with no other motive than efficient industrial operation and fair compensation. Because these conditions are not always met and because time study is easily abused, involves many procedures and concepts that are controversial, and theoretically leaves no place for so unscientific a process as collective bargaining, organized labor has always been very wary of this phase of scientific management and often has actively opposed it. The details of labor's attitude and policies are to be considered in later chapters, but first a brief description of the relevant management methods is called for. The discussion will be confined to outlining the principal procedures involved in time and motion study as modern scientific management would like to see it at its best and as the goal and model for existing methods. Actually, except in the best managed companies, the standard of management wage administration often falls short of the best and all degrees of good and bad methods occur and are called time study. In reality, therefore, the job standards underlying incentive wages in industry today are quantities which were determined in many different ways—by the precedents of tradition, by experience, visual observation, rule-of-thumb, by expert and inexpert stop-watch study, and frequently by combinations of several of these methods.

The student in search of precise meanings and clear distinctions quickly bogs down in the confusion that seems to envelop

the nomenclature in this area of scientific management.¹⁰ The terms job study, job analysis, job evaluation, job-specification, job rating, and time and motion study are among those commonly employed by writers in the field. But some use certain terms interchangeably while few seem to agree exactly on the meaning of any single term. In any case, the important thing is to get at and to understand the management procedures themselves. Job analysis may be taken to refer to the whole process of applying scientific methods in the study of jobs and men at those jobs, but it refers more specifically to the preliminary study of the component elements of the job, such as machinery and equipment, the surrounding conditions of the work and the operations in the job itself. The next step is an analysis of the human qualities and capacities required in each job and ranking of jobs accordingly for purposes of fixing base rates. The term, job evaluation, is sometimes given to this part of job study and the term, job specification, to the descriptive data which outline the results of the job analysis.

When the study of jobs is complete to this point the way is clear for time and motion study and the actual setting of incentive rates or production standards. If the job study program includes motion study as a separate phase it takes place first; it is the study of the physical movements involved in performing jobs for the purpose of selecting and standardizing the most efficient and least fatiguing pattern of motions. Motion study may include the refined and specialized techniques of micro-motion study using special motion picture equipment. Systematic motion study is not used nearly as widely in industry as time study, and it did not enter into the bargaining picture as an independent factor or issue at any of the plants covered by this investigation. However, in practice, any careful measuring of the performance of workers presupposes a conception of how the job in question should be done and a determination that

¹⁰ There is a considerable and varied literature on the general subject of job study and measurement. Summary treatments are to be found in any recent text on management and industrial relations. Ralph M. Barnes' *Motion and Time Study* (2nd ed., 1940), is a longer treatment.

clearly wrong methods should not be perpetuated. It is usually the responsibility of the supervisory personnel to correct and improve wrong work habits when they are shown up. A time study man must know the specifications of a job when he times it and even though he may make no effort to correct a worker's methods, any inefficiency on the part of that worker is apt to show up in the speed rating given him.

In this report time study is interpreted in a narrow sense and refers to the final steps in the process of rate and standard determination; it is the technical tool with which management actually sets rates, although much of the other information developed by job analysis may be used in addition. This meaning brings the term most nearly in accord with the conception of workers for whom time study is usually synonymous with rate setting.

Time studies that make any pretense at accuracy are detailed stop-watch measurements of actual worker performance. Before the observation begins the time study man needs to know and record on his time study sheet all pertinent information regarding materials being worked, the equipment being used, and any other factors which might condition the results. For all but the simplest and briefest of operations it is considered advisable to divide each operation into measurable elements, i. e., the sequence of separate movements or steps which make up a single cycle of the operation. The timing is thus done element by element rather than just once for the elapsed time of the whole cycle. The two most generally used methods of reading the stop-watch are continuous timing, when the watch is not stopped throughout the course of the observation, and repetitive timing, when it is stopped and re-started after each element. In either case, the time observations are recorded by the observer for each element of the job as it is performed for the duration of the study. As many cycles of the operation are timed as seem necessary to give a fair sample considering the nature of the work. Throughout, the observer records times on everything that takes place, including occasional extra movements or operations, unexpected

elements, and interruptions. On certain kinds of work it is management practice to distinguish in recording time data between machine time and the time when the operator is working and between constant elements that do not vary with the item being worked and those that do.

Having completed the actual timing process the time study man must reduce his many separate element readings to a standard time value for each element in the job. A common method is to take an arithmetic average of all values. Before these standard time values can be translated into a standard for the job as a whole, however, they must be corrected by application of a rating factor and by addition of the proper allowances. All time studies need to be "leveled" or "rated" to correct for the fact that the operator studied may not have been giving an average performance in either one of two important respects which might affect his output—the level of his skill on the job and the amount of effort he was putting into it. There are several methods of effecting this correction of time values. The observer may simply select from the many recorded element times one which he considers most representative for each element, or he may derive a numerical rating factor in percentages, or, under point plans such as the Bedaux system, in point units with a 60 point hour being the average. Under the most refined time study procedures the observer is called upon to rate each element in the operation during the timing; more commonly the rating factor is applied after the timing and only to the standard time values. Sometimes it is applied simply to the standard for the whole job. The important point is that whatever method is used, rating or leveling is the judgment of the time study analyst as to whether the worker is performing with better or less than average skill and effort.

The final step is the addition to the time values of allowances, usually divided into time for personal needs, rest, and delays. Correct methods require that careful studies of operations be made over long enough periods of time to adjust allowances properly for the circumstances of each job. This completes

all the steps in the time study process and produces the final time standard for the job studied. Since this tells management what rate of production per hour to expect from an average worker it is a simple matter to apply the base rate previously decided upon for this job and arrive at the desired incentive rate.

This brief summary of what the time study process should be makes it clear that although it sounds as simple as its name—the measurement of the time required to perform jobs—it involves difficult techniques and problems of judgment that demand highly competent management. It also provides opportunities for error and misapplication that have caused much controversy between workers and employers. It should be stressed again that this has been a description of the most complete and modern sort of time study practice which most industrial firms cannot afford or do not have the staff to carry out. At the other end of the scale time study may mean nothing more than a foreman using a stop-watch to check elapsed times on certain jobs. In between, managements find it convenient to use numerous short cuts in setting rates and standards. For instance, performance rating often is avoided by timing a worker who is selected as an average operator or by timing several and averaging the results. Such rough and ready timing procedures are employed in the organized portions of the shoe industry to the extent that any timing occurs at all.

Case situation No. 1. This is a typical example that was described in one shoe center. On a new style shoe there was some question about the price on a lacing operation. One girl was timed with one kind of lacing in 13 minutes. Another girl was timed in the same operation but with a lacing considered more difficult in 12 minutes. A single piece price for both kinds of lacing was agreed on on the basis of $12\frac{1}{2}$ minutes. In such cases timing obviously serves only as an occasional supplement to visual observation and judgment.¹¹

¹¹ Anecdotal or illustrative material drawn from individual plant situations which were dealt with in the course of the field study will be presented in this manner throughout the report. In accordance with the policy of the U. S. Bureau of Labor Statistics the names of plants and

Worth noting in this connection are the findings of Professor Jacob J. Blair of the University of Pittsburgh who made a survey of methods of setting output standards used by industrial plants in the Pittsburgh area.¹² Professor Blair investigated methods in some 360 plants. In 16, stop-watch, time study methods were employed; the remainder, which were the smaller plants, set standards by empirical methods of one kind or another. He distinguished four types of empirical methods: the foreman determines the task on the basis of his own experience or judgment; an average of past performances is used; the tasks are established by pace-setters; or the speeds stated on the machine specifications are used. He noted that under these methods in practically every case human judgment was the determining factor. Furthermore, the precautions against error and mistaken judgments which are a regular part of the best time study practice are mostly unobserved in the empirical methods. Operations are not broken down into their elements; there is little analysis of or attempt to improve the conditions surrounding the jobs; the person setting rates or standards is apt to lack special training and is quite likely to hold a position that makes him more cost conscious than a time study analyst should be; little if any effort is made to speed-rate or effort-rate operators; and allowances for fatigue, delays, and personal time, if treated separately at all, are added in the same empirical fashion.

Although labor criticisms of time study are to be considered in ensuing chapters, the fact that workers often are not sufficiently well informed to deal with the technical weaknesses of time study or at least do not distinguish these criticisms from their other objections is justification for dealing with certain of these points here. It cannot be repeated too often that competent time study is not the only requisite to satisfactory ad-

companies cannot be revealed. However, the case situations are given numbers so as to indicate those cases in which several illustrations are taken from the experience of a single plant or local union.

¹² Reported in Chapter VII on "Extra-Time Allowance," in *Fatigue of Workers, op. cit.*, pp. 120-136.

ministration of incentive wages by management. It must be preceded by measures designed to bring about the most efficient mechanical operation of the plant and by thoroughgoing job analysis, checking of specifications, evaluation and assignment of workers to the right jobs, and training of workers in the best working methods.¹³ Time study should be the final step used in assigning incentive rates in an efficiently operating plant; it should not be an instrument for increasing production through rate setting. Too many managements either have not fully understood this or have failed their responsibilities in this connection. Nor does management's responsibility end with time study and the assigning of rates. Constant administrative follow-up is necessary to see that rates are right and that changing conditions are not overlooked.

It has been said that the analyst needs to have on record all the pertinent information about the operation at the beginning of a time study. Carelessness or disregard of this precaution has often led to argument about the type of machine, feeds and speeds, materials, and specifications to which the results apply. However, the analyst may not be able to insure that the test operation is a representative one. Should he take into account, and how does he make allowances, if the operation is supplied with an especially good run of material or easy pieces, if it is run on a new or freshly cleaned and oiled machine, if some of the usual interruptions to operation do not occur? Management, of course, wants to establish standards applicable under the best operating conditions, hoping they will be attained, and then, if supervisory failure makes them necessary, to add allowances as exceptions. The danger is that insufficient allowances will be

13 Henry Dennison once wrote: "If all we find out is the overall time of a job in just the way in which it happens to be carried on, we have only the beginnings of the information necessary to the setting of a standard time...no time study man living is clever enough to best a moderately clever mechanic and discover the true time." "What Can Employers Do About It?" in Stanley Mathewson, *Restriction of Output Among Unorganized Workers* (New York: Viking Press, 1931), p. 188. It should be said that the latter part of this statement applies probably to the more difficult machining types of jobs rather than to simple, repetitive operations.

made and that operating conditions will not be brought to the ideal level.

In the actual timing and recording of data there are several points to be checked from the workers' standpoint. Aside from the simple necessity of mechanical accuracy in observation and manipulation of the stop-watch, it is important that all that takes place during the operation be recorded on the time sheet; the results will be unfair unless such items as moving materials, cleaning and sharpening tools, and other elements that occur irregularly are included; delays and interruptions also should be recorded. When the repetitive method of timing is employed, giving the observer the discretion as to when to start the watch for each element, there is a chance that he will fail to include everything. One way of being sure to account for more of the irregular elements and to make the test a representative one is to include a sufficiently large number of cycles in the observation. A busy time study man timing an operation that seems routine to him is apt to be content with data derived from a few cycles. Another occasion for exercise of judgment occurs when the element times are reduced to standard time values. Sometimes this is done by permitting the observer to select what he considers the most representative single observed time for each element. If management is bent on setting up ideal standards it may even select the minimum observed time for each element. The possibilities for injustice to workers in these methods are obvious. If the standard values are computed by averaging there may be a question as to whether an arithmetic or modal average is the fairest, depending upon the facts of each case.

Rating the skill and effort of the operator is the weakest feature of time study as a scientific method, largely because it remains unavoidably a determination of judgment, a qualitative decision which directly affects the earnings of workers. Most management experts admit this and the fact that the accuracy of time study results depends on such judgments. The central concept in all rating of employee performance is the "average

worker," which is a questionable concept anyway except as a quantitative average in an observed range of performance by a selected group of workers. It raises the question of how the operator to be tested is selected in the first place. Time study engineers claim that competent analysts will arrive at the same standards on a given operation regardless of the operator timed, but many management representatives admit they prefer to study better than average workers. It is obvious that rating or leveling places great responsibility on the time study men for it is they who must pass judgment. How well must they know the jobs and type of work they are studying in order to give accurate ratings? If there are several analysts at work in a company how are they to keep their ratings in agreement? A premise of scientific management is that the criteria by which a time study staff operates are technical and entirely divorced from considerations of business policy. Is this a practicable ideal? In the nature of things is a time study man as disposed to correct a time value upwards for a fast operator as downwards for a slow one? Granted that time study men can be trained for greater accuracy in rating and that their consistency can be checked over a period of time, do most managements take such steps? These are some of the questions that inevitably come to mind in regard to the rating phase of time study.

It is of interest that the Society for the Advancement of Management, recognizing that the "accuracy of time study is strongly influenced by the accuracy of the observer's estimate of the performance of the operator" and that management practice needs to be improved and standardized, has a Committee on Rating of Time Studies. The Committee is concentrating to begin with on a study of differences in the concept of standard, believing that these differences are largely responsible for disparities which occur in operator ratings. By using films of a few standard operations and getting experienced engineers to submit ratings on them the Committee hopes to develop some uniform standards.¹⁴

¹⁴ "Progress Report of Committee on Rating of Time Studies," *Advanced Management*, VI (1941), 110.

The addition of allowances to time standards has always been one of the causes of trouble over time study chiefly because allowances, like performance ratings, are so largely a matter of judgment and company policy. There is no way of measuring reliably how much time should be added to standards to give workers adequate rest and personal time. It is clear that the allowances should vary for different types of work. These are not quantities to be determined by time study men but rather should represent management policy based on careful study of the work performed in the plant. Too often they are percentages fixed in a haphazard manner and applied uniformly without discriminating among jobs of differing physical difficulty. There are still managements that fail to see the inconsistency in fixing operating times by split-second time study and rating procedures only to add to them unstudied lump-sum allowances for fatigue and personal time. Delay allowances are quantities which can be fixed more appropriately by the time study men themselves, and can be more definitely measured if the period of observation is long enough, which it seldom is. At best there are always possibilities for delay and work interruption which time study will not cover, but the more of these that are not provided for in the standard or that the worker must secure allowances for from his foreman on a day to day basis the more likely are they to be a source of trouble.

This brief analysis has dealt chiefly with the weaknesses and technical difficulties inherent in the time study process in an attempt to demonstrate that it is not the infallible method that some of its exponents have claimed. Other equally serious criticisms relating mainly to management misuse of time study techniques are treated below in conjunction with the union case against incentive wages.

CHAPTER III

UNION ATTITUDES AND GENERAL POLICIES

THE question of whether workers should be paid by the hour or by results is the subject of one of the oldest controversies in industrial relations. By tradition born of bitter experience nearly all trade unions have opposed incentive methods of wage payment at some point in their development. This opposition probably has never been unanimous but it was very general in an earlier period of union history when the introduction of more complex incentive plans with the rise of scientific management intensified many old antagonisms. Today, while the main weight of opinion has not shifted, there are more exceptions to the former unqualified opposition in both national and local union offices. There is wider acceptance of the view that workers may be protected adequately by genuine collective bargaining and that under this protection incentive forms of payment can provide secure incomes and can even help to maintain the high wage standards demanded by American workers.

In the ensuing discussion of the attitudes and policies that have developed among organized workers in connection with incentive methods it is well to have in mind the fact that in most of the major manufacturing industries, where this inquiry has centered, unionism is still relatively new and that its principal objective has been the aggressive one of organizing and gaining recognition. Incentive wage systems have served as useful issues in these campaigns and formulation of policy has been subordinated to the immediate aim of eliminating or correcting past abuses. It is natural too that there should be a carry-over to the industrial unions of the strong antipathy for incentive plans and other scientific management techniques which has been traditional in many of the craft organizations. A large body of industrial union members tends still to think of incentive methods as they were at their worst in the pre-union days. This seems par-

ticularly true, for instance, of the auto workers who made the switch to day work very early in their organizational history. It is rather strikingly evident that a great many of these workers have little conception of piece work or other incentive plans as potentially stable payment arrangements adequately controlled by the union to protect the workers from hardship. It is a pertinent fact also that these unions arose in a period when large-scale unemployment made labor-saving schemes of any description doubly unpopular with organized labor. In other words, the large industrial unions have not yet enjoyed a period of settled industrial relations or of stable economic conditions which would foster the development of mature policies on the complicated problems of incentive payment and industrial efficiency.

Before proceeding further with this discussion attention should be drawn to Professor Sumner Slichter's useful treatment of union attitudes toward wage systems.¹ The general impression created by his analysis is that organized labor is more favorably disposed toward incentive wage methods than the following pages will indicate. The difference can be accounted for in part by the dissimilarity of the investigations. Professor Slichter's findings are based in large measure on earlier data dealing with the experience of older unions in the smaller industries such as the stove, pottery, flint glass, and cloth hat and cap industries. For example, he cites Professor McCabe's study, made in 1908, in which he found that of 117 unions, 26 opposed piece work, 33 accepted it and 58 were paid on a time work basis.² Slichter draws hardly at all upon the experience of the more recently organized unions in the mass production industries which is the main concern of this study.

The field study on which this report is based was completed before the United States entered the war. Nevertheless, some account must be taken of the effect of the war and the tremendous productive effort it entails upon the incentive wage question. To what extent it will upset precedents and compel new pat-

¹ *Union Policies and Industrial Management* (Washington: Brookings Institution, 1941). See Chapter X, pp. 282-310.

² D. A. McCabe, *The Standard Rate in American Trade Unions* (1912).

terns of worker behavior and union and management policy there is little way of predicting. Certain considerations dealing with the war emergency as a new and special factor in the situation will be discussed in the following chapter.

It is in the apparel industries, traditionally the stronghold of piece work methods, that the most complete acceptance of the principle of payment by results is found among the unions on an industry-wide basis. This has not been true always and these unions have gone through periods of lively conflict over the piece work-week issue. Changes back and forth from one form of payment to another have taken place and dissatisfied workers or groups are to be found under any arrangement. In men's clothing, predominantly piece work for many years, the stabilization program of the Amalgamated Clothing Workers, which is based on uniform labor costs for specified grades of garments and thus practically requires payment by piece rates, has caused the virtual disappearance of week work in the parts of the industry to which it has been applied. In women's clothing the development in the major centers of the present more systematic price settlement procedures which protect the workers from the hardships of the earlier competitive price setting has done much to make piece work satisfactory. The situation in the hosiery industry is similar. In the headwear industries, especially millinery, and in the shoe industry the unions have had to recognize the compelling competitive reasons for piece work. In all branches of the apparel trades, of course, labor cost competition has been one of the most important factors influencing payment method. Besides, payment by the piece is all many of these workers have ever known and the force of custom is very strong.

The piece work system is also well suited, in fact almost essential, to handling the problems of remuneration in a highly seasonal industry in which fluctuations in the volume of work are accompanied by fluctuations in the tempo of output of the workers themselves and in which the policy of work-sharing is observed in slack periods. A shop chairman in a shoe plant told

how, although his annual earnings come to less than \$1200, in the busy season he makes as high as \$50 and more a week. Many unionists believe that piece work not only accommodates itself to seasonality but actively intensifies the fluctuations in production.

Another factor which has made piece work more acceptable to workers in these industries is the characteristic fact that manual skill and control are so important in production with the result that wide variations in individual worker productivity are common. Union representatives point out that such variations may be as great as 100% and cannot be compensated suitably other than by piece rates and that workers expect the resulting disparities in earnings. In addition, the faster workers make a sizeable group who fear that a change to week work would bring a decline in their earnings. There are also many workers and union leaders who claim to prefer piece work not only because it rewards skill and extra effort but because it eliminates driving from the bosses and makes the worker his own master allowing him to come in late to work on occasion, set his own rest periods, and establish his own rhythm of work. It is fair to say that back of such favorable attitudes and much of the ready acceptance of piece work to be found in these industries lies the confidence engendered by strong organization and many years of successful bargaining relations.

Piece work or payment by some unit of output is common on most machine operations in the textile industry. Because it is traditional and because, by the nature of production, the concern of workers has been with the size of work loads (typically measured by the number of machines the worker must tend) the unions have rarely made an issue of payment method itself.

In the heavy, durable products industries workers have been confronted with a wide variety of wage systems which have been subjected to collective bargaining only within the last several years and the opposition has been far stronger and more vocal. A great many of the international unions in these industries are officially in favor of abolishing incentive systems wher-

ever possible. At least this is the impression to be gained from the verbal declarations of national officers and from resolutions passed at annual conventions. The auto workers have been most active in pursuit of this policy. The United Steelworkers of America on the other hand, does not take an official position against any and all incentives.³ It has many grievances against various wage methods in specific situations but its policy is to work for correction of abuses and for protection of workers through participation in the regulation of such methods; it considers complete abolition of incentives from the steel industry an unrealistic aim. One representative suggested that opposition to incentive payment in this industry might be far more intense if it had not been organized just about the time the companies were beginning to drive down standards by scientific overhauling of rate structures. Golden and Ruttenberg present an interesting thesis regarding the natural evolution of wage methods.⁴ They predict that the power age will tend to render obsolete the more complicated wage incentive systems and job study techniques. As muscular power is increasingly supplanted as a source of energy so will the more complex wage methods be succeeded by simpler systems and methods of wage payment. Organized labor may continue to exert an influence to this end but the power age will be the determining factor. The position taken with regard to incentive systems by a large group within the United Electrical, Radio, and Machine Workers is indicated by a recommendation sent out by a committee of the General Electric Locals Conference Board: "The Committee believes that the time is appropriate for the establishment of more uni-

³ The position of this organization, it may be presumed, is reflected in the general point of view expressed by Philip Murray in *Organised Labor and Production*, *op. cit.*, and by Clinton Golden and Harold Ruttenberg in *The Dynamics of Industrial Democracy* (New York: Harper & Bros., 1942). The former book contains the statement: "Where morale is high and a good understanding exists between management and union members almost any wage system can be made to work," p. 112. Murray is President and Golden and Ruttenberg are officers of the United Steelworkers of America.

⁴ *Op. cit.*, pp. 308-309.

form and simpler wage systems in all G. E. plants. The most intelligible and satisfactory systems, whether group or individual are those based on a fixed price per piece regardless of number of pieces made or worked on."

Whatever the position of the international body as expressed in convention resolutions or in opinions of officers, the study of individual cases reveals that in local plant situations in each industry departures from that position and differences in viewpoint on incentive methods occur ranging from bitter opposition to definite approval. An illustration of how the officially declared sentiments of a national organization may fail to coincide with the practice of some of its constituent locals is afforded by the United Rubber Workers. At several annual conventions this union has gone on record as favoring the elimination of incentive methods from the industry.⁵ Yet among the individual locals there is no evidence of active campaigning on this issue and considerable indication that many groups are content to remain on incentive wages. Similar contradictions between profession and practice occur in other unions. The International Association of Machinists is a union which has declared its official opposition to incentive wages for many years in its constitution. The present clause is worded as follows:

In shops where it is not now a practice no member of a local lodge is permitted to accept piece work, operate more than

⁵ At the Fifth Annual Convention, September 16-21, 1940 (See *Proceedings*, pp. 110 and 267) the following resolution was passed: "Whereas: The industries of Detroit were the most vicious and prolific breeding grounds for incentive systems in the country, and Whereas: The toll of human lives and miseries heaped upon society by the Bedaux-Task and Bonus-Wage Bonus and other incentive systems is appalling, and Whereas: These incentive systems have been practically eliminated in Detroit through the efforts of the UAWA, Therefore Be It Resolved: That this convention go on record as opposing these systems and follow the example of the UAWA in eliminating this breeding of human misery in the URWA." One delegate pointed out that similar resolutions had been passed and applauded at two previous conventions but that the incentive systems were still in effect and he asked for some explanation of how the auto workers had achieved this objective. He got no satisfaction from the framer of the resolution or the other delegates.

one machine, or accept employment under the premium, merit, task or contract systems. Members found guilty of advocating or encouraging any of these systems in shops where they are not now in operation shall be liable to expulsion. (Constitution for Local Lodges, effective April 1, 1941, Art. 8, Sec. 6, p. 84).

At present there is little evidence of active prosecution of this policy by the union as a whole and there are a great many individual instances of departure from it.⁶ Inconsistencies are found, also, in the automobile industry where the union is generally known as one of the most implacable opponents of incentive methods. Several plants were visited in which most of the workers were on piece rates and, having good bargaining privileges and confidence in the management, gave every evidence of being satisfied. One small parts plant local had twice voted down a change to day work; these workers knew they had good rates. Local union officials in Toledo told of hearing a number of workers who had worked on hourly rates in Detroit express a preference for working under incentive rates in Toledo. An organizer in Detroit associated with the local in a large and prosperous parts manufacturing firm defended the piece rate set-up in that plant and took the rather novel line that a shift to day work involves risks for a union in that it may lose the shop through a drop in efficiency or lose the union in its efforts to keep the men efficient. Generally speaking, the attitude of each local is to be explained in terms of its past experience with its particular incentive problem, the length and satisfactoriness of its collective bargaining relations, and such economic factors as the profit record, the competitive situation, and the production processes of the individual plant.

Nor are differences over this important policy question confined to the national-local relationship. They occur sometimes

⁶ Prof. Slichter describes the long struggle of the leadership of this union to modify its policy on the piece work issue and he cites the opinion of one high official that this opposition has been an important enough mistake to prevent the organization from becoming the largest in the A. F. of L. *Op. cit.*, pp. 305-309.

between the leadership and the membership of a single local union.

Case situation No. 2. A striking example of this sort is furnished in the case of a large, eastern electrical products plant which is strongly organized by the United Electrical, Radio, and Machine Workers. Among the payment methods in use at this plant are a Group Incentive Plan, the Bedaux plan, and straight piece work. The capable and effective leaders of the local singled out the first two schemes for particular attack. They were eloquent and well informed as to the shortcomings of these plans for workers. They finally persuaded the management to consent to a program of converting these plans to simple piece work only to find that the workers involved would not vote for the change. These workers failed to follow their leaders for a combination of reasons. Some with particularly good rates or standards stood to lose in a change to piece work. Hourly earnings under the present incentive plans were higher than they had been on piece work originally and the adequacy of the prospective guaranteed rate under piece work was uncertain, so that many feared they might suffer a loss in earnings. A group of older workers were simply opposed to any change, the unreasoning reaction which occurs so frequently among workers when a change relating to their pay envelopes is involved. It is also true that, partly as a result of increases, adjustments, and guarantees already secured by the union, the workers in this plant enjoy good earnings and do not find the incentive plans oppressive and that because of the union's strong bargaining position they feel secure on incentive rates.

Case situation No. 3. A similar difference between a local executive committee and the workers involved showed up in an automotive plant where the management specifically agreed to convert from a bonus system to day work after a six months period. When the day came the men affected voted to stay on bonus. Officers of the union asserted that the company began padding the earnings of bonus workers and being generous with allowances during this interval for the purpose of defeating the move. The company also announced that hourly

rates to supplant bonus would be 12-15 cents below previous average earnings.

These cases well demonstrate some of the practical difficulties which confront local unions in effecting wage system changes.

The above examples raise the question as to how faithfully local union officers and shop committees represent the views of their memberships on the wage incentive question.

Case situation No. 4. A rather unusual example of the influence a union official may carry over his membership came to light in the flat glass industry. At one of the plants of a large concern the workers, although on hourly rates, were maintaining production performance as good as, or better than, that of plants on bonus and were thus entitled to additional earnings. Nevertheless, they refused to accept the bonus system which would have increased their earnings without extra effort largely because the local president, an influential lay preacher, was so vigorously opposed to all incentive plans. Later, with a change in the union presidency, the plant went on bonus.

There can be little doubt that in their need for slogans and issues the active spirits in local unions sometimes make more of a grievance out of incentive plans than the facts would seem to warrant. This is natural considering that the issue has been a subject of such long standing and strong prejudice in the minds of workers. On the other hand, as local officials often point out, a body of workers may possess less decided or hostile views than its leadership because it lacks information. Workers are hard to rouse against incentive methods in some cases simply because they have known nothing else and an alternative system of payment is difficult for them to visualize; thus tonnage rates and various bonus plans seem unalterable fixtures to many workers in the primary steel industry. It is also true that despite their declared opposition to incentive wages many workers and unionists are frank to admit that their preference for an hourly wage is founded on the assumption that it will provide hourly

earnings equal to incentive earnings. At the same time many agree that workers in general would not maintain their former production if put on hourly wages where they previously had been on incentive rates. Lack of understanding of various wage payment methods, of the way gains resulting from extra effort are shared with the employer under many premium systems, or of the way in which time study can be misused may be another cause of worker apathy. A representative of the United Furniture Workers in a midwestern region remarked that new workers often had an initial enthusiasm about the incentive schemes in furniture plants only to be disillusioned when they became acquainted with the results. It is true also that individual workers, in contrast to union officials, usually are not so disposed to consider the possible effects of incentive wage methods on the welfare of the group, for instance, in the form of friction among workers and labor displacement. The average union member remains notably uninformed on the whole incentive wage problem. Labor leaders realize this and would justify much of their propagandizing and criticism of employer policies for its educational effect.

The Union Case Against Incentive Wages. In presenting the criticisms and grievances which comprise organized labor's case against incentive forms of payment the very necessity of arranging arguments in orderly fashion for purposes of discussion tends to misrepresent the actual case as it comes from workers and local union men in a series of diverse situations. Here and there one finds in the union press, in a speech, or in some other publication a reasoned statement by a national officer of a union of what purports to be labor's position. In the following treatment analysis is focused on opinion as it is encountered locally where it is seldom presented systematically, is often bitter, and where the various arguments and inconsistencies and differences among individuals, groups and shops do not build up to a single, coherent critique.

Case situation No. 5. From a canvass of individual workers one can gain a vivid impression of the wide variety of view-

points, many in conflict and others representing all shades and degrees of opinion and motivation, that underlie what seems to be a uniform majority opinion of a single plant labor group. Quoted below are samples of such individual worker opinions. They are taken from an analysis of employee opinion made by the personnel office of an automobile plant where the question of conversion from a piece work system to day work was under discussion by the union and management. The opinions were gathered in the course of an informal poll of representative workers throughout the plant.

Helper, press room—"I like piece work because you can get out and make something."

Arc welder, press room—"I don't want day work. I work hard for what I get, but you can't make money on day work."

Operator, press room—"I like piece work, but I think the rate is too low for this job since the rate was cut."

Worker, offal department—"When we are on the big roller it isn't so bad, but these little jobs are lousy. I want all day rate."

Welder, not otherwise identified—"I will lose money if we go on the day rate. But I voted for it because I don't think we will have to work so hard."

Worker, door department—"Some of the guys want day rate. Always looking for trouble and trouble they will have if it ever comes to day rate. I voted piece work and will stick to it."

Worker, not otherwise identified—"I can't make 80 cents an hour and I have been trying for three years on this job. I voted for day work."

Worker, metal assembly—"I want piece work because I want the money. I can earn about \$1.15 per hour. The times goes faster and there is more incentive for me to invent short cuts and new ways of doing work so that I can help my own job."

Worker, metal assembly—Man working now on piece work states he would rather work day work because he feels that there would be less chance for favoritism than there is now in giving out a good job to one and poor to another.

Girl worker, trimming department—"I prefer piece work because I have always been able to make out. . . . One hears so much about the speed of this work, however, when I worked at ——— I really worked faster on a day rate job than I am working at the present time. . . . What makes this bad when you are on a piece rate job is the fact that your operation may depend so much on a fellow-worker. . . . and it frequently holds you up to the point where it cuts down earnings."

Clinch nut worker, metal assembly, says he does not care, just so he can make a dollar or more an hour and have steady work.

Girl worker, trimming department, says the girls would rather work piece work as they realize day work means as fast as they work now and not the chance to earn as much.

Worker, not otherwise identified—"I am satisfied with piece work. Day rate would be fine, but will they give me \$1.10 per hour day rate, same as I make on piece work?"

Welder, floor pan group—"The hell with day rate. I make my money this way easy. With day rate they would push all of the time."

Inspector, press room—"I think most of the men would prefer day rate because they would be able to budget their income. . . . I also think it would improve the quality of the product. . . . and it would make for better relations between the employer and the men."

Worker, press room—"The only trouble with piece work is that when we run out of stock, or something happens to our own particular job, we are transferred around to something that we can handle, and it takes a little while to get broken in on that job."

Welder, quarter panels—"What do they think we are, robots? Just throw us in gear and we go in high speed. When the flash welders on quarter panels break down the foreman is right on the spot to see that we are checked out. We know that 12 minutes is when idle time pays, but to be broke down repeatedly say from 5 to 11 minutes and have that mount up to

sometimes over an hour, and then at the end of the day the foreman won't even give us half of that, even though we try to make up some of it, is a very good reason for wanting hourly rate, even though I would rather have piece work if handled right."

Superintendent, not otherwise identified—"Inasmuch as it takes 8 to 11 weeks to attain a normal earning rate in many instances it makes day rate appealing to many production workers."

Blanking press operator, press room—"I'm making money and am satisfied. Just keep me off the group jobs and leave well enough alone."

Worker, floor pan group—Stated they were satisfied as long as things ran right, but were trying to get an hourly rate because "the foreman has taken it upon himself to take care of our breakdown time. We know he has a tough time, but it isn't our fault when the welders break down. We try to make up all we can but at times it is impossible. We know that 37 men on this job would rather work piece work if the foreman would argue less and give us the idle time that is rightfully ours."

There are still some workers and unionists who uphold the old tradition of opposing incentive wage payment as a matter of principle regardless of circumstances.

Case situation No. 6. At a large rubber plant a group of maintenance men were put on measured day work so that they could participate in incentive earnings. Their bonus was given to them in separate checks. These were returned and the men continued to refuse bonus although their work was still measured and they were earning it.

However, more and more the union attack is focused on specific objectionable features. To clarify understanding of labor's attitudes it may help to consider its criticisms under four main headings: opposition to the nature of incentive payment itself; criticisms of job study techniques; criticisms based on poor or

faulty management administration; and suspicion of employers' motives and fairness.

Most workers would be puzzled if asked whether the incentive principle as applied to wages is an equitable one. Only a few would be able to grasp the implications of the question for the controversy revolves around far more pragmatic issues. Extra pay for extra effort or skill seems for the most part to be in accord with labor's ideas of justice. The punitive aspects of the incentive principle are subject to more question and are often met with the argument that a worker not naturally endowed with dexterity and coordination may work just as hard, though less productively, than one who is. The idea of minimum earnings guaranteed to all as a matter of right is pretty solidly established. But objection to the idea of differential payment is not an important item in the union case. In attacking the incentive principle union representatives have in mind rather its consequences for worker attitudes and behavior and its effect on employment.

A very obvious drawback is the frequency of the grievance proceedings which commonly originate in incentive wage problems. Many a union grievance man will admit that part of his feeling against a piece work or bonus plan is due to the constant negotiation and investigation it entails for the responsible union officials. One of the most characteristic worker reactions to incentive wages is a feeling of uncertainty. As Benjamin Selekman has expressed it, "Intrinsically, piece rates induce anxiety, if not always competitive aggressions, in contrast to the comparative securities of time rates."⁷ This insecurity springs from the rather paradoxical fact that in practice the earnings of workers on incentive rates do not depend alone on their own capacities. In other words, payment by results is not identical with payment by skill or effort put forth; an endless variety of other factors can enter in to affect results. These factors cause fluctuations in earnings and interruptions in earnings which form the

⁷ "Living with Collective Bargaining," *Harvard Business Review*, XX (1941), 30.

basis of insecurity. It is ironical but true that one of the union grievances against incentive plans in certain plants is that too many of these other factors arise to interrupt production at incentive rates forcing workers to produce at a less profitable hourly rate of pay.

Another type of worker reaction to the incentive principle was referred to by a union official in the leather industry where many operations have long been on piece work when he said, "The chief function of the union is to protect the men from themselves." Among other things he was thinking of the men who had blocked a wage increase his union had requested by staying on in a plant to work until 8:00 although they had punched out on the clock at 4:00 and thus recorded high earnings for 40 hours work a week. This is a common thought which is voiced by union leaders in many different industries in the frequent remark that it is only human nature for the men to respond to financial incentive even to the extent of overworking themselves and participating in speed-ups. An electrical union official recalled the difficulty he had getting a group of piece workers in one shop to accept the 40 hour week. They had been used to working long hours on their own to build up their earnings. Thus incentive payment may tempt the worker against his own best interests and it sets the stage for possible exploitation by employers. Unionists stress the effect of the financial incentive on the behavior of workers in groups. If incentive rates are effective they stimulate aggressiveness, competition, a spirit of rivalry, and the other individualistic qualities in workers most calculated to intensify the frictions and ill-feeling among individuals and groups in plant and shop. Men may even be induced to resort to deception to cheat their fellows or the company in order to improve their own earnings. A persistent cause of friction among incentive wage workers unless measures are taken to guard against it is the distribution of work among individual workers. Whenever work materials, or parts, or tools vary in quality so that some work can be completed more easily or speedily than the rest there is

chance for trouble. Union members in a glass factory told of a worker who turned off the lights in his work room and worked in the dark in order to keep for himself a run of easy work. Friction caused by incentive wages also creates an ideal situation for the practice of favoritism by foremen and supervision,⁸ for playing different groups in a shop off against each other, and for other activities designed to stimulate output or defeat labor organization. Often the group types of incentive methods, theoretically intended to promote cooperative endeavor, have been most productive of ill-feeling because the dependence of the individual on collective output for his earnings and his helplessness to control the fluctuations in those earnings foster dissatisfaction and suspicion.

The fear of unemployment is one of the most important considerations governing attitudes towards incentive forms of payment. They are regarded in much the same light as technological change as a potential cause of labor displacement. The possibility of high earnings is an invitation to thoughtless workers to work themselves or their co-workers out of jobs. The extent to which workers are aware of this threat inherent in payment by results varies according to the situation. The burden of such unemployment naturally tends to fall more heavily upon the older and slower workers who are unable to maintain the expected tempo of production and it is these groups that are usually most conscious of the unemployment threat. Where operations are seasonal in nature or where recent technological or managerial improvements have resulted in layoffs the awareness of this problem is likely to be quite general and to be expressed in concrete terms. Just how concretely workers see the displacement aspects of incentive wages is illustrated by the argument one local official gave for output restriction by his union. Pointing out that 5000 workers were employed in the plant he figured that an increase in plant performance from an average

⁸ This term is used in this report to refer collectively to representatives of plant management in the lower levels in distinction to the top executive group.

of 100 to 110 B's per hour would result in the layoff of 500 workers. Another like increase would result in a total displacement of about 20%. Union leadership is educating workers in this aspect of incentive payment and in a period of general economic decline it is quite possible that it would lead unions to press even more strongly than at present for the abolition of incentive plans and for a policy of output restriction. A committeeman at a large steel works made the suggestion, half jokingly but with meaning, that widespread elimination of incentive plans after the war by lowering individual worker productivity would tend to spread the work and might be one method of cushioning the impact of unemployment in a post-war decline.

It is a frequent assertion of workers who oppose incentive wages that payment by output operates to the detriment of quality, precision, and close tolerance work. It is also claimed that incentive payment tends to increase the ratio of scrap and spoiled work. A graphic illustration of how this operates is contained in a letter from a worker to his national union office describing the manner in which the incentive system at a steel fabricating plant caused assemblers and welders to omit essential operations and to do shoddy work, thereby increasing final production costs:

We the workmen of L—— have been trying for a period of years to get away from the Standards System with the thought that it is not fair to the men nor the company. . . .

The company has called it an incentive system. The only incentive from the pay envelope standpoint is an incentive to get your card running out on the job and get rid of it, or to get more time on it than your buddy. This is done in the following manner:

The jobs always start into production at L—— by the assemblers, so we start there to explain how he makes bonus if it can be made: A. A hasty reading of the blue print is made. B. The number of tacks are cut down. C. The gas cutting operation is made so that no second cut has to be made. D. The scale left by gas cutting is not removed.

He rings his card out and has made so much bonus. The fellow next to him knows his different job cannot make bonus so he takes his time; more than likely wastes time because he figures the first fellow is making more money and not working nearly as hard. The first job is then measured for gaps and inspected; the inspector, being an old assembler, passes this bad gas cut job with the scale not removed and the small number of tacks because he used to make his bonus that same way.

The job then goes to the welder.... If the welder sees a possibility of making bonus on the job he pushes the rods into it regardless of the quality of the weld. If it takes more than an 8 hour shift to do this job several things occur. There are easy and hard welds in most jobs, so the first welder takes the easy welds, turning away from the hard welds; the next fellow resenting this takes it easy on the hard welds, so that he can cash in on some of the bonus the first fellow earned....

The point is, is this the production that the company expects? Isn't it true that 1) cutting jobs apart after they have been assembled wrong; 2) jobs pulling apart because of insufficient tacks; 3) filling up gas cut gaps; 4) welding too hastily regardless of quality; 5) turning away from tough welds leaving them for the next fellow; 6) putting time on job to get unearned bonus—all these things and any number of others do not bring about the required results but are the results of the system the company calls an incentive system?

Before leaving the question of union attitude toward the incentive principle, attention should be given to the suggestion often advanced that trade union prejudice springs from a basic conflict between the incentive principle and unionism. The point is made that, if the one, stressing the benefits of individualistic behavior, were to operate successfully it would threaten the solidarity, standardization, and discipline so important to the other. This argument appeals strongly to the employer point of view as an explanation of union opposition to incentive wages. The following statement is typical: "Organized labor's chief objection, however, is that incentives are believed to destroy

the mass solidarity of the working population by making the individual's earnings dependent more on his own efforts than on agreements secured by the union."⁹ The potential contradiction between the principles which underlie financial incentives on one hand and unionism on the other is clear enough and that it has some bearing on union opinion may be judged from the fact that union officials are concerned over the personal friction that incentive plans may create within a working group. However, it does not follow that the conceivable threat to unionism in the incentive wage method explains the traditional opposition of the movement. On the contrary, the conflicts and grievances which have been produced by incentive methods have stimulated union organization in many industries.

The procedures by which earning rates and job standards are determined under incentive systems are a second general cause of trade union opposition; this means primarily time and motion study or what passes for it where it is not regularly used. Since time and motion study is a basic technique of scientific management and is chiefly responsible for whatever degree of scientific method enters into a wage system, this is an appropriate point at which to cast a cursory glance over the record of organized labor's attitudes towards scientific management as a whole.

In the early days of this management movement Robert F. Hoxie produced what still stands as the best analysis of labor attitudes on the subject.¹⁰ When he wrote the union attitude was, with few exceptions, one of bitter and unqualified hostility. It may be added that many of the practitioners of science in management were just as heartily opposed to unionism. In the intervening years scientific management practice and industrial relations both have improved and organized labor has become

⁹ National Industrial Conference Board Studies No. 217, *Financial Incentives*, 1935, p. 2.

¹⁰ R. F. Hoxie, *Scientific Management and Labor* (New York: D. Appleton & Co., 1915). See also his "Why Organized Labor Opposes Scientific Management," *Quarterly Journal of Economics*, XXXI (1916), 62-85.

more discriminating. As Hoxie pointed out, unions from the first have drawn a distinction between "scientific management" and "science in management" and have always upheld or at least given lip service to the latter. But the early union position was that there could be little in common between the two. Thus Matthew Woll said in 1920, "While the workers do not disapprove of efficiency in production, they are opposed to the so-called efficiency systems which gauge the workman's usefulness as a productive unit by mechanical rules and devices . . ." ¹¹ It was the same point of view that was able to secure a rider to War and Navy Departments appropriations bills prohibiting "a time study of any job of any employee" and the payment of premiums in addition to regular wages.¹² This uncompromising position was modified in time and, periodically, optimistic spokesmen have predicted a reconciliation, if not an elimination, of the conflict between the principles of unionism and scientific management. One such period was in the decade before the depression when there was much talk of cooperation in the air and President William Green of the A.F.L. addressed the Taylor Society expressing labor's recognition of management and its techniques as important factors in production. The depression and its wage cuts and the spread of industrial unionism with its struggle for recognition and wage increases in the basic manufacturing fields re-emphasized the differences once again. More

¹¹ Matthew Woll, "Industrial Relations and Production," *The Annals American Academy of Political and Social Science*, vol. 91, Sept., 1920, p. 10.

¹² Since 1914-1915 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 Congress).

recently the trend has been in the direction of a mutual composition of differences and union leaders have taken the lead in proclaiming labor's sympathy with the objectives of scientific management. It is now a commonplace to have labor leaders invited to address business school classes and personnel and scientific management gatherings; Murray and Cooke bring out a book¹³ demonstrating the similarity in aims of enlightened labor and management; Golden and Ruttenberg in another book¹⁴ urge union participation in scientific management procedures; and under the exigencies of war production the government sponsors a national program of union-management cooperation.

Spencer Miller, Jr., taking note of labor's mounting confidence in its organized bargaining strength, made a sample canvass a few years ago of official union thinking on time study and revived the contention that union criticism has shifted from management principles to its methods.¹⁵ He quotes a statement of policy by the President of the International Association of Machinists containing these typical declarations: "The mere fact that some one designates an industrial policy as scientific does not make it meritorious or successful. We always ask, Scientific—for what purpose? in whose interest? to what end? . . . Generally, the advocates of 'scientific management' place human welfare in a position of secondary importance." In the same vein is a statement by President Green: "Labor objects to time and motion studies as a speed-up device but the union is willing to cooperate with management in using them as a method of developing production policies."¹⁶ It is difficult to be certain how real the change in labor attitudes has been or how deep

13 *Op. cit.*

14 *Op. cit.*

15 "Labor's Attitude Toward Time and Motion Study," *Mechanical Engineering*, April, 1938, p. 289. Mr. Miller discusses the results of a questionnaire on this subject he submitted to the Presidents of 30 international unions.

16 Also quoted by Miller.

it goes. It is true that union representatives confine most of their objections to the manner in which management techniques are employed but this is sometimes not of much comfort to employers who find union animus against methods as obstructive as their former objection to principle. It seems significant to this investigator that such a large part of Hoxie's analysis of the basis for labor attitudes remains pertinent today. It is not necessary to review or re-examine Hoxie's treatment in detail but one of his conclusions is worth considering in the light of the present study.

It was his belief that organized labor's opposition to scientific management rested on an underlying incompatibility. "Scientific management," he said, "can function successfully only on the basis of constant and indefinite change of industrial conditions—the constant adoption of new and better processes and methods of production . . . Trade unionism of the dominant type can function successfully only through the maintenance of a fixed industrial situation and conditions . . . or through the definite predetermined regulation and adjustment of industrial change . . . The conditions necessary to the effectiveness of the one are, therefore, incompatible with the effectiveness of the other." ¹⁷ A long succession of students of industrial relations have expressed this thought in one way or another. The nature and consequences of this incompatibility, if it exists, are of the utmost importance in the modern labor-capital relationship. Many students who are particularly concerned with the problems of efficiency state the difference in balder terms as a conflict between the managerial drive for ever increasing productivity and labor's desire to restrict output. However, as Hoxie remarked, it is easy in this sphere to read ideals into daily actions. William Leiserson was touching on a phase of this broad question when he said before a meeting of psychologists, "As a mediator I have been struck by what seems to me to be a management mentality that is distinctly different from the workers' mental-

¹⁷ "Why Organized Labor Opposes Scientific Management," *loc. cit.*, p. 78.

ity.”¹⁸ He recommended it as a valuable subject for psychological study.

Contemporary labor leaders are aware that, however phrased, the idea of incompatibility between labor and management on the subject of scientific method reflects unfavorably on unionism. Thus one finds the idea being denied by labor spokesmen and the emphasis shifted by them once again to conflict over method and the motives and competence of management rather than principle. For example, Clinton Golden of the United Steelworkers, in speaking before a group of management experts, took occasion to contradict Hoxie's assertion of an irreconcilable conflict and insisted that having achieved recognition and increasing participation “organized labor is being given reason to visualize the efficient operation of industry as having to do with its own well being and that of society in general.”¹⁹ It is not uncommon, furthermore, to find union speakers and writers endorsing time study as a method which can prove useful and valuable to labor itself. Solomon Barkin, Research Director of the Textile Workers' Union, in a series of articles in *Textile Labor* in which he deals critically, in the main, with prevailing management time study practice, has this to say in favor of the technique: “Time studies can be a valuable aid to protect the workers. Textile workers must increasingly be able to criticize these time studies and to make their own in order to supplement the information they gain from their own experience on the job . . . The employer cannot answer effectively a combination of experience and facts.”²⁰ Murray and Cooke write in much the same vein: “Criticism of time study usually rests largely on a misunderstanding of how to make the studies and apply them. Properly made and utilized they are the most accurate and the fairest of all methods

¹⁸ In an address before the Psychological Corporation as reported in the *New York Times*, November 29, 1941.

¹⁹ “What Labor Wants from Management,” *Advanced Management*, VI (1941), 7.

²⁰ “Textile Workers and Time Studies,” *Textile Labor*, March, 1941.

of fixing standards for wages and for production control . . . The stop watch, in fact, is one of the most effective tools for union-management cooperation, because it establishes facts that cannot be gainsaid." ²¹ Some labor representatives call attention to the fact that the problem is not simply one between technical management and organized labor on the individual plant level. The frame of reference is much larger; for one thing, it takes in employers, as an interest distinct from that of technicians, an interest that is concerned with maintaining price and sales in a more or less competitive market even as is labor. The fact of industrial fluctuation must also be included within this larger frame of reference. On this level the comparison of respective drives and policies as between unionism and management becomes a much more complicated matter and the burden of proof regarding the basis of conflict and the purity of managerial motives is thrown back on the proponents of scientific management, for it is they who also make the business decisions. It was in recognition of the fact that the issue of incompatibility between scientific management and unionism must be seen against a larger social setting that the President of the Machinists declared: "Providing jobs for our nine million unemployed in productive work would create more goods and services than could any plan of 'scientific management' directed towards increasing the efficiency of workers who now have jobs." ²²

Turning to the evidence of the bargaining situations visited during the field study, nothing revealed the conflicting viewpoints of managements and unions so sharply as the concrete process of rate setting by means of time study. The initial distrust which workers are likely to have for management intentions where incentive wages are involved is only aroused still further the more detailed and technical, and hence unintelligible, become the methods of determining rates. Although union leadership attempts to confine opposition to the misapplication or abuse of time study methods, it may be questioned whether

²¹ *Op. cit.*, pp. 117, 118.

²² Quoted by Mr. Miller, *loc. cit.*

most workers make the differentiation between a good tool and its misuse. It is undoubtedly true that in their attitudes there is a large element of dislike and suspicion of the ways in which managements use time study.

Case situation No. 7. A rubber company local which had no particular aversion to time study as such gave concrete expression to its doubts concerning management time study policy by notifying the company formally that it did not accept management's timing methods or standard specifications as a basis for arriving at standards and that it reserved the right to challenge individual rates and standards themselves.

But it is also a fact that many workers have lurking doubts and reservations about the whole principle of time study. There are many who know so little of time study or have been subjected to it under such unfavorable circumstances that they oppose it automatically out of blind prejudice. Typical of this group is the local union officer who asserted flatly that time study is a means of "chiseling" the workers and referred to company time study sheets as "swindle sheets."

Case situation No. 8. An incident which occurred in a New England leather plant illustrates how strong a prejudice can exist among a group of workers to whom time study is unknown in the normal operation of a plant. A machine manufacturer interested in securing some factual data relating to machine design and performance asked permission to make some tests on machines in the plant. Consent was given without thought of possible worker reaction and the machine company representatives went into the plant to start stop watch observations. In the words of the manager "there was hell to pay with the workers." He had to explain the situation with painstaking care and prove that worker performance was not being studied and that the tests had nothing to do with rates before they could be completed.

At the same time it is an established fact that workers who are in a position to gain a reasonable understanding of scientific

management methods and their purposes overcome their prejudices and are able to appraise the various procedures involved on their merits.

Case situation No. 9. On this point the experience of a local union representative who underwent just such a change of attitude is both interesting and instructive. The worker in question was secretary of the local in a moderate sized steel products plant where he held an ordinary laboring job. This is a plant where the union was participating to an unusual degree in the installation of a standard cost and incentive system. The secretary was one of the regular plant workers and union members who were taken into the management standards department by union agreement to assist in making studies and preparing standards. He reported that the union's primary purpose was simply to have these men serve as watch-dogs, that at the outset he considered this his function, and that he went into it strongly opposed to incentive methods. In the early weeks there used to be some great verbal battles in the office between the union men and the engineers regarding incentives, time study, and every other aspect of scientific management. However, the secretary explained that daily work with these methods and familiarity with and understanding of what this management was trying to do convinced him not only that management was playing fair but that its wage system and methods of job study were sound and unobjectionable in themselves. He realized that it would show up the man who had been loafing and that it would require the man who wanted to earn his money to put in a steady 8 hour day. He stated frankly that he knew personally of a great deal of laxity among the men in the way of time spent smoking, at the toilet, talking, and so forth. But he believed the timing and the standards to be fair. He did claim that when the union men first joined the time study staff some mistakes and instances of over-severe coding were revealed and a number of studies were rechecked. The company engineer denied that the union had forced retimings in this way. The secretary stressed the fact that the great majority of men did not understand the new wage system and did not try to.

Even some members of the Executive Committee were rather bewildered and were rather reluctant to go along with the plan. He remarked too that many of the supervisory staff on whom the plan was so dependent for success and who would be shown up by its results were not at all enthusiastic about it. The strong opposition within the membership to the idea of incentive payment, which gave rise to the union participation program in the first place, has shown very little sign of change. The secretary attributed the opposition mostly to habitual prejudice and to past experience with rate cuts under piece work. The general feeling and his situation in the time study department combined to make his personal lot rather uncomfortable. He said that for a long time on the street, in bars, at meetings, and in the plant he was stopped for questioning about all phases of the new program. In addition, he was freely accused of having sold out to management.

Since prejudice and plain ignorance and lack of information also enter the picture the conflict between management and labor over scientific methods obviously becomes partly one of sentiment and partly one of divergent ways of thinking. As such it defies orderly analysis into separate rational arguments and any attempt at analysis runs the risk of misinterpretation. Despite this risk, after a series of discussions of the problem with a varied assortment of union people, one cannot forbear trying to isolate some of the factors which explain why so many workers think differently from employers and managers about job study.

The declaration of one union representative that "the men don't like time study because they know it is not being used for their benefit" is one clue to the "worker mentality" of which Leiserson spoke. This is something more than the natural worker dislike for a management tool which is used in the painful process of ferreting out inefficiency, lost time, waste motion, loose rates, and so on. It represents the attitude that no scientific hocus-pocus is necessary to distribute to workers their share of the income from an enterprise and the suspicion that when it is used it is for ulterior motives. This type of suspicion was one

of the most striking worker attitudes encountered by the Hawthorne investigators throughout their experiments.²³ The workers were prepared for the experiments and were guaranteed against financial loss; yet they viewed and entered each test with apprehensions. Their fear was always that management wanted to discover whether the work could be done in less time or for less money. Consequently, the initial work reaction and verbal explanation frequently would be that the work was harder in the test situation, the materials different, the light poor, or some condition changed which would serve to justify a slower rate of output and offset any advantage management might try to seize. This attitude and reaction are a familiar worker response to incentive wage methods. The ease with which workers acquire conditioned attitudes that intensify their resistance to advanced management techniques is also a familiar fact. One experience of an error by a time study man, or of incompetence or dishonesty on the part of management representatives, or mere knowledge of such an instance by hearsay may be enough to prejudice workers' opinions.

Case situation No. 10. One of the plants visited had been a decade earlier the scene of a widely heralded experiment in union-management cooperation in research and action designed to solve problems of production and restore plant efficiency. The venture collapsed due to a combination of causes culminating in the depression and left the workers suffering a reaction of disillusionment with the entire experiment and considerable resentment against the union leadership. Today negotiations are carried on under the shadow of the earlier experience which constitutes a very tangible obstacle to a satisfactory settlement of the work standards question. Representatives of both sides must be careful to avoid even the use of words like "research" or "joint job study" which would revive any of the old resentment.

As already intimated the difficulty is partly lack of understanding and knowledge of the methods in question and partly

²³ See Roethlisberger and Dixon, *op. cit.*

suspicion of management motives. But underlying it all there is an uneasiness shading into resentment which workers feel concerning anything that appears to be a purely engineering approach to their jobs.

Case situation No. 11. At a small steel plant some years ago an outside engineering firm had been brought in to study operations. One of the timers was a husky young fellow just out of college. He started in to time a worker in the ore pit. The temperature was around zero and the worker, a lightweight Italian, was down in the pit in the cold breaking out the frozen ore. The timer stood in a sheltered spot holding a watch on him. Other nearby workers noticed what was happening and somebody suggested that they study the time study man. So all the men in the department stopped working and stood inactive, some holding dollar watches. The superintendent appeared shortly, but when he protested the men retorted, "Put the big lunk down in the pit, time him, and we will match his production." According to the union story, this pretty well ended the use of time study in this plant.

The Hawthorne investigators noticed and commented on the character of this clash between what they called the approach of the technologist or specialist group and the approach of the worker. The former group is experimentally minded and is actuated by the logic of cost and efficiency and tends to overlook the disruption of workers' beliefs and social relationships which may be wrought by changes it makes. "One of the chief sources of constraint in a working group can be a logic which does not take into account the worker's sentiments."²⁴ In their attempt to combat this logic workers claim that almost any job contains elements or aspects which cannot be evaluated by the quantitative, stop-watch technique. It is on this basis that they usually object to having rates set by time study men who are not familiar with the jobs they study.

Case situation No. 6. A petition for an incentive rate change brought up by the union in a plant which prides itself on its

²⁴ Rothlisberger and Dixon, *op. cit.*, p. 548.

costly and expertly staffed incentive system was introduced by this sentence: "Recently a rate was posted on the second floor which demonstrates more clearly than any other thing we can think of the Time Study Department's absolute ignorance of the problem of actual working conditions."²⁵

Workers point to the unpredictable variations in quality of materials, in working equipment, and in other working conditions which characterize their jobs; they charge that allowances for delays, fatigue, and personal time must be largely matters of judgment; and the relatively few union men who fully understand job study methods point out that speed rating and effort rating are matters of judgment which can have an important effect on final incentive rates. Thus while a collective bargaining disagreement over a piece rate, bonus rate, or production standard may represent simply an honest difference of opinion as to what constitutes a "fair day's work for a fair day's pay," it is often complicated by management conviction that the union will not accept facts proved by study and by the union's baffled feeling that while it is not able to disprove management's technical case the men know their jobs and know that the rates are not right. This type of difference can easily generate a mutual suspicion and hard feeling which further obstruct a reasonable approach to the facts at issue. It is the workers' jealous sense of the personal, intangible qualities of their jobs and their inarticulate resentment against the impersonal, engineering approach which magnify the actual differences.²⁶

Organized labor finds a third basis for opposition to incentive payment methods in the claim that incentive plans too often are

²⁵ On the other hand one local union president who knows something of time study procedure suggested that time study men might do better on the thorny speed rating issue if they were given operations to study which they had never seen before. His point was that where time study men know something about a job they cannot help using what they think they know of it to give the company a good standard.

²⁶ It is a familiar fact, for instance, that in controversies over incentive rates workers often become more concerned over the rate differentials between jobs and occupations than they do over the absolute amount of their own rates.

abused by being mismanaged or that workers suffer through the misapplication of incentive plans or through the use of plans in plant situations where management as a whole is poor. The United Steelworkers union in particular has emphasized this type of claim. Its representatives trace many past difficulties to the methods by which the plans have been introduced. In plant after plant they have found incentive rates bearing the weight of production inefficiency which was directly the fault of management. They have had to contend also with complex payment systems involving long lists of rates in plants where the departmental and lower supervision have little better understanding of the plans than the workers. Finally, there are establishments in which the production program and processes have not been suited to the use of any incentive method or to the plan in effect.

Case situation No. 9. This union has been cooperating in installing an incentive system in a steel fabricating plant in the Pittsburgh area where some of these difficulties had to be overcome. The union requested a wage increase which the obsolete and high cost plant could not afford. A new management came in which undertook to modernize and increase the efficiency of the plant and introduce a scientific wage system all at the same time. A minority of the workers had been on a set of unsystematic piece rates and the rest on hourly wages. The plant embraces a considerable diversity of production operations and does a good deal of a job order business. Hence, although the union leadership is cooperating in the project as a means of bettering the workers' earnings, union representatives in touch with the situation are fearful that the incentive plan will be relied on too much for the expected increase in efficiency when substantial engineering changes and general management improvement are necessary. One of the conditions of success is cooperation from the workers, for the payment system places first responsibility on them to indicate to management and supervision the improvements and corrections necessary. Rank and file attitudes so far have not augured well for this

cooperation. A second condition is a proper response from the lower supervisory personnel. The wage system is bound to show them up at many points and their cooperation will be essential. Thirdly, management must be able to remedy fairly and expeditiously the most important defects in operations which the program will reveal. Another question in the minds of the union group is whether incentive payment can be applied successfully to operations so largely non-repetitive and subject to change.

The experience of the steel workers with this aspect of the question is duplicated in many plants in other industries. In some of the apparel industries workers charge that employers are satisfied with inefficient production processes because, under the piece work 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. Continuity of production is important under practically any incentive scheme in order to avoid the interruptions of work and hence of earnings which are a chief cause of grievances among workers. Adaptable production processes and efficient management are required to handle this one cause of trouble alone. The additional task of measuring and determining proper work standards also demands an adequate and trained personnel. Unfortunately, management standards equal to the best incentive wage practice are not common in manufacturing industry.²⁷

A fourth basis of union opposition to incentive wage methods is just plain lack of confidence in the good faith and fairness of employers who utilize such methods. This, of course, can hardly be considered a distinct and separate cause of labor's attitudes, for suspicion of the motives of employers and their representatives colors almost all labor criticism of incentive

²⁷ Mr. Solomon Barkin, Research Director of the Textile Workers Union of America, has written a series of articles appearing in *Textile Labor* in which he examines and exposes the pitfalls, errors, and sheer incompetence which beset industrial management job study practice. See issues from March, 1941 to October, 1941.

plans and time study. It is in the nature of incentive wage methods that they should be identified in workers' minds with employer schemes for increasing profits at labor's expense. As one union official remarked, the "science" of too many incentive plans seems to consist of getting the most effort for the least incentive.

Case situation No. 2. The habit of suspicion dies hard and is found to persist even in good bargaining situations. At a large eastern electrical products plant where a strong union has established satisfactory controls over the existing incentive plans the union report of a conference with management on some rate questions contained the following statement: "We also stressed the tie-up between time study men, cost men, and planning men and pointed out that until time study men were wholly impartial as well as being on the level, this 100% mistrust would continue to exist."

Employers who undertake to pay their workers by results, therefore, face the possibility that any changes in wage rates or job standards they wish or need to make will meet objections based not only on fact but on accusations of dishonesty and exploitation.

Workers cite many specific employer practices in explanation of the unpopularity of different incentive systems, but all these practices seem to have had a single end in view—the lowering of incentive rates or the raising of work standards. Historically, rate cutting has been the outstanding cause of worker antagonism.

Case situation No. 12. A shop steward in the leather industry told of his experience of a rate cut in a plant using the Bedaux system which will serve as a typical instance of the more obvious, pre-union type of rate lowering. He was one of a group on a job with a base rate paying \$25 a week; at their going rate of production they were receiving a \$10 weekly bonus. Then two of the boys got into a race and stepped up their production about 15 to 20 skins a day. Shortly the whole group was laid off for two weeks or so.

When they went back, maintaining the old rate of production, they received the same base rate but their bonus was only \$2.50. The union man telling this story said he quit this job in disgust; however, this was not a practicable alternative for most incentive wage workers who experienced such cuts.

Workers charge that it was by accomplishing such rate and standard changes over long periods of increasing industrial efficiency and in a variety of obvious and subtle ways that employers have used incentive wages to "speed-up" workers and rob them of their rightful income.

Case situation No. 13. An instance which occurred at a paper mill represents a pattern of rate paring which became all too familiar to workers. In the first year of union organization at this plant, a new corrugated paper machine was installed on which a good rate was set and the men were making high earnings. Management cut the rate and the men pushed a little harder to make up; then management cut the rate again. The president of the union was not sufficiently aggressive or was too new at the game to prevent the cuts. Finally, the skilled operator on the machine transferred leaving the rest of the crew saddled with a rate on which they could not make out. The union did at last get an adjustment but not to the original rate.

Candid management representatives admit that employers have taken advantage of incentive methods in this way on a rather general scale in the past and that they must take the chief blame for the disrepute of incentive systems. Personnel men in two different industries testified to the importance of the ever-present worker fear of rate cuts when they told how production immediately rose 20-30% in their plants as soon as management announced a guarantee of piece rates.

Union officials in several different industries made it clear that despite agreement guarantees against it workers consider rate cutting and raising of standards one of their most persistent problems. In the organized industries where unions have put a stop to openly announced reduction, managements have devised

ways of concealing and indirectly accomplishing what amounts to the same thing. The more technical incentive schemes which are least well understood by workers, such as task and bonus plans and the unit systems under which all tasks are expressed in a common non-monetary unit of measurement, have sometimes facilitated this type of rate cutting. The calculation of individual money earnings under many of these systems is apt to be difficult enough so that the ordinary worker either makes no effort to keep any check at all or keeps a very inexact check on the relation between his output and earnings. The individual check on earning standards becomes even less adequate when these systems are operated on a group basis and earnings are related to group output; it is just that much more difficult for the worker to investigate and judge the many possible reasons for the fluctuation or decline in his earnings. Moreover, the fact that an employer has made no rate cuts for quite a period and has announced a rate guarantee to his employees is not always accepted by the latter as complete security, especially if they have recollections of relatively recent and painful reductions.

Case situation No. 14. The background of worker attitudes on rates at one rubber plant was indicated by an efficiency engineer who commented frankly on his company's policy during the depression: "In those years we knocked hell out of rates, slashing right and left; we didn't care how hard the men had to work. We had to keep from folding up."

There are few manufacturing industries in which rate cutting did not occur under the compulsions of the depression years, so that most workers face present rate guarantees from this common background of experience. In addition, as has been noted, workers are quick to suspect management's intentions and even its word and when their suspicions are aroused workers and their representatives can convert pretty slim materials into circumstantial evidence for their accusations.

Case situation No. 6. An illustration of how a union builds up its case against management policy is furnished by

the situation at a large rubber company where the local union is strong and has secured practically all the rights of review and participation it has requested but where, nevertheless, the question of changing standards is a constant and rankling issue. The union time-study representative asserted that he suspected the Time Study Department of a conscious campaign to tighten up on standards. Several years ago the company asked for a flat cut of 15% and used the threat of large scale withdrawal of work from the home plant because of competition. The union asked for statistical documentation of company statements, did not get it and refused the cut. The cut was not made and no large amount of work left the city. On the other hand, in two years' time the union presented management with demands for a wage increase. The union feels that management has been trying to adjust its labor costs by calculating all new and revised standards of performance very closely so as to eliminate a few minutes here and there. It feels that the following items are additional straws in the wind: The union has tried to get hold of old time study records and standard practice information for purposes of comparison with new standards, but has been largely unsuccessful, the management replying that the data are mislaid or otherwise unavailable. A union official recalls the remark of a time study man that the staff has made much less use of speed rating over 60 (normal) for the past several years. The union interprets in the same way the answer a company vice president made to a union question recently; he said that he believes the men are not working as hard now as they did a few years ago. Management policy on process allowances is also giving the union concern. Under premium systems process allowances are one way of compensating the worker for idle time which occurs on the job, usually within the operating cycle, but which is beyond the operator's control. Schedules of allowance are calculated to cover idle time on each job and as a result the proportion of premium paid to work produced varies with the amount of process allowance required to fit the conditions of the operation. The management of this plant was said to be acting increasingly on the theory that idle time should not be paid

for at the usual rate of 85 B's an hour (expected earnings in this plant) but at 60 B's even though the idle time is required by the nature of the productive process. So more and more jobs that are non-repetitive are being placed on process allowance schedules which pay for idle time at the lower rate. According to the union, that means that the worker can make 80 B's as usual but has to step up his production an undue amount to earn between 85 and 90 B's. As a result the average earnings of workers on allowance are below the average of other workers.

The fact that makes changes in incentive rates and standards an endless cause of controversy is that in the nature of the case such rates cannot have permanence; at least they cannot have permanent accuracy and fairness. Time passes, conditions change, and workers become more expert at their jobs and the result is "loose rates," i. e., rates which, if they were "fair" when they were originally set, are higher than is justified by the time periods now required to perform the operations. Incentive rates resemble connections between operating machine parts in the way in which they work loose with vibration and wear over a period of time. On the other hand, the longer the period of time for which a worker has been performing certain operations at given rates the stronger tends to be his belief that they are fair and proper. Furthermore, as one plant manager observed, the very existence of some loose rates and standards in a plant means a continual aggravation of the whole problem for they make new rates seem too low by comparison. It was in recognition of these facts that an efficiency official in the rubber industry stated that the only way to overcome slackness in rates and standards is to keep constant check on operations and to correct immediately any appearance of looseness; but he pointed out that this requires a large and expensive efficiency staff.

It is the time factor also which heightens the controversy over the question of whether rates and standards actually become loose and inapplicable or whether the change is an increase in the efficiency of workers themselves who thus deserve the

benefits of their increased earning power. Employers who are particularly plagued by this problem are at pains to demonstrate that in a shop dominated by a strong union it is the company that is at a disadvantage. Over a period of time the efficient conduct of any enterprise involves many small management changes, improvements in flow and process, materials, and equipment no single one of which is important enough to justify management's making the effort to secure a rate change. But the cumulative effect may be an increase in productivity which renders the existing incentive standards quite inaccurate. On the other hand, employers point out, a vigilant union is not apt to permit the slightest increase in the elements of a job to take place without demanding a commensurate rate increase. In many of the same industries and shops, however, union workers and officials claim that employers are "robbing the efficiency" of the workers by restudying and rerating jobs on the ground that changes in operations require it. A union leader characterized the process as one of "nibbling" away at rates. This claim is made most forcefully in connection with industries like rubber tires and products and with such occupations as the operation of machine tools in which individual skill and effort play an important part; the contention is that through experience, native skill, and the application of his own inventiveness the worker makes time-saving discoveries which increase his efficiency and entitle him to the additional income.

Case situation No. 15. The union in a mid-western rubber products plant has been concerned for some time over the policy management has been pursuing with regard to its job standards. Most of the friction has centered around small changes in process and materials instigated by management and which workers feel have amounted to infringement of the agreement which forbids rate or standard changes unless they are made necessary by changes in method, product, etc. The president of the local explained that the union feels the company has exhausted for the time being the substantial machine changes and larger innovations which alone justify

changes in standards and has had to resort to minor methods changes. He referred to the operation of making lead inserts for battery posts. Twenty cavity molds are used, and management recently perfected its equipment so that it expects 20 inserts to a mold. It changed the rate at the same time saying that the rate had been set on an expectation of 19 inserts. The men had not even known the basis of the previous rate and knew only that they were working a 20 cavity mold in each case. A related grievance pertains to the manner of changing standards when a change in method has occurred. The union contends that only the affected elements within the operation should be retimed, not the whole operation. It asserts that management's tendency is to make a change in one element an excuse for restudying all and thus catching the shortcuts developed by the workers. As an example of the latter the president described his own experience with the process of soaping a mold. He found that he could do it satisfactorily and more expeditiously using much less soap. The time study man insisted this was a change in method and warranted a change in standard.

It is the claim of some union men that the clever and faster workers educate company time study men. The latter take note of the methods and innovations and short cuts adopted by these better workers and then make an attempt to see that they are incorporated in the performance of other workers, or at least in the job standards by which rates are computed, thus furthering the general tightening process.

It is only natural that workers should be reluctant to give up loose rates or standards regardless of how they come to be loose and whether they are unreasonable or not, and as some management officials have indicated, a firm will occasionally resort to subterfuge to correct them rather than make the bargaining fight. The plant manager at a paper mill described some standards particularly out of line in one of his departments and said he would have to get the department superintendent in and devise a nominal change in methods that would enable them to review and change the standards.

Tire-building jobs in the rubber industry illustrate on a magnified scale the conflicts over loose rates and changing operations which appear in lesser degree in a great many industries. In good part, tire building has not been broken down into specialized operations, but is carried through from beginning to end by the same worker. Hence, the job cycle is a long one and is composed of many separate elements. This multiplies the opportunities a worker has to increase his efficiency not only by increasing his over-all skill, but by developing short cuts, applying special knacks of the trade, and eliminating operations.

Case situation No. 7. The shop chairman in a tire plant described some typical short cuts developed by tire builders in this plant which had helped create a question as to the accuracy of the standards involved. One short cut developed in the manner in which the tire is broken from the drum, it having been glued on to start the building operation. The men have become expert in the application of just the right amount of glue in just the right manner so that breaking it away is a simple, speedy process. Another short cut: The task of tucking over-width cord into place without wrinkling was formerly done with a paddle-like instrument, but the workers have become very adept at doing it with their fingers, simultaneously with the stitching, thus cutting the time required. Another point at which the men have been able to cut their time is in the process of centering the fabric. This must be done with accuracy and it has been customary to provide a separate element for straightening the fabric after it has been applied. However, the men have become so expert at centering accurately while applying that this element of the job is practically eliminated. The question arises in each of these cases as to whether it represents an increase in worker efficiency or a change in job elements such as to justify rerating of the job.

Tire building has been characterized by tremendous increases in unit output and managements admit that workers have contributed much.²⁸ At the same time, tires are a product that has

²⁸ J. D. Gaffney, in *The Productivity of Labor in the Rubber Tire Manufacturing Industry* (New York: Columbia University Press, 1940), con-

been subject to continual constructional changes and technological improvements in manufacture so that management has frequent occasion to restudy and revise standards and rates. A company engineer estimated that through changes in methods and construction changes it is possible to have a complete replacement of rates in a tire room in a year's time. This indicates the importance in standards disputes in this industry of the question of specifications and whether they are being correctly followed.

Case situation No. 6. Under these conditions of constant change it is always a question when to restudy and revise the standard for a job as a whole as against restudying specific elements within the job. At one large plant the management established a rule of not restudying a job entire until 75% of its component elements have undergone some change. But this criterion is itself subject to dispute inasmuch as standard practice on a job may change and increase the number of elements from 75 to 150. In asking clarification on new standards proposals the union seeks comparison of the new setup with the old, for its own protection. This takes time and management fumes at the "delay." The union president emphasized the difficulty of fixing responsibility along a long line of authority for a possible attempt to trick the union in a case like this.

Some management representatives hold 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, distinguishing management from labor contributions and both from changes in specifications is difficult. Further, an amicable disposal of the problem is made even more difficult by the fact that non-union or weakly organized competitors in the industry

cludes: "There is no doubt but that the average worker in the industry at the present time has less idle time, fewer and shorter rest periods, and that his work is performed with less wasted effort and at a higher speed than 25 or even 10 years ago," p. 105.

somewhere will have brought their rates into line with the increased efficiency no matter who was responsible for it.

Case situation No. 7. At a tire and rubber plant visited during this study the local union was convinced that management had been waging a campaign for some time to tighten up on all job standards and negotiations had been interrupted several times by strikes and stoppages. The union did not charge management with dishonest or false timings. The crux of its accusation was that management's time study methods have become less liberal and that operations are checked on so constantly that the mere use of these methods resulted in rate cuts over a period of time by taking from workers what they contribute to their jobs and setting new and revised standards that are tighter than on other comparable jobs. It was finally agreed that some test studies should be made, union and management taking independent observations. They were to cover some recent tire models, for which the union thought the performance standards too tight, and some old staple models on which standards have been in effect several years and which both parties agree are satisfactory. It was the hope of the union that this test would show up management job study methods in terms of the old, established and accepted standards.

Rate changes and new rates provide a constant flow of legitimate grievances from workers, or at least of quite proper requests for clarification and justification. But in addition to this kind of bargaining, fair-minded union officials will admit that they are called upon to consider and carry to management a large number of grievances dealing with incentive rates which have no basis in fact. Such grievances are trumped up or imagined or result from workers' all too ready propensity to confuse an increase in their output with an increase in their effort. Often enough these cases can be explained as maneuvers by workers designed to increase their earning rates.

Case situation No. 16. The following story was told by the president of the local union at a paper products plant. The

union was questioning a new rate proposed by management, hoping to get it raised. It was necessary to the union point that none of the workers make out on the rate. However, a supervisor promised a girl \$2.00 in the form of a wager if she could make the rate calculated by the time study department. She did, thus in effect proving the rate which remained unchanged. The union leadership now admits that this rate has proved quite satisfactory to all concerned.

Case situation No. 6. In a rubber plant on one occasion when the application of some new standards was being held up by the protest of workers that they were too tight, a settlement was reached after the personnel manager and the local union president went into the shop unannounced and observed operations for several hours. The union president told the management representative that he could make 100 B's an hour on the protested standards and to forget the complaint. In a similar case involving a die cutting operation the two men went into the plant again and on this occasion the union official took the place of the operator for a spell to show him how he could make the standard. These incidents illustrate the point made by the Personnel Manager of this plant that the right possessed by the grievance representative in this local to check and hold up standards before they are applied puts too much responsibility on individual representatives. Workers tend to pre-judge standards and hence to limit output.

But there are other reasons; complaints over incentive rates may serve simply as a convenient outlet for other tensions and fears that accumulate within a group of workers. Grievances can be traced sometimes to the inter-personal situation existing in a plant, to rivalries and resentments and competitive insecurities that grow up between occupational groups and departments.

Case situation No. 17. In a pajama and sportswear shop, a group of women in the shirt department complained that their rate was too low, that it had been set in the pajama department on faster machines (because of a lack of orders

the girls in this department were working on the same order as the shirt department). A check up was made and it was found that contrary to the charge, the shirt department machines were the faster. To clinch the case some of the girls from the pajama department went over to work on the shirt department equipment to show that the rate would yield expected earnings. This case was explained as being partly a matter of the older women fearing the consequences of the influx of young girls and of rivalry between the two departments.

Sometimes rate grievances are simply a natural expression of resentment felt by a worker or group towards a particular management representative or one of its policies. This is why ineptness and an authoritarian manner on the part of management in administering incentive wage methods so often redounds to its own ultimate disadvantage. It also helps to explain why it is important that workers should have real participation in management decisions affecting them.

Case situation No. 18. The truth of these observations is often revealed to management in quite trivial incidents. The superintendent of a paper plant told of once finding that two of his pressmen working next each other on two identical machines were nevertheless working at different speeds, the speeds being mechanically controlled. Without giving the matter much thought and therefore without notifying or consulting the men he had the speed of the second machine brought up to equal that of the faster. When the two pressmen came to work the next day and discovered the change both refused to work until the superintendent ordered the second machine returned to its former speed.

The detailed practices which unions accuse employers of using to exploit incentive wages for the purpose of reducing their labor costs at labor's expense include such things as dishonest time studies, secret time studies, pace setters, unjustified job changes, concealed rate changes, and so on. These practices need not be discussed at this point since they will be taken up in

Chapter VI together with the agreement provisions and other measures which organized labor has evolved to combat them.

Elimination or modification of incentive methods. On the strength of the various kinds of criticisms and grievances which have been reviewed in the preceding pages many unions in the manufacturing industries officially favor the abolition of all forms of incentive wage payment. It is evident that few have achieved this aim. Moreover, while large numbers of locals doubtless have made known this aim to their respective managements, it appears that in the majority of cases it has not come to be an active or serious bargaining issue. Either membership sentiment has not been strong enough or union leadership has been convinced that individual managements cannot be asked to buck prevailing practice in their industries. One of the frequent obstacles in the way of conversion to day work, as is conceded by union representatives, is a level of incentive earnings so high that to make the change without reducing workers' earnings would require hourly rates entirely out of line with wages for comparable occupations in plants and industries on day work. An auto worker organizer pointed out that the major conversions in that industry preceded the large wage increases later won by the union and thus permitted shifts to hourly wage rates that were satisfactory to the workers and which still seemed within reason to employers. Investigation reveals many instances in which workers rejected a proposal that they change to day work at hourly rates representing a compromise between their going incentive earnings and base rates.

The automobile industry is the only one in which widespread changes in methods of wage payment have taken place under 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 smaller parts companies. There seems to be no obvious explanation as to why such large scale changes have been confined to the one industry. However, as some union and employer representatives in this and other in-

dustries have suggested, the high degree of rationalization in automobile production, the fact that in many phases of production the pace is governed by lines and conveyor systems, and the fact that labor costs are such a small proportion of total costs are undoubtedly among the factors which have made automobile manufacturers less resistant to hourly methods of wage payment.²⁹ In the early days of union organization some plants changed to an hourly basis before bargaining relations were established; the union claims this was usually an effort to forestall unionization. In any case the union had to contend with strong opposition and was forced to strike to carry its demands in many plants. Usually the union gave assurances, verbally or by agreement, that existing standards of production would be maintained, and in return required that hourly rates would be negotiated or that they produce certain stipulated average earnings. A frequent effect of the changes was a narrowing of the range of earnings between the best and poorest workers, and in some cases it appears that workers suffered an initial cut in their average earnings. On the other hand it was possible in certain situations for the conversion to mean an improvement in earnings.

Case situation No. 19. At a large auto parts plant union organization began to acquire some strength in 1936. The workers, most of whom were on piece work, had habitually limited their output but with the union back of them they started to increase their output and their average earnings. When conversion to day work occurred not long after it was on the basis of this new average earnings level and therefore amounted to a substantial increase.

It is necessary sometimes that the union be vigilant immediately after a plant has eliminated incentive payment to see that by

²⁹ For a discussion of the change in wage methods in this industry which supports this explanation, see C. B. Gordy, "Measured Day Work Replaces Incentives in the Automobile Assembly Industry," *Society For the Advancement of Management Journal*, Nov. 1936, p. 162.

informal arrangement between supervision and workers payment by results does not revive again on a piece-meal basis.

Case situation No. 20. At another large auto parts plant which had recently changed to day work a group of workers asked for a wage increase. Dealing directly with management representatives they arranged for an increase conditioned upon an increase in their output. The chairman of the local heard of the plan and called a meeting of the group involved. He told them he thought they were heading for trouble and that if they continued they were not to come to the union for help. He advised working the production standard and no more. Management protested but the group continued at standard the next day. The question of reviving incentive wages has not come up since at this plant.

In other industries unions have eliminated incentive plans only in isolated instances and in some, like steel, the study disclosed no cases in which a local had brought about such a change. In the textile industry there is an instance of a group of small shops under an association agreement in which the union was successful in securing a change from piece work to day work but it had to agree at the same time to accept an increase in work load and the establishment of minimum standards of production. In the clothing industries, as noted earlier, the unions have been responsible on the whole for increased use of piece work in recent years because it better suits the various stabilization efforts and eases the problem of supporting high wage levels. In large companies which pay incentive wages to a large proportion of their workers it is not uncommon to find the local unions pressing for extension of the incentive plans to cover many of those who remain on hourly pay. This is not necessarily inconsistent policy even for a union which professes to dislike incentive payment on principle, for it is likely that the leadership first sounded out management on the question of eliminating the plan and decided it was an impossible objective. Since hourly paid workers are nearly always jealous of the higher earnings of incentive workers the next best policy is

to concentrate on setting up effective safeguards and enabling as many as possible to participate in those earnings.

This, in essence, has been the policy of the union in the flat glass industry, and in pursuing it the union has effected a very substantial increase in the coverage of the incentive plans.

Case situation No. 21. A series of entries in the grievance records of a local in this industry show how the hourly paid employees feel about the incentive system:

A request that bookers, truck drivers, pull-out men, and washing machine men be placed on incentive.

"Casting hall employees would like to discuss the possibility of establishing some sort of incentive."

Cutting gaugers, cutting room helpers, and rough grinder gaugers petition to be put on incentive.

Bonus asked for glass stackers and loaders, because "these workers are wedged in between the grinding-and-polishing and wareroom bonuses and their work has increased accordingly."

Most of the maintenance crews even requested "some form of bonus." There were also other requests.

Most were rejected, some were granted, and other petitioners were mollified with hourly rate increases.

In this connection, some points of view expressed during agreement negotiations in this industry are interesting. A delegate from one plant local described his group's reaction to incentive payment as follows: "If I can get them all on it, it's O. K., but then if they are not all on it they all want off it." Although management was adamant against any elimination of the incentive plans as proposed at the conference, officials became exercised over union efforts to include within the pay provisions of the plans operatives who were "wedged in between two incentive groups." One executive complained, "That shows how extensive the ramifications can get. It will be helpers, and then the truckers, and then the fellows that load in the cars . . . I don't think they would miss the factory cat."

It is interesting too that this union has actively pushed group incentive methods whereas most labor organizations favor individual types. In flat glass the reason is partly ideological; the union leadership favors the rough wage equalization which goes with group payment. In any case production methods in this industry make group arrangements more suitable and the group method permits the inclusion under the incentive plans of the largest number of workers. In addition the group method enables the union to maintain a greater degree of control over the incentive system itself and over the workers in order to regulate speed-up and individual high producers.³⁰ Some local union officials were interviewed who expressed the opinion that the eventual abolition of incentive methods in their plants might be achieved indirectly by using every means to make such methods less profitable to employers—getting every worker possible covered under the plans, raising and guaranteeing base rates, guaranteeing certain earnings above base rates, securing high lost-time guarantees, and so forth—until employers themselves come to prefer straight hourly wages.

On occasion unions have found it in their own interest to cooperate in or consent to a change or reversion to an incentive payment method in particular plants; the reason is almost always competitive necessity.

Case situation No. 22. At an aluminum products plant the local union had secured the elimination of the piece work system partly on the assurance that the local of another union which was organizing a competing plant in the same city would abolish the bonus system at the latter plant and obtain a wage increase which would equalize cost conditions between the two. When this assurance did not materialize the first plant began to lose business and finally had to close down

³⁰ One reason the workers are content to remain on piece work at a large automobile plant which has never had to consider abandonment of its incentive plan is that on the line operations the group method of payment provides occasional opportunities for extra earnings when the group maintains production in the absence of a few of its members or when new workers are being broken in at company expense.

altogether. It reopened only when the local proposed to management that it was willing to operate on the basis of the bonus system in effect at the competing plant.

The auto parts industry affords several examples of plants which have returned to some incentive basis with the union's consent after first having changed to day work at its demand. Some of the modifications that have been worked out are interesting compromises between the incentive idea and the security of hourly wages. Several examples were encountered among the plants visited in the auto parts industry. In each case the union had previously eliminated a regular incentive plan but after a discouraging interval on day work assented to the compromise scheme as a means of overcoming the loss of efficiency and concurrent economic difficulties which resulted from the abandonment of incentive wages.

Case situation No. 19. At one Detroit company employing several thousand workers which found itself in difficulties as a combined result of converting to day work in 1937 and the recession of 1938, the union realized something had to be done about declining employment. It refused to return to piece work as the management suggested but accepted the plan now in operation. Briefly, this plan establishes a maximum hourly rate for each occupational classification in the plant and a minimum rate 15c below that rate but in no case below 80c per hour. Four levels of efficiency in performance are recognized (95-100%, 90-95%, etc.) with corresponding 5c differentials in pay from the top rate for each classification. Efficiencies for each worker are computed weekly and a week's warning is given before a worker's pay is cut following a fall in his efficiency. The incentive principle is still present in this payment method to a limited degree but with fixed maximum and minimum earnings and only four levels of efficiency the workers enjoy most of the security of hourly wages. This firm reports that plant efficiency is now higher than it was under piece work. A number of other companies have been interested enough in the plan to send representatives to study it.

A good many local unions have succeeded in modifying the incentive systems in their plants where they could not eliminate them. Generally, the tendency is to get away from the more complicated, technical plans. Unions have been most determined in their attack upon the Bedaux system and any similar plans which they feel withhold earnings from the worker. Ordinarily the preference is for straight piece work.

Case situation No. 23. A Detroit automotive products plant which was operating under the Bedaux system acceded in 1937 to the union request that it eliminate all incentive method. The union president said the company did this despite a mere 25% union membership at the time because the union was considered a temporary phenomenon. This first agreement was for six months. In that time efficiency fell off badly and so did the volume of work and employment. The union president places much of the blame on the company which was anxious to see day work fail. Supervision did not do its job and besides workers were discouraged from giving normal effort by the very fact of dwindling business. At the expiration of the agreement the union was unable even to renew it and the company went back on the Bedaux system. But by 1938 the union was able to secure another agreement and persuaded the company to change to a straight piece work basis. It was provided that "The piece work rate is to be equivalent in earning capacity to the present earning rate at like production." At present there is little controversy over rates or methods at this plant. It is an interesting sidelight that although the management began quoting its standards in dollar figures when it changed to piece work, the workers persisted in translating rates into the familiar B's so management returned to this practice also.

A natural question that arises in this connection is, What policy with regard to incentive methods is adopted by unions involved in union-management cooperation programs and similar bargaining situations in which the workers are granted exceptional rights of negotiation and participation? The answer of United Steelworkers representatives is that in the plants

where their workers have been admitted to genuine participation in management decisions relating not only to conditions of work but to central problems of cost and production the method of wage payment ceases to be an issue. The focus in such cases is upon earnings as a direct function of total plant performance and the workers have no reason to suspect that the method of payment might interfere with their just earnings. In fact, it is realized that piece work or a bonus method can effect a more immediate response of earnings to output increases than hourly wages. In the several cooperative ventures to which this Union is a party, the systems of payment which were in use at the beginning have remained unchanged.

In considering the ways in which unions attempt to modify incentive wage methods a simple but important fact which should not be overlooked is that regardless of whether or not an actual change in type of payment method is obtained the establishment of the right to bargain collectively amounts to a most important change in an incentive situation for the workers concerned. A genuine right to negotiate over incentive rates, to bring grievances, and to write certain safeguards into the agreement often proves to be a more effective remedy for an unsatisfactory incentive plan than would its elimination or a change to another method. It should be mentioned in this connection, therefore, that it is a well-nigh universal policy of unions as regards incentive payment methods to incorporate in their agreements with employers certain general or specific protections against loss or hardship under these methods. The most common safeguards are those which guarantee that changes in rates and standards shall be subject in some measure to negotiation, guarantee workers against rate cuts, guarantee some minimum earnings under the incentive plan, and protect workers in connection with time study. The many kinds of protective clauses which are written into union agreements do not need to be enumerated in detail here, for they comprise the subject matter of Chapter VI.

What has been said about general union attitudes and policies in relation to incentive wage issues and the kinds of changes labor seeks to make in incentive methods leads to the obvious conclusion that the type of incentive wage situation which is most likely to prove acceptable to organized workers is one which includes some of those features of hourly wages by which workers set most store. For example, it will offer some security of earnings, usually in the form of a straight guaranteed minimum, to offset potential interruptions and fluctuations in incentive rates. In some of the most successful incentive wage cases it is the base rates themselves that are guaranteed and there is only a slight differential between base rates and average incentive earnings. In other cases experienced workers are assured a specific rate of earnings over and above guaranteed day rates. Frequently in these cases the nature of the product and the production process is such that there is seldom need for rate changes; if it is a plant in which re-determination of rates and standards is fairly continuous, the process is known to the workers and they either participate or have complete rights of review and challenge. This check and a similar one, if necessary, over speed of operations itself give workers protection from the speed-up over time which they have always feared. It is clear that an incentive plan under these conditions actually differs little from day work properly administered except that it may have the advantage of permitting workers some extra earnings.

Case situation No. 24. It is a curious irony that at one automobile plant, although it is entirely on a piece work basis, the conditions of payment are so closely regulated through high base rates and various earnings protections secured by the union that management and the union have found it mutually convenient to make some concession to individual worker differences by recourse to a method employed under hourly wages. Thus under certain circumstances employees on similar work may be rated in Class A, B, or C according to their speed and skill and paid different earning rates to

correspond. This is done primarily where operations are on a group basis and in recognition that even on line jobs one man can handle more than another. It is also an accommodation to older men, enabling them to hold line jobs at lesser pay.

At the same time it should not be thought that the unions which have been successful in shifting their plants to a day work basis have thereby escaped all the problems and grievances which they previously attributed to incentive wage methods. They have found that carefully administered production standards which accompany hourly rates raise many of the same problems and with but little change of emphasis.

Case situation No. 20. At a large auto parts plant which had been on day work for a couple of years since its conversion from piece work, the shop chairman was eloquent in reciting the grievances which had not been settled by that change and which were still arising. Management timing and job study activities continued to produce much resentment. These activities included micromotion study and the union had rejected a management offer to hold some explanatory sessions for union representatives. Another source of aggravation was the fact that standards were being changed continuously through improvements in equipment and methods. Workers also objected to the management practice of using temporary standards on new operations until maximum efficiency is reached when permanent standards are fixed. The shop chairman claimed that the time study men no longer speed rate operators (i. e., an estimate of individual efficiency in relation to so-called normal efficiency) over 100% efficiency whereas in the piece work days 110% and 115% ratings were common. It was charged also that fatigue allowances were increasingly being set at 5% instead of 10%. One of the major causes of dissatisfaction in this plant was the question of time lost through work interruptions. The workers felt that unreasonable hardship was caused by the management rule that no reduction was to be made in standards for

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unavoidable interruptions in production until such down-time exceeded 30 minutes in a day.

In general, it can be said on the basis of the plants covered by this survey that workers exhibit least dissatisfaction with incentive wage methods or desire for change in those situations where managements, voluntarily or through collective bargaining, have adapted their incentive methods to meet the conditions outlined earlier in this paragraph and where the local unions possess substantial rights of negotiation and participation which are exercised on a basis of mutual confidence.

CHAPTER IV

UNION POLICIES : RESTRICTION AND ASPECTS OF THE WAR PERIOD

ON March 23, 1942 Congressman Rich told the House of Representatives the story of a worker who was suspended by her union for doing too much work. The story appeared on the front page of *The Washington Post* and received considerable coverage from the press throughout the nation. As related by the female worker involved, suspension followed arguments and fighting which occurred among a group of workers on a packing operation in a Detroit stamping plant. Among the causes of the ill-feeling which led to fighting was the fact that the girl in question and one other worker handled three chutes apiece and were accused of being "job-killers" by some of the other workers in the group who handled only two. Whether these workers were being paid on an incentive basis so that the workers who handled the extra chute earned more was not indicated and does not matter, for the incident serves as a typical example of how friction and conflict arise over job standards and differing capacities in workers.¹ The important point is that such wide publicity was given such an unexceptional occurrence, the type of workshop incident that would have very little news value in ordinary times. It is striking testimony of the way in which the war program has turned the spot light on labor productivity and on union policies which affect efficiency. No analysis is required to see the connection between the incentive payment question or the union policy of output restriction and problems of war production. When Donald Nelson testified before a Senate committee on methods of increasing war production certain of his remarks on providing incentives for workers were widely interpreted as being a recommendation that incen-

¹ Nor does the fact that the union later reinstated the worker upon her assumption of full responsibility and her denial that job-killing was an issue in any way alter the illustrative value of the case.

tive wage methods be extended in the war industries.² Other witnesses before this committee and industry spokesmen in the press and on the radio made the labor "slow-down" a concept familiar to the public. One of the major industrial unions, the United Electrical, Radio, and Machine Workers, called attention in a very challenging manner to the joint problem of incentive wages and restriction of output by means of a large advertisement widely inserted in the public press.³ In this notice the union announced its readiness, provided the companies with which it has agreements would accept the stipulated conditions, to increase the volume of production in its plants by 15% independently of machine changes and technical improvements. One may infer from this proposal, of course, that output is being held 15% short of potential at the present time by this body of workers. The union stated that the major problem in effecting such an increase is incentive rates and job standards. Another important development was the War Production Drive and the related program of local labor-management committees promoted by the War Production Board.

For the light it throws on labor's attitudes towards incentive wages and other management schemes for increasing industrial efficiency the labor policy of restriction of output deserves careful study and unprejudiced understanding. In industrial relations literature restriction is a term loosely applied to a whole range of worker and union behavior. For purposes of this report it refers to the varying degrees of withholding of efficiency, by individual workers on their jobs and usually acting in concert, which occur in manufacturing industries. It does not refer to the restrictive practices which take the form of make-work rules and which have been developed most conspicuously by some of the craft organizations. Some make-work policies have crept into the industrially organized industries and it is true that it is not always possible to distinguish clearly between the

² See the *New York Times*, March 20, 1942.

³ Appeared in the *New York Times* on March 25, 1942.

motivating purposes of the two types of policy.⁴ However, this discussion is limited so far as possible to restriction as a practice which finds direct expression in the amount of effort put forth by the individual worker and which occurs primarily as a counteraction to incentive payment methods.

Even from this limited point of view, restriction is a concept which eludes precise definition, primarily because it is so difficult to secure agreement on norms from which to judge whether workers are producing at reasonable efficiency. Given this initial uncertainty, it is even more difficult to measure the extent of production limitation in a particular situation for one never is sure whether the group of workers being observed is average in capacity and whether its working conditions are normal. Therefore, since this study is based largely on interviews with union and management representatives it was impossible to obtain a clear picture of the extent of restriction in the various plants covered. Mere complaints by employers that workers do not achieve optimum output are not in themselves conclusive evidence of deliberate restriction, any more than worker assertions that restriction is not practiced are evidence of optimum effort on their part. In plants where individual effort is an important factor in determining output workers usually are able to increase production markedly for a rush order or other special cause, but these temporary spurts do not constitute a basis for judging normal production. Nor can the slackening tempo of work which sometimes denotes the low period of a seasonal industry be called restriction.

There are two general senses in which production may be thought of as being restricted by workers. In one sense it is by conscious adoption of a policy of pegging individual effort and output at a level admittedly below that previously attained or known to be attainable by some workers. Of course, such a policy may cease to be a conscious one and become instead a

⁴ Sumner Slichter expresses the opinion that the original purpose of output limitation by incentive workers may not be make-work but that it inevitably acquires that motive if the policy is continued, *op. cit.*, p. 167.

natural or customary working pace after which it is much harder to eradicate. "The imitation of busyness raised to an art and repeated until it becomes habit grinds attitudes into men's characters which are bad for society and bad for industry."⁵ As a protective economic practice restriction may be exercised with varying degrees of severity. A policy of observing a top limit on production does not necessarily mean that all workers are "soldiering" on the job, but may indicate simply that pace setters or extremely fast workers are held in check so that the average workers can maintain normal production without over-exertion. Also, a policy of limitation is to be distinguished from a "slow-down" or a "slow-down strike." These involve restriction of production, of course, but the restriction is far more drastic and is essentially a modified work stoppage used as a bargaining weapon in a specific situation to gain an immediate end whereas a policy of restriction in connection with incentive wages is continuous and serves to keep performance at what the workers consider a reasonable level.

In a second general sense, the term restriction may be used to describe an ordinary level of individual effort and output, a customary, unpremeditated standard of performance, but one which falls short of some independently determined goal. It may reflect nothing more than the failure of an incentive plan to bring forth the additional production expected from a group of workers. A district textile union official remarked to an interviewer that he has never known a textile worker who would not say that he was being over-worked and yet he can show anybody mills where the workers spend 40% of their time idle. He emphasized that workers' notions about the rightness of their jobs become very strongly established. "If a man is led to believe that his job is to walk across a room once an hour, he will think he is overworked if he is told to walk it twice." This is a more intangible type of limitation and although it can be real enough it also can be exaggerated. Roethlisberger and Dixon, in

⁵ Henry Dennison, "What Can Employers Do About It?," *Restriction of Output Among Unorganized Workers*, *op. cit.*, p. 184.

commenting on this aspect of restriction,⁶ point out that it does not necessarily signify worker inefficiency on one hand or poor management on the other. The appearance of restriction may result from judging labor performance in terms of a logic of ideal efficiency. Workers can be more than equalling standards of production considered good in industry at large while at the same time not producing at the rate they could maintain if physiological fatigue were the only criterion. This chapter deals principally with restriction in the first of the two senses described here.

Restriction does not occur only among workers under incentive wage plans. Hourly paid employees sometimes find similar reasons for limiting output; however, in this discussion attention is directed to the practice as it relates to incentive payment. It is by no means universal practice among incentive wage workers, and the fact that in many industries and plants utilizing incentive methods wide variation occurs in earnings of individual workers operating similar equipment is proof that the faster workers are responding to the incentive with extra effort. Nevertheless, considering the fact that incentive plans are designed to stimulate individual workers to their best efficiency, it seems highly significant that in the plants it covered this inquiry found some degree of restriction, a direct negation of the incentive principle, to be so prevalent among workers under incentive wages. In a succession of different plants the evidence seemed to be that some kind of limit was being set on individual production and that optimum effort was not the natural work pattern. Restriction has always been a time-honored practice among workers who had no other protection under incentive methods,⁷ but current case studies indicate that it remains an

6 *Op. cit.*, p. 537.

7 Stanley B. Mathewson, in his study made in 1931, *op. cit.*, concluded that restriction was prevalent enough among non-union workers to constitute a major problem in American industry. He also found that fear of incentive rate cuts and unemployment were two principal reasons for restrictive practices. A majority of the management executives interviewed declared that restriction, which had been important in their plants formerly,

important tactic of workers who would seem to have recourse through regular collective bargaining. It may be noted that this conclusion seems a direct contradiction of the testimony of Cooke and Murray who assert: "What was formerly referred to as ca'canny or soldiering by individuals has ceased to be an important tactic of organized labor."⁸ The contradiction is partly a difference in meaning given terms and in the degree of restrictive quality visualized in each case, for these authors agree that many workers continue to limit output with the idea that it increases employment. They also note that incentive rates, unless properly administered by management, often lead to restricted output.

Like most other labor policies this one has its origins in a combination of ideas and purposes. In some instances limitation is used to achieve a very specific purpose, e. g., to win an important grievance case or to prove that a rate or wage increase is in order.

Case situation No. 21. At a flat glass products plant, the men in one department were charged by management with a slow-down when their performance declined to a point where they made only 15-16% bonus over base as against the previous 26-27%. The plant manager was much exercised and accused the union of fostering the slow-down in violation of the agreement, but the president of the local denied any knowledge of the matter. The grievance was an intra-plant differential between Klages machine operators and breakers that had been hanging fire for some years and the union wanted cleared up but the company would not grant. The local president said of course the union was in on the fall off

had been overcome, usually by the introduction of incentive wage plans. Mathewson's investigation of these plants did not justify this confidence; instead he was led to remark, "That payment plans, designed as incentives to increased production, should turn out to be incentives to restriction is surprising." His underlying impression was that management had given little thought to labor's role as a contributor to efficiency and that as a result workers did not feel safe in giving their best efforts.

⁸ *Op. cit.*, p. 63.

in production although he "played dumb" about it to management. The union won its demands.

Case situation No. 6. Another interesting case was cited by the president of the local at a large tire and rubber plant. The case occurred in the early days of the union organization and involved a group of over 200 girl heel trimmers. They made a complaint about the condition of the compound saying they could not make their normal B hour. The president was at that time chairman of the department involved and worked on the case for about six weeks off and on. He was able to prove the girls' contention about the compound and incidentally to catch a foreman in a bit of deception designed to discredit the union. He succeeded in getting a 10% increase in the standard. The girls then doublecrossed him by shooting their B hour performance up to 100 - 120 B's. He said they had completely fooled him by doing a uniform 70 B's for six weeks and keeping busy at it. He cited this as an example of what a well organized group of workers can do. They were the best organized bunch in the union, but not good unionists. Management restudied the whole operation and the final settlement placed an even lower B hour standard on the operation than the girls had enjoyed prior to their 10% increase.

For the most part workers look upon restriction of output as a general preventive measure, the primary motive being to avoid cuts in existing rates or lower future rates which might result if present rates and standards were "spoiled" by high levels of production and earnings.

Case situation No. 25. An experience of the workers in a men's shoe plant may be cited as a typical illustration of what may happen in this type of industry if workers are not on guard. The men in this shop could make approximately 125 pairs of shoes a day without over-exertion, and piece rates were set at this level. When small additional orders came in the employer would point out that the increased work did not justify the employment of additional workmen, but that the

regular force could do it by increasing work-effort slightly. In this way the work load was gradually increased as new orders came in. Each worker worked harder but was being paid by the piece so felt rewarded for the effort. Suddenly the employer came to the union with proof that the earnings were out of line with the workers' "day rate" or supposed average earnings for the respective crafts. If the union refused to sanction a rate cut, the employer went to arbitration and usually won his case. In the end the workers' earnings were the same as they were prior to the increase in work load.

The former head of a machine shop local said restriction within his group was so directly associated with dissatisfaction and fears resulting from incentive wages that he thought the firm would enjoy more production if it shifted to hourly rates. The ever present worker suspicion of management intentions which was referred to in the preceding chapter is itself a cause of restriction. Once acquired the conviction that management will cut any rates pushed above a preordained figure is hard to shake.

Case situation No. 26. In a radio parts plant a group of punch press operators requested a wage increase. They were on piece work and averaging 70c an hour. A management representative stated that these men had unquestionably been pegging their production and should have been able to make from 85c to \$1.00 an hour. The men were told so but they feared a rate cut if they raised their output. They had been told by a previous plant manager that they could expect a cut if they exceeded earnings of 70c an hour. The management was willing only to transfer them from piece work to an hourly rate of 73c an hour. The company is now obtaining better production from these men on day work than it did before. The union reports that the men now regret having gone on to a day work basis.

If output is not being pegged, the slightest suspicious action of management may be enough to evoke the practice from a working group.

Case situation No. 14. In the truck tire department of a tire plant management put through a rate cut on a liner operation. Of itself this change would have had an insignificant effect on the men's earnings, but they regarded it as an augury and immediately limited their production and earnings to a uniform \$9.00 per day or 10% over base rates. They had been making \$12-14 per day.

Restriction may be directed only at "speed artists" and "pace setters" in which case the limits imposed would apply to a few exceptional workers only.

Case situation No. 8. A leather plant manager reported finding a notice on a plant bulletin board, evidently put up by mistake, that workers were not to earn more than \$1.00 an hour. On the basis of average earnings in this industry this would be a limitation on the faster workers only.

But limits often are set at levels which affect the output of a substantial proportion of workers in a group. In a few instances where a Bedaux type plan or bonus arrangement is in effect the union has used the fact that after a certain point earnings fail to increase in proportion to production as an argument for limitation and has tended to set limits at such points. Another consideration which is important to workers who argue for restrictions is the idea that incentive wages tend to displace labor and that pegging is a reasonable curb on that tendency. Union leaders also consider limitation an effective means of avoiding much of the friction that is caused between individuals, groups, or shifts by differences in earning rates and distribution of work under incentive payment plans.

A local union leadership may disclaim all responsibility for or knowledge of the practice; it may admit tacit approval but no active support; in other cases it may openly admit restriction to be union policy. Whatever the official union position in a given case it is apparent that in general the spirit and discipline of union organization have facilitated exercise of the policy. Most management representatives who were interviewed

testified that their employees were limiting production to some degree and many were highly critical; however, others were neutral or sympathized with labor's motives and said that they do not object if production limits are not set too low.

Case situation No. 27. A rather amusing instance of objection to a restrictive policy coming from an unusual quarter was revealed at an automobile plant which does not have an incentive system but in which some workers observe production standards systematically. The shaft grinders in this plant are able to complete their standard output in 7 to 7½ hours whereupon they adjourn to the rest rooms for cards. The union maintains this is not a case of loose standards but the necessary pattern of this type of work. The company objects to the practice, but the most vigorous objection has come from some of the men's wives because their husbands have been losing so much money in the card games.

Case situation No. 7. The personnel director of one tire plant links the local union's restriction policy with the unusual amount of controversy over standards that has occurred in this plant. He is willing to admit that the limit set represents a good day's work. What he particularly objects to is that the workers are held to the maximum on a daily rather than on a weekly or monthly average basis which means that if a worker falls below his expected earnings one day he cannot make it up by exceeding the limit the next day. It is this rule, the personnel director claims, which makes the men so fussy about standards. The same thing shows up in connection with allowances. The company adds a liberal lump sum allowance to all standards with the understanding that no special allowances are to be granted in addition. On average this allowance is sufficient, but under special circumstances a worker may not be able to produce his regular quota; just the same he is not permitted to make it up the next day.

The point at which a limit is set or level of efficiency at which incentive wages stimulate no additional effort and the arrange-

ments under which restriction occurs vary greatly depending upon the kind of industry or the particular plant situation in which restriction is practiced. Workers or a local union may set quite definite maximum limits on earnings or production by the hour, day, or week as has been done for instance in many plants in the leather, rubber, and automobile industries. Elsewhere, an approximate average volume of output is observed as a day's work by custom and usage, as in some centers in the shoe industry. The practice may be imposed on the group by an aggressive leadership or older workers or malcontents, and in larger plants its occurrence is apt to vary from department to department and shift to shift depending upon group organization and the seriousness of grievances.

Case situation No. 28. The most thorough-going single case of restrictive practice noted during this study was divulged by an organizer concerning his own experience as a worker in a mattress factory. In 1931 he was working in a department of about 150 men making inner springs; the department was on piece work and the men averaged about 49c an hour, good pay for that time. The boss announced a 25% cut in rates, at the same time giving a pep talk about how the men by taking this cut and increasing their individual production could increase the business of the firm and consequently their own earnings. Not being organized the men could not fight the cut, but at the lunch hour they talked the matter over and decided that if their pay was cut they would reduce their production. They had been doing 36 springs in a 12 hour day or 3 per hour; they cut this to 32 a day. They maintained the limit by a kitty system; each man was allowed to go 1c an hour over the limit—anything made over that went into the kitty. Every month or six weeks the department held a celebration out of the proceeds of the kitty. As the union organized, this department was able to gain successive wage increases without increasing its output. The organizer stated that when he left the plant for his present job the men in this department were turning out 2 pieces an hour in an 8 hour day and were making over 70c. The present limit is set at

74¢ an hour and the kitty system is still maintained. As he put it, this group reduced production 33% and increased wages 50%. He attributed this achievement solely to the discipline and esprit de corps of the men in this department and to the fact that the policy was instituted early. Other departments were not as well organized or began too late to get the same results. This union representative concludes from this experience that restriction works to the interest of workers, contrary to the opposite contentions of employers, and that the policy is effective in saving jobs.

Restriction tends to occur in industries where production is on an individualized basis and the skill and speed of each worker are important determinants of his output. In such industries restriction may be detected by observant management when the output and earnings of an individual or group of workers remain at a stable level and noticeably uniform over the course of a day or several days.

Case situation No. 6. This case was described by the personnel director at a large tire and rubber plant to illustrate the difficulty he was having in settling one standards dispute. Operator A had been on this job for some weeks; B had been on it only two days after returning to work from a long illness. Operator A was under the impression that an additional allowance of about 12 B's was coming to him, while B knew nothing about it. The work curve of B is typical for a day's performance; that of A is not.

<i>Working Time</i>	<i>Operator A</i>	<i>Operator B</i>
1st hr.	11 tires	8 tires
2nd hr.	11 tires	14 tires
3rd hr.	8 tires	16 tires
4th hr.	11 tires	15 tires
5th hr.	10 tires	14 tires
6th hr.	11 tires	6 tires
	—	—
	62 = 72 B's per hr.	73 = 85 B's per hr.*

*On this job each tire has a value of approximately 7 B units. Each operator's B hour performance is computed by multiplying the total number of tires by 7 and dividing by 6.

The clothing trades are an outstanding exception to the tendency of restriction to occur where the capacity of each worker largely governs his output, for garment workers seem to have made very little systematic use of restrictive practices. In certain industries the character of the production process makes individual limitation of output difficult; this is true, for instance, of group operations on a conveyor system where the flow of work is mechanically controlled. In such cases the union must either submit its ideas as to appropriate speed or manpower to negotiation or resort to deliberate and obvious slow-down.

A fairly common practice among workers which is related to restriction but which may occur without continuous production limitation is the custom of maintaining a backlog of completed work that is not turned in. This practice, sometimes called "making hay," is found in industries as divergent as shoes and automotive parts. It is another protective device designed to provide the individual worker with a reserve of several hours of finished work, accumulated during a stretch of easy or rush work, with which he can tide over a slack period.

Case situation No. 29. One automotive equipment manufacturer discovered this practice among his workers quite unintentionally when he closed down his plant for inventory and found a considerable amount of finished production which did not show on his records.

The despair of good unionists and the object of considerable bitterness in situations where incentive rates have caused much trouble is the exceptionally fast worker who is also an individualist and insists upon setting his own pace. He is the one who shows up the rest of the workers and who endangers existing incentive rates in so doing. It is he who may make a restrictive policy necessary and he is likely to create difficulties by resisting that policy. Various means of enforcing a policy of restriction are used whether the policy is backed by the union or is being observed informally by a group of workers. Generally, the fear of group disfavor is a sufficient deterrent,

especially when the policy and the need for it are discussed at union meetings and violators are subject to reprimand before the body. Social disfavor, if conformity to certain standards of output is a matter of genuine sentiment, can be a very powerful force. Workers who push their output above accepted levels are referred to without further question as stooges, or as persons who are trying to gain favor with the bosses, or who are intimidated by them. In many instances groups of workers have found it effective simply to refuse to work with an individual whom they charged with "spoiling the job." Discrimination in the distribution of hard and easy work is another of the ways in which a group can bring pressure to bear on one of its members.

Case situation No. 30. Three girl workers in a glass plant who had had to pay about \$40 in back dues when the closed shop came in were resentful and thought to embarrass the union by producing well over the limit observed in the plant. A union official was able to secure the cooperation of the foreman in handling this case in the interests of maintaining unity of action and discipline within the union. The foreman began feeding the most difficult work to these three girls until they came into line.

In some cases the union imposes penalties for serious infractions, in the form of a brief suspension from work or a money fine. An interesting arrangement is the "kitty" system encountered in a few cases. A limit on production or earnings by the hour or by the day is agreed upon and workers forfeit any amount earned over the limit into a common fund or kitty. This fund is expended periodically for a group function or celebration. That less formal and more direct methods of enforcement are sometimes used is indicated by the statement of a committeeman at one plant that if a worker persisted in exceeding the limit established some of the boys would "take him out in the alley and beat hell out of him."

One of the problems in enforcing restriction is keeping a check on violations. To get the requisite information unions frequently ask employers to post individual employee production records, or seek access to payroll records, or insist that workers turn their own payslips in to the union office. Where restriction is openly union policy the union often seeks management cooperation in enforcement. The prevailing management attitude, when it is not outright opposition, is that enforcement is strictly a union matter. Nevertheless, unions often report that foremen and lower supervision will lend them a hand on occasion to keep a fast worker in line in the interest of harmonious relations. In several cases covered by this study in the auto and rubber industries management has recognized definite limits to incentive earnings by agreement or at least has set up procedure by which limits can be enforced. The closed shop offers a final means of enforcement through management authority which some unions would welcome in this connection.

Case situation No. 31. An illuminating example of restriction in practice is furnished by a large auto parts plant in a mid-western city where the wage method is an adaptation of the Bedaux plan. Production limitation, called "B hour control," has been a troublesome policy question before the local for some time. There seems to be general membership agreement on the desirability of control; the questions and differences are over the limits to be set and the mode of enforcement. Performance at the rate of 125 B's per hour is considered by the workers to give a fair day's work at this plant. After some preliminary modifications of policy, maximum production per worker was set at 5000 B's per week; this is an average of 125 B's per hour but permits workers falling behind for special reasons during the week to speed up to make the weekly limit. A definite fine on violations was voted at one special meeting devoted to the question, but it was withdrawn at the next. The issue of enforcement was then referred to the national office of the union.

Thus far in the discussion restriction has been treated as a logical form of behavior motivated wholly by the economic and organizational reasons which workers and union officials give and which have been repeated here. In the main, such a treatment is adequate but it needs to be supplemented by reference to the nonrational factors involved. On this score the material of the Hawthorne studies⁹ is most helpful for the insight provided by detailed observation and recording of the day-to-day work habits of groups of workers in the shop. The investigators found restriction of output to be very definitely a social practice as well as an economic one. Associated with it was a very specific concept of a "day's work" which was not at all in keeping with the incentive plan in force but which apparently was not based either on any clearly worked out calculation of proper work load. This concept and the related control of production were surrounded by such a cluster of beliefs about the work, anticipations of the future, and interpersonal relationships it was obvious that they constituted a group standard of conduct. A variety of small devices was used within the group to maintain uniformity of output. It was noted that the workers were "enormously preoccupied with quantity of output" and always knew where their daily production was in relation to the standard they set for themselves. This showing by the Hawthorne studies that restriction of output by workers, whatever its economic origins, takes on the character of habits within the social system of the shop checks with the evidence of the cases studied in the present inquiry. In a number of bargaining situations which were examined the restrictive policy appeared to be an expression also of sheer ill-will or resentment felt by the workers towards management although the resentment in turn was fed by a combination of other differences and grievances.

Case situation No. 32. In the plant of one prominent auto parts manufacturer production standards and the question of worker efficiency have caused much mutual bitterness

⁹ Roethlisberger and Dixon, *op. cit.*, p. 412 ff.

almost since the plant abandoned piece work in 1935. According to the management, production standards were maintained for the next year and it was when the union organized that productivity declined. In order to encourage the workers to greater effort the company instituted a premium plan which pays workers a slight bonus when their departments produce at better than 96% efficiency. At the time of the visit to this plant only one department was earning any premium and others were substantially below the company's standard figures. Management representatives blamed this poor showing principally upon politics and radicalism within the union; it was also attributed to the racketeering motive—the men were taking advantage of the fact that they could make more out of overtime than from the premium.

There is another point to be made about restriction which is seldom sufficiently stressed. It is that restriction of output is not solely or peculiarly a labor phenomenon; in fact, labor has merely emulated one of the most fundamental principles of business enterprise. Veblen called attention to this principle and described the profitability to the individual enterpriser of withholding efficiency and production in a capitalist economy.¹⁰ Workers do not deal in terms of such conceptual parallels and have not been able to make this point in their own defense. But they are familiar with the actualities and consequences of manufacturers' decisions to limit or halt production in order to protect the prices of their products. The type of thinking which is responsible for the production and price policies of American industry naturally carries over into the policies of a large body of industrial workers.

The importance of the considerations voiced in the two preceding paragraphs is that they suggest the persistent quality of restriction as a labor policy. So long as it remains a group social practice and so long as workers are imbued with the demand and supply pricing ideas of private enterprise, restric-

¹⁰ Thorstein Veblen, *The Engineers and the Price System* (B. W. Huebsch, Inc., 1921), pp. 8, 9 ff.

tion will not be eradicated by wage guarantees and other employer economic inducements. Mathewson made the point in his 1931 study that up to that time the pace of technological development in American industry had been so great and so satisfactory that it had obscured the problem of restriction or at least had enabled management to overlook it.¹¹ What the rate of technological progress in the future will be it is useless to predict but that the pressure on industry to afford wage earners a rising standard of living will be greater than ever before in our history can hardly be questioned. Social legislation and a large and powerful labor movement will insure that. Neither management nor organized labor can afford to be complacent about restriction as a continuing mode of conventional worker behavior or about the causes of that behavior.

This naturally raises the question as to whether the war period with its heightened tempo of work and its emphasis on all-out production as a patriotic duty provides the galvanic forces necessary to disrupt the habits and change the ways of thinking which have sustained restriction in the past.

Something should be said at this point regarding the response of labor to the call for record output and for the elimination of all restrictions on maximum individual effort. Reference should be made also to certain government activities which are designed to stimulate production or which bear directly on this problem. It would require an intensive first-hand survey to obtain an accurate picture of the impact of full war status on work habits in American factories. However, some of the factors that must be taken into consideration can at least be suggested.

To begin with, it may be assumed that in the labor force of the war industries there is an enormous reservoir of latent productive power. In general it exists in two forms. One is as a margin of unused physical and mental energy; another is as a great wealth of ideas, suggestions, and intimate knowledge of jobs, materials, and processes. The problem is how to com-

¹¹ *Op. cit.*, pp. 154-155.

mand this unused productive power and put it to work. There is no way of estimating the additional production that might be realized. Donald Nelson has asked for a 25% increase of output on existing equipment but this would include an increase due to more continuous use of equipment. Charles Slocombe, editor of *Personnel Journal*, states that restriction by workers is generally considered to amount to 25%, although on what evidence he does not indicate.¹² The United Electrical, Radio and Machine Workers Union, as already noted, proposed to achieve a 15% increase; a production increase of this magnitude would be an amazing accomplishment when it is considered that much of it would take place in large corporations reputed to be leading examples of modern industrial efficiency. No definite figure can be more than a guess, but the scale of these guesses is an indication of what is at stake for workers. They are being asked to forego all restrictive practices which hold output below what might be considered a reasonable level in ordinary times and in addition to exert an extra effort. In effect, that is, workers are being asked to forget for an indefinite period their concepts of a fair day's work and to engage in what is tantamount to a mass speed-up. From the point of view of earnings one would think that hourly paid workers would show the least enthusiasm for this program, for their wages will not increase with production as in the case of incentive wage workers. At the same time it is the workers who are paid incentive wages that should be most alive, on the basis of their past experience, to the hazards of wholesale departure from existing work standards.

Case situation No. 3. In an airplane and automotive parts plant where large army contracts had increased the volume and regularity of work, a group of men on one operation were able to jump their earnings on the old rates to \$1.30-\$1.40 an hour. The Personnel Manager claimed the jobs were not worth more than \$1.05 or so. But the company abided

¹² *Personnel Journal*, XX (1942), 257.

by its promise not to cut rates. However, the men became apprehensive and began to slow down their rate of production somewhat. The company needed production badly and told the men to shoot for the moon and they would not be cut. But management announced at the same time that when new jobs were introduced the rates would be brought within reason. When a new rate did go in and the men made only around \$1.12 they raised loud complaints. Some union representatives questioned on the incident replied "It is the workers' own fault for being suckers and falling for management's bait."

The most concrete evidence of what labor fears is to be found in the conditions with which the United Electrical, Radio and Machine Workers hedged its production increase offer.¹³ The importance of the proposition made by this Union and of its consequences, if it should be accepted by the companies concerned, justifies quotation and brief discussion of the conditions which the Union demanded.

In the first place, the entire proposal was predicated upon agreement between each company entering into the plan and the union "that the rate of production output per man-hour as it existed prior to Pearl Harbor shall be deemed the Normal Output." In addition each company must agree to the following conditions:

- (3) The Company will discontinue for the duration of the war any downward changes of job values, piece prices, and existing rates.

Such a blanket provision would insure that workers would be paid for all increased output and would be almost the only way of forestalling endless controversy over loose rates and inevitable employer attempts to keep earnings adjusted to preconceived notions of job values. In the statement with which the national officers of the Union accompanied the proposal they said: "At present extra production has the effect of raising

¹³ As advertised in the *New York Times*, March 25, 1942.

the 'normal' against which incentive is figured. Thus an employee may hesitate to increase his output on the basis that so doing will lift the normal and thus decrease his compensation. . . In the opinion of well-informed union officials, such a guarantee against lowering the rates will do more to increase production than any other single step." A reasonable employer objection to an absolute ban on rate changes, however, would be that it prevents adjustments for technical improvements which are bound to be made during the war period quite apart from worker contributions.

- (b) Day workers will be paid an increase in their hourly earnings as a result of this increased effort equal to the percentage received by incentive workers.

This is primarily to avoid discriminating against hourly workers and to keep harmony within the labor force, but it would also have the useful purpose of making it impossible for employers to use the unchanged hourly earnings as argument in rescaling incentive rates.

- (c) Prices and job values on new jobs shall continue to be determined on the basis of normal effort.
- (d) The Normal Production records of employees as they existed during the quarter prior to Pearl Harbor shall be available to the Union for the record.

It is an obvious and essential corollary to condition (a) that all new rates be set according to pre-war standards, otherwise workers would have no real protection against rate cutting. The difficulty in practice would be that many of the new jobs coming up for rate setting will bear little similarity to peace time operations and will be difficult to compare with them. As the so-called "normal" production standards become more and more fictitious in terms of the going levels of performance, it would become increasingly hard to apply the old standards to the new jobs.

- (e) After the War, the Company shall make no effort to cut prices or job values by reason of this super-normal war effort by our people.

If the program is to be undertaken in good faith employers will recognize the justice of this provision. Yet it must be admitted in looking ahead that the interpretation of this provision would certainly be a fruitful source of conflict. If after the war the standard of individual efficiency returns to a level approximating the pre-war normal — and the expectation that such a turning back could take place is one of the more questionable assumptions underlying the whole plan — even the most fair minded employer will have difficulty forgetting or leaving out of account the productivity of which his employees were once capable, and he will have even greater difficulty persuading his management and lower supervision to disregard such considerations in setting up job standards. Moreover, the employer who agrees to this condition faces the prospect that the union will try to use it to ward off changes in job values and rates that may be quite justified by job changes or technical improvements. The final clause of the proposal is self-explanatory:

- (f) Provisions of the existing agreement between Company and the Union which govern time studies and adjustment of rates shall apply after the war.

That a labor organization embarking on as momentous an undertaking as a 15% increase in production solely through an intensification of worker effort should require such exacting conditions from employers is understandable. Even so one might question whether the union leadership has weighed or is fully cognizant of the possible consequences of such a program. Nor could one condemn the industrialists concerned for hesitating to accept the union offer.¹⁴ The final consequences

¹⁴In the light of the union's offer attention may be drawn to two provisions of the national agreement signed between this union and the Westinghouse Electric and Manufacturing Co., dated April 8, 1943. One provision guarantees recorded time values for the duration of the war with

for them cannot be predicted and they might be very costly. Such a program is hardly one to be attempted in a single industry alone; the probable discrepancy between the level of earnings in this and other industries that would result and the differences that might arise between hourly paid and incentive workers and between organized and unorganized workers are some of the problems that employers would have to contemplate. The central concept of normal output would be a sure source of disagreement. A standard of normal as applied to individual worker output is not a static quantity or measure as the plan seems to assume, particularly not over a war period. New machines and techniques will continue to develop; the process of job dilution will be pushed to the utmost. It is safe to predict that there are a great many jobs in the major manufacturing industries whose pre-war specifications will change during the war and that there are few operations that will bear the same relation to the finished product as before. By the same token the concept of normal output will have undergone a change. The quality of physical effort, the relative proportions of physical effort and rest, and the purely quantitative output combining to make up the standard of a fair day's work are subject to constant change.

These in brief outline are some of the implications of a substantial acceleration of worker productivity for emergency purposes and the safeguards which a particular union group feels it must have before incurring the risks involved. In general, it may be supposed that all workers who are covered by incentive payment plans or who work according to strict production standards will have similar forebodings. It is not surprising, therefore, that provisions growing out of war production conditions have appeared increasingly in union agreements. The

carefully guarded exceptions. This provision is quoted on page 128 of the text following. The other provision referred to provides a bonus plan for day workers geared to average incentive efficiency in each plant but limited to a 30% earnings increase. The National War Labor Board approved this plan with only slight modification on January 14, 1944.

following clauses from the agreements of companies engaged in war work may be cited as examples:

The management agrees with the Bargaining Committee to extend the time of the guaranteed piece work and group bonus prices until the end of the present National Emergency.

Prices on new work will be set in accordance with piece work prices established before April 1, 1941. (United Automobile Workers—Bantam Bearings Corporation)

Recorded time values for hourly rated employees will not be cut for the duration of the war except under the following conditions:

- (1) When a clerical error has been made in the determination of time value.
- (2) When a change has been made which affects the time value of any portion of the job, and in that case there may be a change in time value only in that portion of the job. The new time value set shall be on the basis that the operator, with previous normal effort, shall be able to earn his previous earned rate. (UERMWA—Westinghouse)¹⁵

The governmental officials in charge of the production drive have been aware of these fears and have sought to allay them. Thus in his radio address on March 2, 1942,¹⁶ Donald Nelson assured workers that the production drive "is no sly scheme to speed up men and machines for profit's sake." He struck at another traditional fear when he said, "let no man fear that by putting more steam into his effort he'll soon run out of work." At the same time, Nelson's speeches contained the carefully expressed intimation that at least some within the labor group have been used to working under wraps and that these habits must be changed. Witness his statement, "Our enemy

¹⁵ The Appendix contains a fuller identification of the union agreements quoted in these pages.

¹⁶ Reported in the *New York Times*, March 3, 1942.

has suspended all the rules. We can't fight by the book. For that reason nothing can be allowed to delay production."

As the scale of the effort continued to mount and the labor supply problem intensified, the various governmental agencies most directly concerned with war production exhibited an increasingly explicit enthusiasm for the potentialities in incentive methods.¹⁷ This occurred despite President Roosevelt's earlier declaration at a press conference in April, 1942, that he was strongly opposed to the piece work system in time of peace and to its extension in time of war. He said that he believed workers would produce to the limit of their capacities in the war emergency without bonuses.¹⁸

The introduction and progressive effect of wartime anti-inflation wage controls were a notable new element in the situation so far as incentive methods and both government and union policies were concerned. Briefly, incentive methods looked less objectionable to unions as they became the last remaining means of increasing earnings despite wage control. Workers gave signs of recognizing this even before the real pinch of control began to be felt. For example, in the *U. E. News* of April 25, 1942, a story from a St. Louis local reporting recent negotiations contained this statement: "In joining with the union to push war production the Wagner Company agreed to a fixed piece-work incentive rate for the duration of the war, and the workers, most of whom work on incentive rates, accordingly will enjoy a steady rise in wages as production increases." It was similar considerations, as indicated by the wording of the following agreement clause, which prompted another local union to agree to an incentive wage plan:

• 17 The joint management-labor council of the War Production Board appointed a special sub-committee on incentives in April, 1943. This committee studied the problem of selecting an incentive plan to be applied in the aircraft industry. It reported back to the joint council but no plan was announced. The September 1943 issue of *Fortune* reported that a Wage Incentive Victory Plan was worked out but was rejected by labor because industry refused to go along with guarantees which it requested.

18 See the *New York Times*, April 8, 1942.

The Union recognizes that the Company is in a highly competitive field and that adjustments beyond a certain point will work against the ability of the Company to obtain business. Therefore in a sincere effort on the part of both the Company and the Union to find a workable arrangement that will produce an increase in wages to the employees, the parties hereto have agreed upon a wage incentive plan which recognizes the fact that increases in wages shall be paid from increases in production. (United Automobile Workers—Wolverine Tube Co.)

Another indication of the shift in labor sentiment appeared in the June, 1942 issue of *Labor Notes* issued by the Labor Research Association. In a discussion of means of accelerating war production, this organization recommended the adoption in suitable cases of properly safeguarded incentive wage methods. "This type of wage or bonus system has nothing in common with the old speed-up stretch-out system of former non-union days." It is worth noting as an additional sign of the times that as a recommendation of payment by results the Association compared it favorably with the Stakhanovite system in the Soviet Union.

The nation-wide program of wage stabilization which was inaugurated by legislation in October, 1942, but which was foreshadowed in earlier decisions of the National War Labor Board in disputes between employers and workers over wages, therefore, gave new impetus to the widening interest in wage incentive methods which began with the earlier war production drive. It has drawn the agencies of government into the picture in unprecedented fashion and has compelled many unions to reshape their previous thinking and to find ways of meeting new problems. As the Federal agency charged both with the wage stabilization function and the settlement of labor disputes, the National War Labor Board has been exposed to most of the aspects of the incentive problem touched on in this study. A summary discussion of some of the Board's problems and some of the policies it has developed in relation to incentives

should help to round out the treatment of incentive wage methods under the impact of the war.

In the course of its regular operation, the War Labor Board is called upon to deal with incentive wage plans in two ways. On one hand the several Regional War Labor Boards have been presented with an increasing number of requests to approve a variety of incentive plans which employers or employers and unions jointly wish to introduce in plants or parts of plants which previously have been on hourly rates. On the other hand, the Boards must pass on various kinds of wage adjustments or controversies involving plants which have established incentive plans. In deciding cases of the first type the Boards are concerned primarily with the numerous problems which incentive payment raises for wage control. Cases of the second type raise the wage control issue also, but they involve the Boards as well in all manner of labor-relations questions connected with incentive methods. The problem of first magnitude, as seen from the point of view of wage control, has been the series of questions associated with the introduction of incentive methods into plants and industries where they have not been used previously. In all, the War Labor Board received over 800 applications relating to the introduction of incentive plans during the short period between April 8 and September 30, 1943.

The War Labor Board, rather obviously, did not welcome the necessity of becoming involved in one more area of controversy and was slow in developing systematic policies for dealing with incentive problems. For one thing, an unequivocal declaration that new incentive plans required War Labor Board approval was not issued and resulted in some confusion within industrial management and in instances of incentive installations which had unstabilizing effects. It preferred to feel its way on a case by case method, letting the Regional Boards make their own decisions, but canvassing them for their experience and recommendations. Considering the tri-partite character of the Board and the controversial possibilities in incentive meth-

ods, both economically and politically, no other course could have been expected. However, the pressure of developments became too insistent and it was imperative that some central enunciation of policy on limited aspects of the problem be made. Chairman William H. Davis was empowered to set up a committee to consider the whole problem and the staff of the National Board was assigned the task of submitting findings and recommendations.

On October 2, 1943 the National Board released two unanimous resolutions on incentive wage plans and the decision and opinions of the Board in the Grumman Aircraft case.¹⁹ These constituted the first formal intimations by the National Board to industry and labor, and to the Regional Boards as well, of the policy it intended to follow in dealing with new incentive proposals. In the two resolutions referred to, the Board laid down a few general rules. In the first place, the Board will consider only voluntary proposals by employers or jointly by employers and unions where a recognized bargaining representative exists in a plant. In keeping with this policy the Board will not order the adoption of incentive plans in dispute cases. In the second place, the Board served notice that in its decisions on incentive proposals it would confine itself to the general question of approvability under wage stabilization policy. Questions of technical details and suitability from a management viewpoint thus remain responsibilities of the applicants. Thirdly, the Board announced that it would require periodic review of any incentive plan it approved as a further precaution against violation of stabilization principles.

These rules both clarified the Board's policy and simplified its task. They made clear its determination to remain free, so far as possible, of the controversy over incentive methods between unions and industrial management. By refusing to take responsibility for the technical aspects of incentive proposals the Board also saved itself and its staff what promised

¹⁹ Grumman Aircraft Engineering Corporation, Bethpage, Long Island (Case No. 13-285), September, 1943.

to become an impossible burden of work. Previous to this decision several of the Regional Wage Stabilization Divisions were finding it an increasing problem to give any critical analysis of the administrative and technical aspects of even the best incentive plan proposals being received. At the same time, they found many employers who looked hopefully on wage incentives as a remedy for their labor supply problems and who expected the Board staff to furnish a virtual management consultant and engineering service selecting and adapting wage methods and advising managements on their installation.²⁰ It is not to be thought, however, that in restricting its jurisdiction to stabilization questions in connection with new incentive plans the War Labor Board relieved itself completely of any need to scrutinize the feasibility and the technical features of these plans in specific cases. These matters cannot be divorced wholly from the net effect of a plan on production costs and earnings.

The opinion written by George W. Taylor, Vice-Chairman of the National Board, for the public in the Grumman Aircraft Case together with the concurring opinion of the labor members was the fullest statement of principles covering the incentive question yet to be issued by the Board and was eagerly studied in its own Regional offices and by other interested parties. In these opinions, the Board showed itself to be interested primarily in the general wage effect of new incentive plans and the main opinion was written with the avowed purpose of emphasizing the difficulties which surround the utilization of incentive methods. In general, Mr. Taylor's opinion seemed to reflect what may be termed a guarded majority sentiment in favor of incentive plans under suitable circumstances. This is despite the labor members' insistence that the unanimous vote in the Grumman case did not betoken a declar-

²⁰ As an interesting sidelight it may be mentioned that in order to meet this situation in a few Regional offices relationships were being worked out between Wage Stabilization Divisions of the Boards and local War Production Board offices whereby representatives of the latter agency served the Board as advisers on technical features of the incentive problems.

ation of Board policy on incentive wage plans. It is well to note, however, that the Board framed its approval clearly within the conditions and peculiar urgencies of the war period and can be taken as a policy declaration only with that important qualification.

Mr. Taylor listed seven rules for the guidance of the Board in its approach to new incentive plans. Besides reiterating the conditions set forth in the two Board resolutions on this subject discussed above, they relate entirely to enforcement of stabilization policies in connection with incentives. It was the labor members whose opinion dealt with the particular fears and concerns of labor which must be provided for when new incentive plans are considered. They listed nine requirements they considered essential to the approvability of an incentive proposal. These requirements stress the necessity not only of having union approval of a plan but of labor-management cooperation in developing it and of allowing free play to collective bargaining in connection with changes in rates and standards under a plan. Other points mentioned are the need for a guarantee of full employment under an incentive plan and the inclusion of non-productive workers under any plant-wide incentive proposal.

Actually, there was little that could be called new in the precautionary rules enumerated either by Mr. Taylor or by the labor members so far as the practice of the Regional Boards on incentive applications was concerned. Certain of the Boards have adopted and issued their own sets of rules or principles for the guidance of parties wishing to install new incentive plans or desiring information on the operation of plans under wage stabilization. It is only natural, also, that there should have been some differences in the policies followed by individual Boards. In addition to exercising vigilance over the costs and earnings aspects of such plans the Boards have shown a real interest in suitable safeguards for the individual worker who is to be placed upon an incentive basis. Many of the Boards have realized that these safeguards must consist not only of

specific guarantees attached to the plan itself but of recognized bargaining privileges for the union.

The above discussion has dealt primarily with the War Labor Board's approach on the general question of new incentive plans. The Boards have had to deal with many of the same problems in connection with voluntary applications requesting changes in existing plans and in settling disputes in which one or more features of existing plans have been issues. On the whole, so far as can be judged from scattered decisions, the Board has followed the general policy which is reflected in the opinions in the Grumman case. In dispute situations, of course, the Board has had to face much more sharply specific grievances of workers against incentive methods and the necessity of making decisions with respect to a variety of modifications, safeguards, and participation privileges which unions demand. However, the National Board has not issued a clear-cut statement setting forth in definite fashion the powers and duties of labor and management, respectively, under incentive wage plans.

The large volume of new incentive plan proposals which have been taken to the War Labor Board are an interesting commentary on union policy in wartime. For the fact is that in a significant number of cases local unions joined with employers in asking the War Labor Board to approve the introduction of incentive schemes into plants or departments of plants previously on hourly rates. This development can be attributed almost entirely to the wage stabilization program itself. The great bulk of organized industrial workers had received by early in 1943 all the general wage rate increases permitted under the War Labor Board's Little Steel Formula. But the cost of living continued to rise above the 15 per cent rise since January 1, 1941 which was the basis of the Board's Formula. The worker was kept well informed of the progress of the cost-of-living index by his union, but he needed little coaching, for his own experiences as a consumer usually led him to the belief that prices in his own community must be far ahead of

the government indices. When, in spite of the rising index and increasing labor complaint against the Little Steel Formula, the President issued his "Hold the Line" order in the Spring of 1943 and the National War Labor Board and Economic Stabilization Director gave evidence that they intended to hold the line, the proponents of incentive wage methods within the labor movement were able to make an increasingly persuasive argument that some form of incentive system was the only way in which workers could increase their earnings.

The incentive issue received considerable play in the labor press and at union conventions as a natural consequence of the upswing in the general interest and the search for ways to increase earnings. Also the differences in viewpoint between unions and within unions were more sharply drawn as the issue arose in the form of immediate policy questions. There were instances, for example, of local unions which joined with employers in asking approval of incentive plans against the bitter opposition of their own international organizations. To what extent the differences reflected differences on basic principle and to what extent they represented different war-time political programs within unions would be difficult to discover. The American Federation of Labor placed itself on record as opposed to widespread introduction of incentive systems. The United Rubber Workers, which for several years had adopted unanimous resolutions denouncing incentive wage plans, failed to uphold such a declaration at its 1943 convention. The United Electrical, Radio, and Machine Workers came out in favor of incentive plans when properly applied and safeguarded and fully subject to collective bargaining.

The incentive question played its most prominent part in union affairs in connection with the 1943 convention of the United Automobile Workers-CIO. It appeared that the question had become one of the larger issues between the two principal factions contending for control of the organization. The whole matter was given additional prominence by the publicity attendant upon the demand of General Motors Corpora-

tion, in negotiations for a new national contract with the UAW-CIO in the Fall of 1943, that the union withdraw its opposition and give its support to incentive methods of pay in Corporation plants where such methods would be appropriate. The vote at the convention of the International Union in October, 1943, was a clear victory for the policy of opposition to incentives supported by the element in the organization headed by Walter Reuther. Earlier in the same year the leadership of this union had reason to show increasing concern over its lack of an official policy on incentive systems and over the tendency of a significant number of its local unions to vote for the adoption of incentive plans. A special committee was created to report to the Executive Board which considered the problem and adopted the policy that was communicated to all locals of the UAW-CIO on April 1, 1943 by Secretary-Treasurer Addes. This policy consisted of a declaration of opposition to the adoption of all incentive plans and a statement of "Minimum Requirements for Approved Wage Incentive Plans." The latter statement did not forbid local union action in acceptance of incentive payment systems but required prior approval by local membership and by the International Union. The April 1st communication from Mr. Addes just referred to took some pains to deny press statements that the Union's position on incentive pay was a subject of factional differences in the union. Nevertheless, prior to the convention, a number of applications for approval of new incentive plans had been sent to the War Labor Board bearing the signature of UAW-CIO locals, whereas the resolution adopted at the convention was definite and unequivocal. It prohibited any local union from joining in an agreement with an employer providing for the introduction of an incentive system. Naturally, it was questioned in some quarters whether this convention determination could prevent local unions from taking what some obviously regarded as the only course to additional earnings in the face of wage stabilization. In fact, applications involving incen-

tive proposals were received by the War Labor Board after the convention which had UAW-CIO locals as signatories.

An article in *Fortune* for September, 1943,²¹ publicized the experience of one local union of auto workers which appeared satisfied with its decision to try an incentive plan. This plan was introduced experimentally in the plant of the Murray Corporation at Ecorse, Michigan as the result of cooperation and mutual agreement between management and the local union to provide a way to increase earnings within the stabilization program. It is significant, however, that the union insisted upon an earnings ceiling under the plan of 25 per cent over standards. According to the *Fortune* report, workers who participated directly under the plan averaged a 19 per cent increase in earnings. Thus, it is not surprising that the new agreement signed between the Corporation and the Union in June, 1943, provided for the continuation of the incentive plan.

The experience of the War Labor Board with wage incentive plans in general tends to reinforce the conclusions which may be drawn from the present study with regard to the use of incentive methods as a broad, emergency-period instrument for stepping up production. In the first place, there is no question that a good incentive plan, soundly operated, can stimulate production. Secondly, however, an incentive plan installation in itself is no guarantee of increased output and can have the opposite effect by causing workers to intensify restrictive tendencies or by arousing enmity and ill-feeling. Thirdly, for the reason just cited, employers and the responsible agencies of government would be well advised to precede specific incentive proposals by careful investigation of each plant situation. Most companies engaged on war contracts already make or have made at some time considerable use of incentive forms of payment. Among those which do not use incentives there are some whose production problems and methods are not well suited to incentive methods and others that could not expect to benefit

21 "More Pay = More Production", *Fortune*, vol. XXVIII, No. 3.

from such methods because of recent unfavorable experience or because good management is already achieving close to optimum production. Fourthly, the introduction of incentive methods should have the sanction of the local union wherever organization exists. Furthermore, the union should be encouraged to participate to the fullest extent in establishing the new wage system and in the determination of rates and standards. If direct sharing in rate setting is either not practicable or not desired by the union, it should be granted full rights in taking up by negotiation any worker objections and dissatisfactions. Such union participation should embrace a well defined procedure for making adjustments in rates or standards when changes in products, equipment, organization, etc., make them necessary. It is especially important, when incentive methods are employed so obviously to speed up workers, that they should be fully informed and should be actively cooperating in the program and that the union should possess such real controls over the situation that the workers can produce in record volume with full confidence in their security.

One aspect of the government program for increased production which is due for criticism is the role which has been allotted to the unions. There has been no convincing evidence that the war production authorities have been committed to a clear-cut policy on the question of union participation in the production drive. Rather it would seem that the government objective of obtaining a release of labor's reserve margin of productive power is somewhat at odds, so far as it means real labor participation, with the official desire not to alienate employers or to further labor control in industry. A well publicized early feature of the production drive was the holding of promotional conferences between labor and management groups in key cities and the formation of labor-management production committees in individual companies and plants. Mr. Nelson's speeches, government spokesmen at the pre-

liminary conferences, and the Official Plan Book²² of the drive all emphasized that increasing war production was to be a joint effort and the Plan Book outlined various courses of action to be administered jointly by the local committees and designed to give labor a sense of participation. However, the sense of participation is not created alone by skillful publicity or by joint committees. If making suggestions for cutting scrap waste and for improving the operations of machines are proper contributions from workers and their representatives it is difficult to explain to them why they should have nothing to say about larger questions of management policy, conversion of industry, or expanding production through pooling of resources and equipment. The production drive did not live up to its possibilities in the crucial matter of participation. The fact that an outstanding public relations man was put in charge of the program at an early stage emphasized the resemblance of the drive to a typical high-pressure advertising campaign. War Production Board representatives hastened to quiet the misgivings expressed by prominent industrial leaders that cooperation would admit labor into management. They pointed out that the program was purely a production drive and was not a means of extending labor's control. The magazine *Business Week* stated that the intent of the War Production Board in sponsoring labor-management committees was "1) to sell the scheme to labor, avoiding the stretch-out label, and 2) divert the unions from their demand for a bigger voice in the management of industry to what Nelson considers their proper role—stimulation of the industrial worker to greater efforts."²³ It is indicative of the extent to which the production drive organization was set up in the local plants without a solid foundation in union-management relations that such a large proportion of the labor-management committees were established in plants which had no recognized bargaining agent.

²² "Official Plan Book," issued by Production Drive Headquarters, War Production Board, Wash., D. C., Feb. 28, 1942.

²³ *Business Week*, No. 654, March 14, 1942, p. 5.

The changes which have characterized the organization and composition of the Labor Division and the War Production Drive Headquarters in the War Production Board in Washington are illustrative of the indecision and compromise which have marked public policy with respect to genuine labor representation. The War Production Drive Headquarters was first established under the direction of a man with a public relations background and it was not made responsible to the Labor Production Division. Early in 1943 a move towards greater representation was made when the Production Drive was placed under the direction of a Policy Committee of five. The Chairman and two others were drawn from industry and the remaining two were representatives of the CIO and AFL, respectively. However, the Committee remained virtually inactive throughout its existence. The third change occurred in June, 1943, when two labor Vice-Chairmen were appointed to the WPB, one to head up manpower activities and the other the Office of Labor Production, successor to the Labor Production Division. The Policy Committee was abolished and the War Production Drive Division was placed under a Director General who was again a public relations man. Significantly enough, the War Production Drive Division was still given independent status in the WPB rather than being made responsible to the Office of Labor Production. However, a labor-management council was established to advise the WPB Chairman on policy matters and it was assumed that through coordination and clearance the general strengthening of labor representation throughout the WPB would affect the Drive Division as well.

It is not unexpected that the War Production Board should follow a compromise policy in the matter of labor participation. And it is fair to say that, aided by the workers' own sense of urgency, the production program has certainly been a measurable influence to the good. But it probably has not tapped the productive resources of labor as would a courageous and pioneering policy bent on giving labor a major voice in the

program. Robert S. Lynd issued a useful reminder in a magazine article²⁴ that American workers are not inert and that they like to identify themselves with movements and are eager for group participation that makes demands of them. "They need no persuasion," he says "to participate in things — if given a chance to do something that seems like genuine sense to them. But the sense must be theirs, not Washington's or just the employer's."

In summary, the war period unquestionably has wrought some changes in the normal performance of industrial labor, particularly where the manpower shortages have been felt most keenly. It is inevitable that many local unions which previously encouraged or countenanced restrictive practices have found it desirable to modify these and that other unions have come to look with favor on incentive plans. In other words, it is the artificial, consciously imposed, and overtly enforced limits on output that are most easily and naturally relaxed. Doubtless there have been changes in the attitudes and work habits of individual workers as well. At the same time one may venture the guess that where restriction exists simply as a matter of customary levels of production and habitual failure to achieve optimum efficiency changes have been slow and unimpressive. Furthermore, old ways and attitudes will be resumed quickly as soon as workers feel they are necessary.²⁵

24 R. S. Lynd, "Not That Way, Mr. Nelson," *The Nation*, April 4, 1942.

25 It is interesting to note from discussions appearing in British journals and press that restriction apparently has not been abandoned entirely by British workers in the midst of their war effort. *The New Statesman and Nation* of January 10 and 17, 1942 commented on two articles appearing in the London *Times* entitled "Brakes on Production" which listed as one of the factors keeping war production 40% below capacity the fear of workers on piece rates that increased speed on their part would result in rate cuts. In a letter to the *Times* a prominent employer representative protested that rate cuts were forbidden by union agreements. However, as the *Statesman* pointed out, another employer letter writer who "deplored" excessive piece rates let the cat out of the bag when he stated, "It may not always be possible to reduce the rates paid, but other solutions can be found; for example, suspending work on a particular article and arranging

Union attitudes on the question of efficiency. Because they always have been the losers from fluctuating employment workers have naturally been on the defensive in their approach to incentive wage questions as exemplified by the restrictive policies which have been discussed. As a result unions are frequently accused of taking a negative attitude towards if not actually obstructing industrial efficiency.

Case situation No. 33. An investigator frequently hears stories on the order of this incident related by the management of a firm making children's shoes in New York City. This firm decided to produce a kind of shoe new to its line. Piece rates were set on the basis of production consisting of the larger sizes of this line. When the firm switched to production of the smaller sizes, the union demanded the same rates as before. The firm took it to arbitration and won. Despite this verdict, the workers managed so to obstruct production of this line that the firm preferred to abandon it at a cost of \$15,000 rather than make a fight. It may be added that union representatives will match such stories with their own examples of cases in which the union has made concessions on piece rates to help management secure contracts, get a new line started, or stave off failure.

From the point of view of unions the problems raised by incentive methods are very similar to those raised by technological change. In either case the official position of almost any union is that it does not want to block progress but that it will attempt to keep the burden of change and accompanying adjustments from falling on the workers. More specifically as to incentive plans, unions contend that too often they have increased production per worker by exploiting his desire for higher income at the expense of his health, safety, comfort and the quality of his work and that this is not true efficiency. Unemployment resulting from incentive methods also has served to obscure considerations of efficiency for workers.

for its manufacture with a contractor who is free to fix piece rates on a fresh basis." Recent issues of *The London Economist* have reported increasing use of payment-by-results wage systems in British industry.

At the same time, most union officers are aware of the necessity of keeping their plants competitive. In urgent cases unions have bowed to this necessity by accepting a change from an hourly to an incentive basis of pay, and where hourly rates remain in effect many cooperate in seeing that production standards are maintained. Nevertheless it is true that problems of production and efficiency do not hold the main attention of organized labor. Usually, it is only where these problems are forced on unions by threatened loss of wage standards or employment that they take a positive interest in them; it is under such circumstances that unions have accepted or actively promoted efficiency programs in the hosiery and garment industries. For instance, the garment unions have contended for many years that one reason garment manufacturers tolerate inefficient productive processes is that piece work assures them a fixed labor cost per unit regardless of the volume of output, thus throwing the cost of inefficiency onto the workers themselves. It was partly in recognition of this fact that the International Ladies Garment Workers Union promoted its efficiency drive and demanded certain specific undertakings from employers with regard to the improvement of standards of efficiency in the New York dress industry. A critical economic situation also has provided the impetus for nearly every one of the United Steelworkers' union-management cooperation ventures in production problems. In these situations labor's contributions have been substantial and unique and have revealed that workers have a large fund of intimate knowledge about the processes of production in their own industries which can be used to great advantage by managements. It has been shown also that genuine union-management cooperation brings forth a notable response in worker interest and effort and that industrial relations benefit proportionately. It is under conditions which obtain in one of these collaborations that a group of workers is willing to take part in an increase of productivity which they would brand a speed-up if it were imposed by management alone under ordinary conditions.

Labor contributions to efficiency are not limited to the more outstanding examples of cooperative action. The present investigation revealed how constantly union committees, in the course of negotiations over grievances, particularly in connection with incentive rate or standards problems, contribute practical and valuable ideas on the reduction of scrap loss, on plant layout, and on production methods and processes. However, regular provision for the direct consideration of such problems is still the exception in the bargaining relations of most manufacturing firms.

CHAPTER V

EXTENT AND NATURE OF UNION PARTICIPATION

It is evident from the preceding discussion that no matter how widely organized labor differs within itself on its policies towards incentive wage methods there is fundamental agreement on the principle that these methods must be subject to some control by labor through collective bargaining. The workers in an electrical apparatus plant who would like to eliminate or modify the complex point system by which they are paid and the piece workers in a men's clothing shop who are quite satisfied to be paid by the piece are likely to have had quite different experiences with their respective wage systems, but they are united as to the necessity of having a voice in the determination of the conditions which govern their earnings. The question is what this rather general aim means to individual unions in actual practice. It was the concern of the field study which forms the basis of this report to discover what types of participation selected local unions have worked out and in what form they have been exercising control. For some of the newer unions the working out of incentive wage problems through collective bargaining has meant a certain amount of breaking new ground. For, as was pointed out earlier,¹ the negotiation of questions having to do with ordinary wage increases, or overtime, or seniority is not necessarily preparation either as to content or bargaining procedure for the type of continuous interchange that must take place between management and union representatives when they are setting incentive rates and standards or dealing with grievances over rates and time study.

The words, "participation" and "control," will appear frequently in this discussion for want of other and better terms to describe the particular union activities and relationships that

¹ See discussion in Chapter II, p. 31.

are involved, and some clarification of their meanings is in order. The degree and kind of authority which a local union is able to exert over incentive wage policies and methods in a plant can seldom be defined to a nicety; that granted to it by agreement it may not be able to exercise in practice and it is likely to be a fluctuating quantity in any case. Properly speaking, the term, participation, should apply only to those activities of unions which consist in taking some actual part with management in the processes of wage determination and not to the mere taking of exceptions through grievance negotiations nor even to the steps unions take to delimit management authority or to influence its decisions. However, the fact is that when collective bargaining becomes a part of the process of wage determination all measures taken by unions for the protection and benefit of workers are in effect a form of participation. In the same way, control may be defined in a strict sense so that it means something other and more than participation, but so far as incentive payment is concerned some measure of control is the purpose of most union participation. Therefore, in this exposition, it will be convenient to use participation in a broad sense to mean any procedure by which a union is able to wield any influence over management with respect to incentive matters, including effective negotiation of grievances involving such issues. Likewise, the word control may be used to refer to any degree of influence no matter how slight which a local union is able to achieve over management decision. Worried employers have often leapt to the false conclusion that unions mean only one thing by control—absolute and unopposed worker dictation of methods, rates, and standards. In reality, therefore, the terms participation and control as employed in this context are roughly synonymous and refer to the nature and quality of a whole union-management relationship as much as to any independent power of decision belonging to unions alone.

One of the questions to be answered by this investigation was whether participation by unions is ever carried to the point

of full labor co-partnership in wage administration or whether there is any observable tendency for it to develop. Field visits and a check of available written sources have revealed no existing example of complete union participation in scientific management activities,² and interviews with national and local union representatives present convincing evidence that unions are not seeking and do not wish this type of direct and full participation. In fact, employers would be surprised to know how many local union groups do not want and have actually refused further direct participation in management rate-setting activities than they now have. They realize, to begin with, that they do not have the resources to match industry in the trained personnel necessary. Job study and rate setting are time consuming procedures. One union representative in a rubber plant told of spending two months outside his working hours investigating a calendar operation just to discover that certain figures for machine times developed by management were in error. Besides, few managements are willing to recognize the average union representative as being qualified to criticize the work of their personnel.

Case situation No. 6. The following story from a union's experience in a large tire plant illustrates some of the ordinary disadvantages under which a union time study delegate must operate. A mechanical tread applier was installed in one of the tire rooms and necessitated a complete restudy of the particular job. Management worked out a new standard and posted it but the men did not protest it until the job went into operation. Their claim then was that they had to work too hard for their accustomed B hour performance. The company recheck confirmed the standard, so the union time study representative instituted his own check. He had trouble at first

² The earlier and now defunct experiments in fairly complete cooperation based on scientific management principles were the Pequot or Naumkeag case and the Cleveland garment industry experiment. Both experiences are summarized in Slichter, *Union Policies and Industrial Management*, *op. cit.* See Ch. XVIII and Ch. XIV, respectively.

getting the standard practice breakdown or specifications on the new job; he finally did so by registering a strong protest and going over the heads of lower supervision. He then made a 6 hour time study of the job from which it took him another 7 hours to recapitulate and calculate his B values. His figures on observed times were practically in agreement with those of the company time study man but the final B value was set at 7.1 by the union representative as against 6.1 by the company analyst. The difference could be traced almost entirely to a difference in speed rating and could be narrowed down further to several major elements in the job. But how was the matter to be settled then? The difference was largely one of judgment, and management argued, with considerable justice, that the union representative lacked the requisite training and experience.

Also, many union leaders feel that cooperation on this level is very apt to take a union outside its province with resultant difficulties and dangers. Just as soon as they begin to share responsibility for rates and standards, a union committee and officers expose themselves to almost inevitable suspicion, criticism, and disagreement from the membership. Regardless of other considerations, of course, there is strong opposition anyway to the direct type of union participation which springs from the traditional prejudice of workers against scientific management itself. Unions and individual leaders who have tried it have found it extremely hard to take the broad view of plant production problems and to consider impartially the merits of particular wage questions and at the same time successfully minister to the demands and interests of one party to every issue.³

³ The experience of the union in the familiar Naumkeag experiment in cooperation is a case in point. See R. C. Nyman, *Union Management Cooperation in the "Stretch-Out"* (New Haven: Yale University Press, 1934). In *Technology and Labor*, Yale University Press, New Haven, 1939, Prof. E. D. Smith argues cogently that such a dual role on the part of unions is not workable on a long run basis. It may be noted too that Sumner Slichter, after reviewing the Naumkeag experiment in

Case situation No. 24. Commenting on this problem the president of a powerful local of auto workers stated emphatically that if a union wants to be admitted to joint determination of incentive wages the leadership must be prepared to be honest and reasonable. He admitted that this is sometimes hard for the committeeman of a vociferous group of men, especially if he comes up for election soon. In this connection he recalled that he had gone in on timing disputes a couple of times at one plant when a committeeman felt unable to handle the matter. One time he checked a rate, found it satisfactory, and told the men to get to work on it; he said he was reviled, threatened, and assured that he would be replaced at the next election. Shortly thereafter the men were making good money and all was serene. This official also made the point that employers are almost certain to find trouble by refusing to admit unions to real responsibility in the matter of rates, for in the face of such refusal unions will fight for all they can get by hook or crook.

This merges into the question which was discussed in an earlier chapter.⁴ Is there a basic ideological incompatibility between unionism and modern management? It is not necessary to settle that controversy to recognize the great practical hazards which confront any union that tries to function in a dual capacity. It was interesting to observe the concern with which officials of one national union viewed the readiness of a small manufacturer to embrace cooperation by turning over to the union an undue share of his managerial responsibilities. The union insisted that he at least reassume final authority over hiring and firing. As one official put it, "We want cooperation, not operation." For one reason or another, then, unions in general prefer to play the role of challenger and critic, rather than participant, in relation to scientific management methods. Workers

his book, concludes that unions should let management assume the primary responsibility for determining job standards and confine themselves to criticism. *Union Policies and Industrial Management, op. cit.*, p. 559.

⁴ See Chapter III, pp. 67-79.

point out that they do not need to see that every rate and standard is correctly determined; they are adequately protected if they have the right to question, investigate, and negotiate any rate or standard that appears to be unsatisfactory.

Case situation No. 6. Thus one finds that a large rubber and tire plant local which has taken the initiative in giving some of its members technical training necessary to deal with supervision on incentive wage questions has altered its original conception of the kind of participation it wants. It once asked for the right to approve all new or changed rates and standards. The officers now state that they would not want this authority and responsibility if they could have it. Nor does this local desire joint time study as a matter of regular procedure.

This conclusion seems to lend support to the common assumption that participation by organized labor in management activities is never an end in itself but a means to the accomplishment of other purposes. In the case of incentive wage methods it would mean that where labor participates it does so solely to maintain fair principles in the application of those methods and that where, and so long as, a management's policies are fair the union ceases to have reason for participating. The current policies of most labor groups certainly appear to sustain this view, but there is another aspect to worker participation of which most employers and union leadership do not seem fully aware. It shows up in such human relations studies as the Western Electric experiments previously alluded to in this report. It shows up also in the comparatively few cases where genuine union-management cooperation on production problems has occurred, where individual worker effort and results have leapt upward at a rate which the workers would not tolerate under other auspices. This less obvious product of worker participation, the sense of participation itself, makes it desirable regardless of what it achieves in control over management. It can satisfy a desire in workers for self-expression, for

social function that commonly has no outlet in the modern industrial job. This aspect of industrial relations is beginning to receive some realistic attention from forward-looking personnel and management people and from such unions as the United Steelworkers. A strong plea for greater labor participation is made by Golden and Ruttenberg in their book on industrial democracy.⁵ Their advocacy is based on the need for improvement and control of management practice and on the benefits to be derived in democratic self-expression by workers. Their conclusions as to the principles of wage determination are: "1) Participation is a constructive and positive undertaking" and to be successful must be based on union security; "2) Greater results in production and earnings are achieved when wages are set, jobs are evaluated, and work standards are determined jointly by management and workers through collective bargaining than when management does these things solely and arbitrarily."⁶

When one recalls that the pre-depression period saw quite a series of experiments in union-management cooperation including some in which the cooperation of workers in scientific management methods was enlisted,⁷ he is tempted to speculate as to why these relationships did not persist and as to the nature of the participation that was achieved. Some were terminated pretty clearly by conditions of economic decline and depression.

⁵ *Op. cit.*, p. 187; Chapters VIII & IX contain many illustrations with which they document their arguments. See especially the report on one case by the union representative in charge, pp. 175-178.

⁶ The recent report of a committee of the National Research Council contains a section on "Self Expression in Industry" which supports similar conclusions. See *Fatigue of Workers, op. cit.*, p. 108. As a matter of fact, recognition of the inadequacy of financial incentives and of the need for other measures is not new. See, for example, Helen Marot's article, "Production and Preservation of Initiative," in *The Annals* (Vol. 91, 1920), in which labor participation in management decisions was urged as a means of arousing the "creative impulse" in workers. What is new is the existence of strongly established industrial unions capable of giving reality to such participation.

⁷ See the group of cases summarized by Spencer Miller, Jr., *op. cit.*

In other cases, the collaboration was definitely occasioned by economic problems facing an enterprise or a market and once they were surmounted and the activating leadership passed on to other things, the relationship ceased to have meaning. Still other cooperative programs seemed to be expressions of welfare capitalism or advanced personnel policy on the part of certain progressive employers. In any case it would appear that in many instances management took the initiative and assumed responsibility for pushing the program.⁸ To the extent that this was so one wonders how genuine worker or union participation ever became and to what extent it constituted a real outlet for the worker desire for self-expression and self-determination. If something was lacking on this score in several of these experiments it perhaps helps explain why they did not have greater staying power. The same questions can be applied to the war program of labor-management cooperation developed to facilitate the production drive. It is not possible to judge as yet whether the joint committees which have been set up for special reasons will be sustained later by an interest on the part of labor that is rooted in a real sense of participation and the knowledge that new lines of action are open or whether the motive power is only government promotion and the enthusiasm temporarily energizing all parties to the war effort.

A well-known management engineer has suggested another sort of reason why organized labor should have direct, genuine participation in incentive wage determination. He considers participation in the form it usually takes — review and approval or protest of management-determined rates and standards — quite unsatisfactory. It too often reduces itself to “horse-trading” without reference to factual data; and it usually means that the union lacks the necessary information

⁸ Mary Gilson's account, in her *What's Past is Prologue* (New York: Harper & Bros., 1940), of the experiments in scientific management at the Joseph & Feiss Co. of Cleveland certainly gives the impression that, enlightened as were the efforts to stimulate worker participation, the impetus and drive came from management.

and understanding. He recommends that representatives of the workers take part in the actual rate setting but that they be regular members of the plant's standards department and thoroughly trained for the work.⁹ It is noteworthy that a management authority should advocate a much fuller degree of labor participation in rate setting than is visualized in the policies of most unions.

There are many examples in the organized portions of the so-called piece work industries of full union participation in the setting of all rates prior to their application. In these industries, such as clothing, shoes, and hosiery, although the process of rate setting is a continuous one, it usually is not complicated by scientific techniques so that the union participation is not of the type visualized in the preceding discussion. There are occasional instances also of an unusual degree of union participation in particular phases of management's conduct of wage matters. In two small steel companies the local unions participated directly in the job study preliminary to the introduction of incentive systems; in other cases locals have taken part in job evaluation and setting up wage classifications; locals in several industries have had their own time study representatives who take part in job study on a more or less irregular basis. These and others to be discussed in greater detail are examples of participation that are exceptional in the initiative, responsibility, and degree of control which they allow the representatives of the workers. Nevertheless, in no sense do any of these arrangements place a union in a role of authority and responsibility to equal that of management as regards the whole process of wage determination. Not only does the authority of the union remain subordinate but it continues to look upon its unusual bargaining privileges as protective and remedial in character, not as collaborative.

This is partial answer to a second general question to be raised about the nature of union participation: Is there evi-

⁹ Phil Carroll, Jr., "One View of Labor's Participation in Time and Motion Study," *Advanced Management*, VI (1941), 75.

dence that any phase of wage administration activity may come to be handled jointly between union and management on a non-controversial plane? The possibility is suggested by the contention of certain management experts that modern time study is a process of factual measurement which should not be subjected to bargaining. The possibility is suggested also by the principle observed in those plant situations where there is union-management cooperation on production problems; the common rule in these cases is that the joint conferences on technical plant problems be restricted to the business at hand with grievances and ordinary personnel problems strictly excluded and treated in separate negotiations. The plant situations investigated for this study indicate that there is no noticeable tendency on the part of labor to separate incentive payment and related methods and treat them differently from other bargaining problems. In fact, time study, incentive plans, and similar management activities are still very much in the realm of major grievances so far as unions are concerned and there would appear to be little likelihood of their being viewed in any other light in the near future. This means that most of the questions raised by incentive plans and job study are issues and differences to be bargained rather than quantitative problems to be settled by mutual determination of certain objective facts.¹⁰ It may be repeated, therefore, that when the term participation is used in this discussion to refer to the role of unions in incentive wage determination it does not carry the connotation of a partner having an equal interest in the judicial use of scientific method. The significant fact about union policies in this sphere is that unions seek participation almost invariably for the purpose of taking issue with management and

¹⁰ No one has exploded more effectively than R. F. Hoxie the claims made for scientific management methods that they eliminate the need for human judgment and for collective bargaining in determining objective facts about work standards and labor performance. See, for example, his chapter on "Scientific Management and Labor Welfare," *Trade Unionism in the United States* (New York: D. Appleton & Co., 1917), pp. 296-325.

seek only that degree of control that is necessary to make their point of view effective.

Most management representatives who were questioned agreed that grievances brought up for negotiation by the workers or the union are usually stated as unprecise objections or broad claims and rarely in the specific terms of element times, speed or effort rating, and like technical details of rate setting or job valuation.

Case situation No. 33. The attitude of many union officials seems to resemble that of the committeeman at a large steel mill who spoke rather ruefully of supervision's technical knowledge of precedents and agreement interpretations in handling grievance cases. He recalled one superintendent who gave him trouble because he based his position in disputes on technicalities. Finally, the committeeman said to him, "Look here, let's forget the technicalities and talk steel worker's talk." This unionist claimed that he gets results with this superintendent who now resorts to technicalities only when hard pressed.

If discussion is held at the technical level it is at the insistence of management and usually is not successfully confined to technical considerations even then. The employer who would keep the peace must supplement his scientific management techniques with a readiness to compromise.

Case situation No. 34. The type of management approach that seems to be called for is well illustrated by an incident that occurred at a large auto parts plant. A simplifying engineering change was made on an assembly job and the exact value of the eliminated element—17 points—was subtracted from the standard. The workers, through their committeeman, immediately protested vigorously that it was too tight. The plant manager pointed out that they had been turning out 140 B's an hour previously, with 125 B's the average output, so he had a clear cut case. He told the committeeman that he had him but because he knew the latter had stuck his

neck out with promises to the workers he would grant him 2 points. They finally settled on 3 points.

Although the two questions which have been posed in preceding paragraphs about the nature of labor participation have been answered in the negative, it must be remembered that these conclusions serve only to qualify the larger fact that in one manner or another unions are actually increasing their effective control over management decisions relating to incentive wages. The other considerations simply mean that unions are adding to their control not so much by direct participation in management procedures as by improved collective bargaining relations in general; the ideas and sentiments of workers are receiving more attention and greater acceptance from management.

Union representatives in incentive wage matters. The fact that most unions have no ambition to be accepted as responsible partners of management for purposes of incentive wage determination and that they expect to accomplish their purposes through regular collective bargaining channels does not mean that they could not make good use of men who are qualified by training and experience to meet management on its own terms. Many local officials have admitted as much and some have suggested that their international organizations would do well to retain management experts to serve in a general consulting capacity and to be on call to locals. The idea is not a new one. In 1929, Geoffrey Brown wrote an article for the Taylor Society in which he made the point that the only way in which organized labor can meet management effectively is on a scientific basis.¹¹ To this end he proposed that the national union organizations establish management research departments, employ time study engineers, insist upon adequate cost finding methods in industry, and promote thoroughgoing union participation in incentive wage and standard

¹¹ "Workers' Participation in Management," Bulletin of the Taylor Society, XIV (1929), 11.

determination. As we have seen, a broadening of union programs to take on the scope visualized in these proposals has occurred very slowly and remains a hope largely unrealized. A steel union official acknowledged that although there is a growing recognition of the need for trained specialists in labor organizations it is a slow process and there are still many men on union directorates who do not appreciate, and are reluctant to dole out money for, even the functions of an ordinary economic research staff.

The clothing unions, in fact, do have men on their headquarters' staffs who qualify as engineers in their industries and these unions and others of the larger organizations have not hesitated to employ experts for special investigations and for arbitration cases. In its St. Louis region, the International Ladies Garment Workers Union has made what seems to be one of the very few systematic attempts in the movement to train local union representatives in time study and efficiency methods. The Textile Workers Union has kept men in the field as "technical advisers" to locals in work load and wage disputes; they have not been trained textile engineers, but men with experience in the industry, who are familiar with the technology and are able to conduct time studies. In practice, these technical advisers are trouble-shooters who are sent into critical conflict situations, many of which have developed out of modernization programs in the textile industry. On the whole, they take little part in the regular determination of rates and work assignments. At least one textile union official questioned the value of maintaining representatives in this capacity. The United Steelworkers union has a representative, formerly a worker in the industry, who devotes his time to union-management cooperation cases, to problems and disputes having to do with incentive systems, and to job evaluation matters. The United Automobile Workers union added to its national staff a representative drawn from one of its locals to specialize in problems relating to production standards. In other industries the regular international representatives

may be called on for technical assistance in local disputes, and, while such men are usually better qualified than most local leadership by experience and often by a certain amount of reading in the field, as a rule they are not equipped to the best advantage. Occasionally, notably in the textile industry, regular provision is made by agreement for employment in disputes of outside technical assistance if the parties so choose, sometimes the union and management each chooses its own consultant; in other cases both parties must agree on a common engineer or expert.

Very few local unions are served by representatives who have technical training in management matters. When the two steel locals previously mentioned agreed to cooperate in introducing incentive systems into their respective plants on condition that they share in establishing the underlying job standards, union members without previous training had to be taken onto the time study staffs and learn the methods from scratch. At one of the large tire and rubber plants where the local has taken an unusually active concern in the effect of the incentive system on the workers, several young union members are attending night classes in time study with the definite aim of having a worker representative in each of the main plant divisions who is competent to handle grievances pertaining to standards. One department of the United Automobile Workers union is reported to have sent some of its representatives to classes in time study procedures. In a large Detroit plant under contract with this union the local has established a Time Study Committee of several union members who have received some training from the company standards department. A further aspect of the unusual measure of cooperation which exists in this plant is a manual on production standards and time study procedure which is issued jointly by the local union and the company in the interest of promoting greater understanding among the workers and the supervisory personnel. At a glass plant a young union member who happened to have taken some

night school work in management subjects was elected the local's time study representative and proved a great help to the workers in that capacity by checking on management in grievance cases and investigating worker claims. At several plants visited during this inquiry the management had offered to coach a worker selected by the union in time study matters or to give a series of classes or demonstrations to the whole executive committee and anybody else wishing to attend. The offer was rejected in some cases and accepted in others. At a flat glass plant the incentive engineer attributes the satisfactoriness of the incentive system in operation there, in part, to his efforts to give the workers some understanding of the methods and procedures involved. In a series of group meetings which eventually covered the entire production force, the incentive plan and the method of determining rates through the use of time study were described. It is also this engineer's practice whenever a rate question threatens to get difficult or methods are criticized to call in the group affected and go over the time study sheets with them, have them use the stop watch and make some experimental speed ratings. The time spent by the workers at these meetings is always compensated by the company. The management of a southern textile mill recently took a union officer onto its time study staff with the understanding that he would be representing the workers' interests. The union is not unduly hopeful about the arrangement because it is not confident of this particular member's integrity and fearlessness.

These instances of specific training or specialization on the side of the union are distinctly the exception. Nor are local unions making a noticeable effort to train individual representatives or to educate their memberships to understand or deal with these methods, with the exception of a few locals which have a text or two on scientific management methods available for the use of the membership. Within the United Electrical, Radio, and Machine Workers the Committee on Time Study and Piece Work Prices of the General Electric

Locals Conference Board meets periodically to consider incentive wage questions applying on a company-wide basis. The most comprehensive and effective union publication dealing with incentive plans and time study which has come to the writer's attention is the "U. E. Guide to Wage Payment Plans, Time Study and Job Evaluation" issued by this International Union in 1943. It is a cleverly illustrated little booklet of over 100 pages which answers a long-felt need for an understanding treatment from labor's point of view. It opens with a persuasive argument for incentive wage methods which are properly applied and subject to satisfactory union participation and safeguards. In three successive chapters it deals clearly and purposefully with common incentive plans and their operation, with time study, and with job evaluation. An interesting feature of the booklet is the Appendix which contains a section on "Practical Application," including a selection of sample contract provisions, and a glossary of technical terms. It is hard to conceive of a group of employees, whose rank and file union leadership had been armed with this Guide, who could be subjected in the future to any serious degree of misapplication of incentive methods.

Geoffrey C. Brown, a consulting engineer for the American Federation of Labor, wrote a critical analysis of the Bedaux system which appeared in *The American Federationist* in 1935.¹² This article has been reprinted to a limited extent in the press of other unions. Solomon Barkin, Research Director of the Textile Workers Union, has written a series of brief articles on time study and work load problems which appeared in *Textile Labor*.¹³ But these topics are not dealt with, for the most part, in the union press. Nor have they been included in union educational programs except as they arise in the course of

¹² "A. F. L. Report on the Bedaux System," *The American Federationist*, XLII (1935), 936. In response to numerous requests this article was reprinted in the *Federationist* of September, 1938.

¹³ *Op. cit.*

meetings of shop stewards.¹⁴ Despite lack of formal training, however, there are many local union officers who have a rough understanding of the incentive and time study methods employed in their own plants or industry. Such a working knowledge gained through experience and observation may be quite sufficient in many a bargaining situation, especially when supplemented by an intimate knowledge of the jobs themselves.

Unless a local has a special delegate to handle time study and rate questions, the regularly accredited officers, the bargaining committee, or whatever representatives carry on the routine bargaining duties of the union also conduct the negotiation of incentive wage questions. Where a local organization is able to support a full-time business agent or other officers, most of the responsibility for negotiation falls on such representatives. In men's clothing, price (i. e., wage rate) making is almost entirely in the hands of the business agents and price experts. In shoes, women's clothing, and millinery, business agents also play an important part in price settlement, but local shop committees frequently carry on the negotiations at the first stage. It may be added that, depending upon the situation, a business agent may act as the representative of all the workers in a plant or of one craft throughout several shops or that he may be employed by a single local or by a joint board or council.

Where a local covers a large industrial establishment and its participation in incentive wage determination is principally through the channels of grievance proceedings the immediate representatives of the workers in the plant—the shop stewards and the departmental committeemen—assume increased importance in the bargaining. It is up to them to see that prevailing incentive rates and standards in their departments or

¹⁴ An interesting development in the way of training opportunities for labor representatives in the field of wage administration and job study is the inauguration by Harvard University of a series of courses established especially for workers and union representatives. The curriculum includes courses in Industrial Management, Job Analysis, and Rate Setting. See the account in the *Journal of Electrical Workers*, Sept., 1942, p. 443.

sections are not infringed upon and that guarantees under the agreements are upheld. They are the first agents of the union to handle grievances growing out of the activities of time study men or the operation of the incentive plan; they deal on the spot with foremen, time study men and other supervisory personnel. If they know the agreement thoroughly, know the jobs in their department in detail, understand the fundamentals of time study method and other aspects of the incentive system under which they work, are sufficiently aggressive and at the same time have impressed management with their fairness, these union officials often can be successful in disposing of grievances or obtaining the necessary adjustments or corrections in the first instance, which eliminates successive bargaining steps and delay and which helps to make the incentive method itself acceptable to the workers. Much of the effectiveness of a union's program to give its workers protection and security of earnings under an incentive plan depends upon the capabilities of the elected stewards and committeemen. The more continuous and direct union participation becomes the more critical becomes the responsibility which rests on these officials. Considering the difficult choices and conflicts in motives which face them, it is not surprising that they do not always measure up. In more than one plant that was visited during the field study the sudden emergence of conflict over issues relating to the wage system could be traced to the fact that a recent election had brought in a new set of shop stewards. This could mean either that the new men, lacking experience and the confidence not only of supervision but of the workers, were not able to settle grievances as successfully as their predecessors or that as new incumbents anxious to make good they went out of their way to find or create issues.

These are among the considerations that have led the auto workers and other unions to campaign for effective shop steward or committeeman systems as the basis for collective bargaining in their industries.

Case situation No. 35. The head of one large auto local explained that the lack of conflict over production standards in his plant was the result in part of the fact that the union is given a real voice in the determination of standards. But he attributed it also to the fact that differences over standards are not taken up through the ordinary grievance channels but are handled on a basis of almost complete departmental autonomy.

Employer representatives also bear witness to the importance in industrial relations of the men who represent their co-workers on the shop floor. There are many plant executives who are fond of enlarging upon the amount of trouble that one belligerent or radical committeeman can cause, and such union policies as restriction of output and abolition of incentive plans are frequently attributed to the election ambitions of union officials. Management men who criticize the lack of democracy in the local union with which they deal seem unaware of their own inconsistency later in bemoaning the fact that, once a set of stewards or committeemen has been broken in and educated to management methods, the process must be repeated with a different set of men and smooth industrial relations subjected to the hazards of intra-union politics.

In incentive wage matters the vested interests of special groups within a labor force may affect the course of bargaining relations as much as the personal and political ambitions of individual union leaders. The fact that the prevailing form of labor organization in heavy industry is that of the industrial union has not eliminated the notions and aspirations of individual occupational classes regarding the ranking of their jobs and the appropriate incentive rates they should receive. If these special groups are sufficiently organized and aggressive, especially if they perform strategic operations, they may be responsible for a disproportionate amount of controversy in the settlement of incentive rates. The shearmen at a large steel mill have played such a role, and the polishers at a steel fabricating plant, and the boners in a meat packing plant, to mention only a few examples.

Like certain craft elements in the clothing, textile, and shoe industries the demands of these special groups tend to distort the job and wage classifications in the companies and industries involved.

Employer representatives. Incentive systems and time study methods naturally have required far more specialization on the management than on the labor side. In all but the smallest companies and those using simple, rule-of-thumb piece work a technical staff of some kind is necessary, even if it is only a foreman who doubles as a time study man, to set rates and standards and to carry on whatever amount of job analysis is required under the wage program. As a rule, the larger plants and companies employ the more technical and ambitious methods and require the largest specialized personnel. In such cases this personnel usually has independent status in the form of an efficiency or time study department and is headed by a management engineer. In other plants it is simply a matter of several time study men working under the direction of the plant manager or some other regular management officials. An interesting departure from the rule that advanced management practices usually accompany large scale operations is to be found in the case of one of the smaller automobile companies which nonetheless operates a sizeable plant.

Case situation No. 36. This firm continues to operate on a piece work basis and has steadfastly avoided the adoption of modern techniques of job analysis. Most rates on new models are set simply by reference to previously existing rates and by approval of union representatives. Time study is utilized only in exceptional instances and then in the interests of cost information. The personnel director asserted that the omission of modern methods was conscious policy and that he felt rather looked down upon at personnel management gatherings; however, he offers it as one explanation of this firm's unusually successful labor relations. It is significant also that the local union in this case was one that openly expressed its satisfaction with the piece work payment method.

The technical administration of incentive systems of wage payment may be distinguished from the task of meeting the labor problems growing out of them and in many large firms there is at least a partial separation between the two functions within management. This separation is most clear-cut when responsibility for the wage system is vested in a special department, variously called efficiency, time study, or wage rate department while the personnel responsibilities rest with the industrial relations or personnel director. The latter is charged with supervision of all collective bargaining relations whether they pertain to seniority and discharge or to bonus rates and time studies. This separation of function does not always make for the smoothest industrial relations, for, unlike the situation on the union side of the bargaining table, supervision of negotiations and final decision are not concentrated in the hands of the same individuals or even departments. For example, if a disputed incentive rate is at issue and comes up unsettled to a personnel official, his duty is to meet with union representatives, hear the complaint and attempt to compose the differences; he may call in a representative from the time study department to explain the rate; he may call for a restudy of the job which is performed by time study personnel; again he will try to reach agreement. Time study or wage rate department representatives are likely to be in on the negotiations in an advisory capacity; however, they may not have authority to make an adjustment nor does the personnel director usually have that power. The issue, if still controverted, goes to a higher executive official who weighs the recommendations of the time study and personnel departments against the arguments of the union and makes a decision. This division of oversight on the management side sometimes is the source of division as to policy and places officials in charge of labor relations in an awkward position. Nominally in charge of negotiations and responsible for good relations, the personnel man may see reasons for a decision which he has no authority to make and which other manage-

ment officials, too preoccupied with costs and the technical basis for a refusal will not make. There are a great many plants, of course, where the conduct of negotiations and final decision in wage matters are in the hands of the same management representatives.

There are other employer representatives who can influence greatly the reactions of workers to incentive methods. These are the foremen, time study men, and other lower supervisory officials who come in regular contact with the workers and deal with all complaints and grievances in the first instance. These officials rarely have any large degree of authority over final rates and standards, although this is not always true in smaller enterprises, but their jurisdiction usually includes many of the extras, working conditions, and attendant circumstances which make an incentive system satisfactory or unsatisfactory to the workers. The time study men themselves can do much to make or break a plan. It is largely up to them to educate workers in the methods employed and convince them of the fairness of the results. Many personnel men have noted that a large part of a time study man's job is or should be spent in maintaining good will.¹⁵ He will arouse immediate worker opposition if he makes mistakes, if he exhibits ignorance about the job he studies, if he fails to take into account all the qualifying conditions, and if he is too severe in rating the operator. In this connection the head of the time study staff in an auto plant which manages to operate a piece work system with very little controversy remarked that he would not think of having as a time study man someone who had not had years of working experience at the type of jobs he would study. At several plants visited where relations are well established on a basis of mutual confidence, the union has been permitted to take the time study men into membership, a step that ordinarily is very strongly opposed by management.

¹⁵ Phil Carroll, Jr. has stated that 75% of a time study man's efforts should be devoted to human relations. See his "One View of Labor's Participation in Time and Motion Study," *loc. cit.*, p. 76.

Similarly, there are numerous small ways in which foremen can influence workers' attitudes toward an incentive plan. They may be considerate of union wishes as to which operators, or how many, shall be timed, as to how long the timing shall last, and under what working conditions the observations will take place. They may govern the distribution of work so that the hard work or poor material will be equally divided and so that all workers will share equally in slack periods. They may be liberal in granting allowances for poor material, for unexpected conditions, and for lost time. Lower supervision also can do much to explain timing methods to workers and the manner in which rates and standards are determined and earnings are computed. Needless to say, time study men and foremen are not independent agents in dealing with workers. They cannot make an incentive scheme operate satisfactorily for workers if top management does not take the lead or if they are compelled to get out more production regardless, to take the slack out of loose standards, and to pare new rates. On the other hand, no matter how well intentioned top management may be, an incentive system will continue unsatisfactory unless there is close managerial check on the detailed policies of lower supervision, especially if the supervisory personnel is a carry-over from an earlier way of doing things. On the whole, top management is more easily converted to wise incentive wage policies than is lower supervision. It must be noted in addition that economic exigencies may nullify the best intentions of all management representatives. This is particularly true in industries where substantial segments are non-union and the organized employers are forced to meet lower labor cost competition.

In addition to the employer representatives from within company managements mention should be made of the practice of engaging outside engineering assistance. A company does this usually in conjunction with some major step in management such as a reorganization of production processes, a wage classification, or the introduction of a new incentive plan.

In most manufacturing industries the installation of incentive systems preceded the organization and recognition of unions so that participation by the workers in the initial setting up of incentive payment was virtually unknown. Nevertheless, workers have had experience of outside engineers in other capacities and have learned to be more suspicious of such firms than of their own managements. Consultants and efficiency experts are employed primarily for one purpose, to increase productivity and reduce costs as advertised, and their reputations depend upon the results they achieve. Moreover, their tenure in any one plant is of relatively short duration so they are not under the necessity of calculating long-run consequences. This short-run cost consciousness is an inevitable characteristic of the trade and has resulted in practices which have given these engineering firms their reputation as exploiters of labor.¹⁶ In the southern textile industry the compulsion of wage and hour legislation, growing unionism, and general cut-throat competition have given considerable vogue to the practice of bringing in textile engineering consultants to reduce costs by revising work schedules and improving production processes. These programs have frequently been the cause of serious labor conflict situations. It is the accusation of the union that too often the cost reduction is accomplished by increasing work loads without any serious study of mill operations and without commensurate technical changes. In a number of these situations the union has succeeded in negotiating readjustments and corrections of inequities or has obtained employer agreement to submit the disputes to arbitration.

¹⁶ Like employers, efficiency engineers were more subject to criticism on this score prior to and in the early days of industrial unionism. They are learning too that human relations are a part of their job. In 1941 the Bedaux Company is reported to have had its engineers in 83 plants, most of them in CIO organized industries. Before undertaking an efficiency survey it recommends calling in worker representatives. The president of the Company has stated, "We need the union's practical skill as well as our own scientific skill so that with management we may arrive at a tri-partite agreement." See the story in *Time*, January 19, 1942, p. 69.

In some industries, associations of employers play an important part in the negotiation of incentive wage questions. This is true in the garment, millinery, hosiery, shoe, and leather industries and in a few instances in the textile industry. In several cases the association has little other purpose than labor relations and association representatives sometimes almost entirely supplant the individual employer in the price making process.

Case situation No. 37. The lengths to which this delegation of authority can go is illustrated in the case of the attorney for a group of silk manufacturers. He stated that he performs the function of a business agent for many of these shops and that the union business agents in turn practically live in his office. An employer encountered in this official's office said he was waiting to see the attorney about a grievance in his shop; since the attorney could talk to the union about it as he, the employer, could not he would let him handle it. The attorney reported that many grievances, including rate and job assignment questions, cleared through him in this way and that although he is an employer representative he fulfills the role of arbitrator to some extent as well.

Arbitration. The services of an impartial third party or body are an important part of the machinery for the determination of incentive rates and job standards in some industries. In Massachusetts the State Board of Conciliation and Arbitration constitutes the final step in the bargaining procedure in both the shoe and leather industries and has handed down a great many decisions in disputes over piece rates. In difficult cases the Board frequently calls for the assistance of experts selected by each party to the dispute. These men have authority to make a first hand investigation of the issue or disputed operation and of comparable situations as a basis for their recommendations to the Board. But the latter renders its own decisions which are binding. Arbitration has long been a characteristic feature in the clothing industries. At the present time in the New York and Chicago markets in men's clothing it does not

figure at all in the settling of piece rates because there is no need for it. However, in the New York women's garment industry impartial adjustment is a highly important final step in the joint price settlement machinery in both the dress and coat and suit branches. For the former there is a price adjustment bureau attached to the Impartial Chairman's office and for the latter there is a price adjuster attached to the National Coat and Suit Recovery Board. Piece rate settlements are likewise an important part of the duties of the Impartial Chairman of the full-fashioned hosiery industry. The Impartial Chairman in the New York millinery market also handles a large number of price disputes. The Textile Workers Union is attempting with some success to establish a policy of using arbitration in the adjustment of work load and wage disputes.¹⁷ In both the steel and automobile industries there is increasing resort to the arbitration process, but whether disputes over scientific management matters and production standards will be submitted to settlement in this manner it is impossible to foresee. In other manufacturing industries unions and managements agree occasionally to arbitrate a controversy but it does not constitute an integral step in the collective bargaining process as in the clothing and shoe industries.¹⁸

The United States Conciliation Service, which is not an arbitrating agency, is often requested to designate arbitrators, from its own staff or elsewhere, to serve in disputes in industries which have no standing umpires. In addition, without functioning specifically as arbiters, Conciliation Service representatives are brought into disputes on a consultative basis.

¹⁷ Solomon Barkin, "Arbitration Supplants Strikes in Stopping Textile 'Stretchout'," *Arbitration Journal*, April, 1940, pp. 85-90.

¹⁸ In contrast to these trends toward the increased use of arbitration procedures one finds an occasional determination to exclude incentive rates and standards from settlement in this manner. Thus, at one rubber company it is provided by agreement that "grievances arising out of any base rates and to be established on new operations or processes and new standards resulting from time study shall not be subject to arbitration."

In some of these cases they serve not only as mediators but as fact finders. For example, in the textile industry the Conciliation Service has been requested frequently to send members of its staff into local situations to make surveys or studies of work loads or wages in order to straighten out deadlocked negotiations.

Several local union officials revealed that the threat of arbitration can be used effectively as a bargaining weapon to secure a desired rate or standard when the employer is reluctant to undergo the publicity, delay, and expense of fighting his case through a proceeding. It was also admitted by many union spokesmen that a certain number of weak cases are purposely carried to arbitration in order that the arbiter may relieve the union leadership of making and enforcing unpopular decisions.

Procedure of union participation. The manner in which unions participate in incentive wage administration and the nature of the controls they exercise depend very largely upon the particular set of problems and the character of the bargaining relationship presented by each industry or plant situation. In a firm which employs a complicated wage system based upon scientific methods the mechanics of participation are sure to differ from those which obtain where simple piece rates are set on a basis of experience and precedent. Indeed, in terms of extent and mode of participation, it is well to distinguish between the greater part of manufacturing industry and the organized portions of the clothing, hosiery, millinery, and shoe industries. The fact that the latter are the only industries in which rate setting is really a joint process, the fact that in many cases they have a long history of successful bargaining relations, and the fact that modern management techniques and concepts have made few inroads, although characteristic procedural arrangements have developed, all combine to make the story for these industries quite different from the larger pattern. Another factor which differentiates most of the apparel trades is that the multitudes of styles and the very frequent changes in styles

necessitate a like number of prices and price changes. In consequence, the price making relationship between union and management is almost a continuous one. One can get a sense of the difference between the two types of industries and of the peculiar quality of the union-employer relationship which prevails in the piece work industries by persuading a qualified veteran in the union, say a business agent or board official, to talk about the development of his organization as he has seen it. This is especially true of those clothing markets in which the record of collective bargaining has been a long one. An important fact that immediately becomes apparent is the personalized relations between management and workers and union. The typical producing unit is small; the owner is often his own manager; and more often than not he is a former worker in the industry and may become one again if he fails. As a clothing union official put it, these industries are "labor" industries in which the overhead cost of scientific management methods cannot in most instances bring enough saving in labor to make them worthwhile. The union representatives, if capable, tend to enjoy long tenure; over a period of years, therefore, they and management become well acquainted and are forced to establish a good working basis which frequently becomes genuinely amicable and is quite free of the sparring, aggressiveness, and recrimination which set the tone in many industries where collective bargaining has not passed the belligerent stage.

A business agent for the Amalgamated Clothing Workers in Chicago who was interviewed had been engaged in price making for the union for approximately 20 years. He recalled that by no means had it always been the present routine and straightforward process. In earlier years of the union it was marked by much controversy and disputes were often prolonged. He attributed most of these early conflicts to the distrust which existed on both sides and to the fact that piece rates were convenient issues for testing general bargaining strength. He confessed that he used to conceive it his job as business agent to try to get all that he could on every rate.

The present atmosphere of cooperative effort in reaching a fair price came only with experience and mutual confidence. The position of the business agent in the clothing field has another aspect. Having often had long years of service and performing a function solidly established by long usage, he frequently possesses an independence of individual, craft, or group interest that does not obtain with representatives of other unions. From such a veteran unionist one gathers something of the qualities of union participation in rate setting in these industries. One is impressed by the durability of the relationships; union participation is very much of a system despite its lack of the systematic and the predominance of the personal. One is impressed too by the strength of custom as it governs rates and the procedure of settlement, and finally, by the great importance of the personal equation as it permeates all aspects of collective bargaining in these industries where it still is necessary often to have separate business agents for the principal language groups.¹⁹

For most 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, which were negotiated, for several basic grades of garments. The construction specifications distinguishing these grades and the minimum costs applying in each case are enforced for all unionized shops which manufacture clothes falling in these grades. Stabilization does not standardize individual piece prices for all shops and each new model in a local shop requires a price list. Ordinarily it will be drawn up by the appropriate union price expert in consultation with a management representative and the business agent, but all price lists are subject to the final scrutiny and correction of the Stabilization Department which is located in

¹⁹ For a management account of union-management relations and the rate setting process in men's clothing which bears out this description, see Morris Greenberg, "How to Operate Under a Collective Agreement," *Society For The Advancement of Management Journal*, Jan., 1938, No. 1, p. 7.

the national office and is responsible to the president of the union. In the Chicago market of this industry, where the stabilization program has not been applied because the product is predominantly high quality clothing, prices are settled entirely between the business agents and the respective firms. Throughout this industry, shop chairmen, shop committees, and union officers other than business agents and price experts do not take part in any stage of price settlement.

Price making in the dress and coat and suit branches of women's clothing has also been surrounded by systematic controls and procedures and the New York markets of these industries are foremost examples of joint piece rate determination based on continuous impartial machinery. The New York Dress Joint Board uses the "unit system" as a basis for price settlement on all lower-priced garments. This system is the result of an earlier intensive job study of dress-making operations which produced a set of standard times for all basic operations, the times being expressed in terms of units which in turn had a value of 10 to a minute. The money values for each unit are negotiated each year between the union and the employers' associations. The unit system has never been accepted formally by employers but it is used informally in the negotiation of piece prices on lower-priced garments. Each craft in each shop group of workers usually has its own committee which meets with the jobber or manufacturer as necessary to settle prices. Under the contracting system characteristic of both the dress and coat and suit branches of the industry workers were never safe from possible exploitation by way of lowered piece rates as long as each individual contractor was permitted to make prices for the workers in his own shop. The small separate groups of workers were unable to withstand the effects of the competition between contractors. Thus the present requirement that every jobber must be responsible for settling all prices for his contractors is a necessary safeguard governing settlement procedure. In the New

York dress industry if agreement is not reached in the first stage of negotiations, the business agent of the craft concerned will be called in from the Joint Board and probably a skilled adjuster from the staff of the Price Adjustment Bureau will be asked to assist. If there is still disagreement and the recommendation of the adjuster is unsatisfactory the case is taken up for impartial decision by the Chairman of the Bureau, the third and final stage in the procedure. The New York coat and suit industry also uses tables of prices as yardsticks to guide price making and follows a very similar procedure.

The details of the third stage of procedure are interesting. A written statement detailing the substance of the disagreement is filed with the Bureau and a hearing is arranged at which the representatives of the workers, the business agent, the jobber or some employer representative all appear before the Chairman of the Bureau. The garment in dispute is brought along and used to illustrate the arguments at the hearing. The hearing is a far from formal proceeding and frequently resolves itself into a knot of people gathered around the Chairman's desk all vehemently trying to make their points at once. The importance of the arbiter's patience, unexcitable temperament, insistence upon sifting facts, and thorough knowledge of dress price making becomes clearly evident at one of these sessions. No decisions are made on the spot and the garment is retained for examination by the Bureau staff and comparison with price lists and previous decisions.

To indicate the extent to which price settlement procedures in the clothing industries may be prescribed by the terms of the agreements, the pertinent provisions from a dress industry agreement are quoted below:

Place of Settlement

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 one, and

of all of his contractor's shops at the same time, either on the member's premises or at 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

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

This system of setting piece rates with the jobber is not to increase piece rates in such shops where the workers' earnings are above the minima provided for in this agreement.

Unsettled Garments

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 Affiliated maintains an inside shop and does not deal with any contractors.

(Agreement of N.Y.C. Dress Joint Board and Nat. Dress Mfr's. Assn., Feb. 20, 1936, Art. 11, Sec. 1-4)

The practice of utilizing price lists in the negotiation of rates is fairly typical in these industries where there are so many different prices and where styles and rates are subject to frequent change. The lists are sometimes very complete and are incorporated or given official recognition in agreements; or they may be nothing but familiar, though unwritten, scales of prices which have become established by practice and are carried in the heads of business agents and employers. In millinery, for example, the extreme variability of styles makes price lists impossible for any operation except blocking, but for other standard operations and materials there are prices which are informally observed. The lists may be held to religiously or may serve merely as guides to price settlement. The impartial price adjusters for the New York dress and coat and suit markets admitted that listed piece rates cannot be held to absolutely; the quality of product and the production situation of a given jobber may have to be taken into account. A millinery union official referred to the price settlement process in his industry as a matter of "speculation," meaning that a large element of guesswork enters in for both sides. The economic condition of the industry also affects piece rates. During a depression the tendency is to force rates down, whereas, during good seasons and relatively full employment piece rates are edged upward. These upward or downward trends occur in the course of ordinary piece price settlements and are distinct from blanket percentage increases or decreases which may be negotiated between the unions and the employers' associations.

Price lists are used also in the full-fashioned hosiery industry. The association of employers which embraces a majority of the unionized manufacturers in this industry has worked out with the union a system of standardized piece rates for all members of the association. A basic list of piece rate prices

has been drawn up. All changes in style, type of machine, and other variations which affect piece rates are included, either in the basic price list or as "extras" which are added on to the base 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 percentage of rates can be settled simply by reference to the established list. Disputed rates are carried up to employers, association officials and regional representatives of the union and finally to an impartial chairman. The piece rate list was drawn up on the basis of time studies of actual operations and time study continues to be used in setting new rates. Studies are performed by employer representatives but the union may check the findings by participating in the studies or taking independent timings. Trial periods and temporary rates also are commonly used in the settlement process. For the past few years comprehensive studies of earnings in union mills have been made impartially which provide a constant check available to the union and the employers as to whether or not rates in a particular plant are out of line.

Certain unionized centers in the leather and shoe industries also make use of price lists. In one New England shoe manufacturing town piece rates are governed entirely by a very comprehensive price list or book which is incorporated in the agreement between the union and the manufacturers' association. The individual employer and his workers do not participate in price negotiation at all; it is handled between the business agents of the single mixed local embracing all organized shops in the town and the price experts of the association. Most settlements take place in the offices of the association, the process being a matter of compiling piece rates by taking the appropriate price for each part and operation of the sample shoe from the price list; differences of opinion are confined almost entirely to "extras." Only occasionally is a shoe observed for timing purposes while actually in production. In the

New York City shoe industry, on the other hand, there is less standardization of piece rates since individual employers bargain with business agents representing the different crafts and a uniform price list does not exist. Regardless of the importance of price lists in the settlement of rates, however, workers will never allow such lists or mere precedent to supplant completely the evidence of their own knowledge and experience. A stewardess in one shoe shop reflected a common sentiment when she asserted that she would not participate in price making until she or some worker in her department had worked on a new shoe to determine its difficulty.

Price lists are used also in certain plants in other industries where incentive wages are involved and where many diverse articles are being produced or frequent changes are made in products; certain machine and rubber products plants are examples. The difference between these situations and the organized apparel industries is that the price lists or standard practice charts in the heavy industries are usually not negotiated and do not serve as a basis for joint rate determination.

The negotiation of incentive rates and conditions on a wider organizational basis than the individual plant is not often found. In the New England shoe center mentioned above, while the bargaining takes place between business agents of a single local embracing all plants in the town and the price experts of the employers' association, each individual price settlement involves as a rule a new style from a single plant only. However, the basic price book applies uniformly to all plants. The flat glass workers attempt to standardize not only base rates but incentive rates as well between similar, competing plants; however, incentive rates are negotiated by single plants. In the textile centers of New Bedford, Massachusetts and Paterson, New Jersey, where the agreements are written between joint councils or amalgamated locals and employer associations, there is a certain amount of city-wide or association-wide determination of piece rates and work loads. Of

course, in all the apparel trades the agreements frequently cover all plants or shops within a city or a market which means that basic negotiations are conducted between joint board or national union officials and representatives of employer associations. Where price lists are used they are worked out on the same basis and the objective of the unions is as much uniformity as possible in prices.

In rare instances only outside the piece work industries does one find a union sharing substantially in the advance determination of rates. In one interesting case, a steel products plant manufacturing a standard auto part, a joint rate-setting procedure has been worked out which resembles in many respects price making in the clothing trades.

Case situation No. 38. Production in this plant is on a piece work basis and most of the rate setting occurs at one brief period in the year when the Company is taking orders on next year's models. Sometimes the Company calls in two or three workers from several of the main departments in succession and blue prints of the new model are gone over, material costs are outlined, and perhaps some estimate of total costs is made. Then it is put into production for a trial period during which the men are paid day rates after which the Grievance Committee is called in to set final rates. Sometimes, it is only the Grievance Committee that is called in in the first place. In any case, before the final rates are set, the workers meet by departments either in union headquarters or in the shop and decide what rates they will request. It is the responsibility of the Grievance Committee to canvass the rate objectives of the various departments. The union president indicated that sometimes it is difficult to secure reasonable requests or to get reliable information from the workers. What the Committee tries to discover is how many pieces the men can turn out in an hour; he said that he had received figures ranging from 45 to 125 from the men in one department. The Committee members must use their judgment and watch the men at work; but they never use a watch. The procedure culminates in a meeting with the President of the Company

and other management representatives to fix final rates. Once fixed, the rates apply for the year unless unusual conditions require a change.

In the textile industry the situation with regard to worker participation is governed largely by the nature of the decisions to be made. Piece rate changes due to new styles or new materials are very infrequent. In any case, because of the nature of textile production it is the number of machines assigned to each worker, the character of the duties required of him, and the changes made in such job assignments that constitute the bargaining issues rather than piece rates as such. Changes in job assignments are made necessary by the introduction of new methods, new equipment, or the accumulation of many minor changes which cause employers to ask for larger work loads. Questions involving major work load changes arise very infrequently in the ordinary textile mill so that worker participation, where it does exist, is also infrequent. As a matter of policy the union requests that it be consulted in advance on all work load changes in the textile industry and this request has been granted as a specific right in many cases. Negotiations of issues pertaining to job assignments are often protracted. They may be accompanied by investigation of the work load situation in comparable plants on similar equipment, either by the union or an impartial third party; by time studies performed by local or outside union representatives; and by trial periods as long as three months. Deadlocks are often taken to arbitration.

Wherever possible the union attempts to secure two conditions to work load changes in the textile industry. One is that no worker is to be discharged as a result of the "stretch-out;" the second is that no worker is to suffer a reduction in earnings as a result of the new assignments.

Case situation No. 39. An example from the experience of a small southern rayon plant will serve to illustrate the character of participation in this industry. A change was made in the

winding room from a six-inch to a seven and one-half inch bobbin. The winders work at straight piece rates without a guaranteed minimum. The change in operation made necessary a change in piece rates and work loads for the job. The agreement between the union and the firm contained the following provision: "Any change in work load or work load on any new equipment must be negotiated." Prior to the change, employees tended sixty spindles and the rate was about 6.5c per "board". Both the company and the union made independent time studies of the new operation, then bargained over the new work load and rate. A regional union official actually spent several days in the plant with a stopwatch. As a result of these negotiations, the work load was increased to seventy spindles and the piece rate cut to 6.1c per "board." The earnings of individual operators have increased slightly, and production is now "pegged" at seventy spindles, a rule which has both union and management support. During the negotiations a new method of handling spindles was developed, which actually makes it easier for an operator to handle seventy than sixty. Instead of jumping around, the operator now handles each set of spindles in rotation. The union claims some but not all credit for this increase in efficiency. The union had an agreement in advance that no one was to be discharged because of the "stretch-out." The few displaced operators were absorbed elsewhere in the plant.

In the industries and plants in which unions do not share equally with management in the advance determination of all incentive rates and standards their participation takes the form of exercising a variety of bargaining rights of partial determination, review of management decisions, and, most important, the subjection of disputed rates and other issues to negotiation by way of grievance proceedings. The bargaining relationship represented by these types of participation is in sharp contrast to that outlined above for the piece work industries. Management is much farther removed from the workers and every privilege granted the unions marks the relinquishment of a management prerogative. For it is the tradition in these in-

dustries that the study of jobs and the setting of rates is purely a management function; the union has no voice in the matter until management announces a rate or until the rate is applied and the job is in operation. The union then has the right to take up as a grievance any rate to which workers may object and to seek adjustment through negotiation. This tradition is being broken down and in practice there often is systematic provision for substantial union rights in the way of review and objection. For instance, in the rubber, machine products, automobile, and electrical industries there are a number of plants in which it is provided that all new or revised rates must be submitted to the shop stewards or committeemen for approval, or to the bargaining committee. Occasionally it is provided that there must be a stated period of advance notice before changes in rates or standards are put into effect. In general, however, all aspects of wage administration remain a management prerogative and unions are presumed to have the rights of petitioners only.

The right of negotiation of grievances is the only type of participation in incentive wage methods open to the great majority of manufacturing employees. Superficially it would not seem to merit the term "participation" and in fact there are many bargaining situations in which the unions possess little appreciable control or influence over incentive matters. However, these cases serve to demonstrate that participation by way of grievance proceedings and bargaining conferences may vary widely in effectiveness, depending upon the policies of management and the bargaining strength and wisdom of unions. A great many local unions have found the grievance method quite adequate, for it imposes no formal restrictions on the topics a union may take up or on the effectiveness of the control it exerts. One example of what a tangible protection and basis for accomplishment the right of grievance negotiation can be is seen in the case of a large electrical apparatus plant where the local union has had no other specific rights of participation in regard to incentive wages. It has succeeded so

well in preventing rate cuts and in protecting increased earning rates that average performance and earnings at this plant are at the rate of about 98 B's per hour whereas under this type of wage system a level of 85 B's is considered normal.

Case situation No. 6. An incident related by the union in a large tire and rubber plant demonstrates how a well organized group can make its point of view felt when the occasion arises. A new band department was organized in this plant to supply first bands to truck tire builders. The girls were drawn from all over the plant and thus when it was set up as a unit of 200 or more girls it was poorly organized so far as the union was concerned. In time the girls worked their production up to 17% over base rates. Recently the company restudied the operation and posted revised rates representing a 16% cut. This took place on a Saturday. The union called a meeting of this department for Sunday morning and got about 100% attendance; the rate cut was rejected. At a meeting with management on Monday the president of the local announced that the department would not accept the cut. Management representatives were visibly surprised that the girls had already had a meeting under the auspices of the union. The president went on to state that the girls considered their existing base rates too low and were petitioning for an increase. A management official warned against any limitation of production. The president replied that he was not suggesting it, but if the cut went through he would have to go back and tell the girls that management wanted them to work without limit but was cutting their rates because they were 17% over base rates, and management could appreciate the consequences. At the time the story was told the management was holding the cut in abeyance pending investigation of the request for base rate increases, but the union counted it a victory.

Case situation No. 17. A very different sort of example may be cited to illustrate what an important part a union can play in facilitating a management wage program without directly participating in management activities. A children's and sports wear firm was installing the line system of production. This

meant a drastic change in the nature of operations and a speedup and a substantial cut in piece rates all in one and it met with strenuous worker opposition. Most of the plant personnel was female and both management and union agreed in attributing much of the opposition to this fact alone; in their experience women oppose mere change more than men. The introduction of the new system had the complete support of the national and local union leadership and although the union took no part in job study and rate determination or in the reorganization of production management admitted that without the union's moral support the change would not have been successful. The union cooperated in settling work stoppages, in holding meetings where the new system was explained and discussed, and in persuading workers to give it a trial. It was instrumental also in sending out the committee of workers who investigated and made a favorable report on a similar line installation in a comparable plant.

In addition to individual rates and standards, it is clear that workers can and do bring up through grievance channels matters affecting the group, time study methods and personnel, job ratings, allowances, conveyor speeds, wage classifications, and any other management decisions or activities that affect workers' earnings and working conditions under incentive wages.

Case situation No. 33. The following were typical issues taken up by the union at a large steel mill as revealed in its grievance records:

New rope wire machines changed the jobs of the wire drawers. The union fought for rates which would give these men their former earnings, and went so far as to accept a bonus system.

The company supplanted some 100 ton ladles with 135 ton ladles. The new incentive rate was set too low. The union worked for an increase and got it by accepting a one week suspension of the workers involved as penalty for slowing down during the time study.

The company began to roll in a No. 2 mill a size of seamless tube which formerly was restricted to No. 3 mills and wanted to set a new rate. The union maintained that the old rate should hold and that the company request was a subterfuge to secure a rate cut.

For some customers, the company packed tin plate 56 plates to a box instead of the regulation 112. The rate, set according to weight, was inadequate. The union secured a change to a rate that was one-third higher for the smaller boxes.

The company began producing in quantity a size of pipe which had occurred so seldom previously that the workers had not protested the low rate which applied. The union secured an increase.

Furthermore, workers are not limited merely to taking exception to management policies and decisions for they may initiate action on incentive problems through grievance channels. Needless to say, before grievance negotiations will prove satisfactory to a union for these varied purposes it must have proved its strength or won the confidence and cooperation of the employer, but these are necessary prerequisites to any other form of participation. Considering manufacturing industry as a whole, unions probably accomplish more for their members in the way of checking abuse of incentive methods, correcting maladjustments, and maintaining and raising earnings standards through ordinary collective bargaining of grievances than through more direct forms of participation and control.

Whether unions exert their control over incentive methods by sharing with management in the actual determination of conditions or by negotiating subsequent differences, a serious obstacle to effective union participation always has been the difficulty of getting access to job specifications and to wage and time study data employed by management in setting rates. Employers have been traditionally loath to make such information available to their workers, but it becomes increasingly clear that it is good industrial relations practice. Recent arbi-

tration decisions should hasten recognition of this fact. In a textile company case, Professor Sumner Slichter ruled in December, 1941 that the firm must provide the union with full schedules of wages, hourly and piece, and with information on work loads from which base rates are figured and on the method of calculating earnings above base.²⁰ In another textile arbitration case the company was likewise directed to furnish the union with information on job assignments and time values.²¹

Case situation No. 15. An unusual solution to this problem was worked out at a rubber products firm. It did not wish to furnish data on standards to the union for fear it would get into the hands of competitors. A compromise was reached which provided that copies of all standards and time studies were to be kept in a box in the shop to which there would be two keys, one to be retained by the union and the other by management.

Most union agreements set forth in more or less detail the procedural steps to be followed in the handling of grievances and indicate the responsible representatives. It should be repeated only that the foundation of all grievance procedure is the daily interchange in the shop between foreman and stewards or committeemen and that the temper and smoothness of bargaining relations depend greatly upon the competence and attitudes of these representatives. When grievances cannot be settled on this first level, it is rather common practice in many companies to carry them to regular meetings scheduled once a week or every two weeks between the shop or bargaining committee and the director of labor relations and any other management officials concerned with the issues at hand. It is increasingly the practice also to have the union submit grievances in written form. Despite these attempts at system and the enumeration in agreements of the successive steps procedure is

²⁰ See *Textile Labor*, January, 1942.

²¹ *Ibid.*, February, 1942.

to follow, informality seems to characterize the treatment of grievances in most establishments; the tendency of workers is to carry problems directly to the management officials they hold responsible or capable of making final decisions.'

Provision of special procedures and organization for union participation in incentive wage matters other than the ordinary bargaining arrangements is seldom found. Mention has been made of a few instances in which a particular union member, better equipped than others, has been delegated to represent the workers in connection with time study questions. Usually this does not involve special procedure as the special delegate simply participates in regular grievance negotiations. Exceptional procedure exists at two separate, small steel plants where the local unions are participating directly in the introduction of incentive systems and efficiency methods, the terms of their participation being the subject of special agreements. In one case several union members have been taken into the time study department to share in and keep tab on the job study and wage determination. In each case, the local may reject the experiment after a trial period. Occasionally special committees will be set up by a union or jointly between union and management to consider particular problems arising in connection with the operation of an incentive system. At a large electrical apparatus plant, in order to reduce the burden on the regular union-management grievance meetings the practice was instituted of having small joint subcommittees investigate and report on certain of the more complicated issues. In a number of cases special committees have been used in conjunction with work load and incentive rate disputes to make trips to competing plants or plants where comparable conditions existed and bring back to the local workers first-hand accounts of job assignments and rates.

Case situation No. 17. As has been stated in the case of the children's wear plant referred to on page 185, this procedure was used in meeting the opposition of the workers to the

installation of the line system. Both the union and the management agreed that one of the most effective measures taken to satisfy and disarm the opposition was the sending of a committee to a Pennsylvania plant where a similar installation had been completed. The Manager of the Joint Board of the union selected a committee made up of some of the most vocal malcontents. When they returned and reported that the new rates and quotas were working out at the other plant it did much to turn the tide.

This means of bringing home to workers the evidence of relevant conditions outside their own plant has proved effective in other cases as well. Its effectiveness underlines the fact that most unions make all too little effort to exchange information on individual experience and practice that could be of much wider benefit.

Unions do not rely solely upon general bargaining rights in protecting workers under incentive systems. They implement and supplement these rights by introducing into their agreements with employers concrete stipulations and guarantees directed at specific features of incentive wages and time study that have caused hardship to workers. The nature of these agreement provisions varies from plant to plant and in some cases local unions have succeeded in introducing quite detailed safeguards. The practices and controls which these safeguards represent are an essential part of the story of union participation; they will be discussed in connection with the pertinent union agreement provisions in the next chapter.

Union participation in other phases of job analysis. In many plants incentive wages are closely related to the job evaluation and wage classification phases of management activities. It is proper to inquire, therefore, to what extent unions participate in these phases also. It is obvious that the focus of union attention will always be on the determination of wage rates themselves and so far unions have seen little reason to extend their controls to the preliminary personnel work. There are some signs, however, that organized labor is showing increased

concern over certain of these aspects of wage administration as well, particularly those which have a bearing on the general wage structure. At the same time, it must be conceded that workers hardly take the technical, quantitative approach to these topics. It is easy to understand why a union executive committee finds it hard to engage in job evaluation, for instance, in a detached, scientific manner. For thoroughgoing job evaluation in most plants would result in considerable readjustment of the existing wage structure. Some of the adjustments would be rate cuts on individual jobs, a program in which a union must be very daring or very strong to participate. In addition, a union rarely can afford to buck the custom and tradition and jealousies which bulwark most existing occupational wage differentials or the political consequences which frequently follow from any disturbance of the old alignments. Most of the management officials interviewed were in agreement that it is well-nigh impossible to get a union committee to treat job rankings in an objective manner.

This is not to say that unions are not exerting an important influence on wage structures. Their primary objective has been uniformity of rates or wages for similar jobs and they have accomplished a good deal along this line. It has been done chiefly through individual plant negotiations but in a number of cases unions have succeeded in getting company-wide, city-wide, or even industry-wide classifications for the purpose of ironing out wage inequalities. It may be noted in this connection that union interest is not alone in wage equality but also in stabilization of competitive conditions. The flat glass industry is an outstanding example of industry-wide job and wage comparison and standardization achieved through negotiations between managements and union. The apparel industries, of course, have a long history of efforts at standardization and stabilization by the unions, but here in particular the interest has been in competitive conditions rather than the wage structure. Increasing union interest in job and wage classifi-

cation policies is apparent in the electrical, automobile, and steel industries. Another union objective which shows up in most of the cases in which a union has had some influence on wage schedules is a narrowing of the range between the high and low base rates. Wherever possible this compression of differentials is accomplished by raising the lower rates and reducing the number of wage classes within the range. In some shoe centers and on occasion in the clothing and hosiery industries, unions have negotiated flat increases or decreases in the over-all labor cost of the product. In such cases the union is in a position to adjust the wage structure quite independently by assigning a larger or smaller proportion of the wage change to jobs or occupations which are felt to be out of line.

In a small but increasing number of instances unions are being permitted a limited participation, in addition to that of grievance negotiation, in regard to wage classification. It takes such forms as making recommendations and reviewing management proposals. Workers bring to this function the important qualification of thorough knowledge of the jobs. However, the field visits disclosed only one plant in which a local union had shared as an equal partner with management in a comprehensive program of job evaluation using a standardized, technical point-rating system. This occurred in one department of a large Pittsburgh steel mill as an outgrowth of an incentive rate dispute. The joint action involving the union was inaugurated after an independent engineering firm had submitted findings which were unacceptable to both sides. Another example of union participation in a job evaluation program is described by Harold Bergen in a management periodical.²² The joint program grew out of a wage dispute which was taken before the National Defense Mediation Board. It was found that the confusion and frictions caused by numerous wage inequalities and a generally haphazard wage structure had to be cleared up before the other issues could

²² "Union Participation in Job Evaluation," *Personnel*, March, 1942.

be tackled. A careful and detailed job evaluation was undertaken with union committees taking full part. Mr. Bergen concluded from this experience that union participation in wage administration is perfectly feasible and he recommends it as a general practice which would greatly facilitate the negotiation of wage rates.

Having examined the variety of arrangements by which management and labor arrive at decisions on rates and standards and settle differences arising under incentive wage methods, it must still be said that there is no procedure of participation, no bargaining formula and, for that matter, no particular set of agreement guarantees that will in themselves insure a satisfactory solution of these problems. In the creation of good relations nothing will substitute for a cooperative attitude, equitable purposes, and a genuine effort to understand the opposing viewpoint in the approach of the negotiating parties. Labor has a responsibility for good relations but where incentive wage methods are concerned there can be little question that the major responsibility rests with management. Employers must first decide that they are going to live with unions and then begin to develop and infuse their entire management organizations with the necessary skill in human relations. There are no formal rules for the acquisition of this skill, and once acquired it dictates no set pattern of bargaining procedure. Often particular situations will call for special tactics and individual resourcefulness.

Case situation No. 30. In a flat glass plant a group of workers on an edging operation were dissatisfied with the incentive rates on a new job. Restudy was made by management with the same results, but still the workers could not believe that times were right and in the meantime they were not working and their foreman was getting frantic. The efficiency engineer suggested that the group select three of their number to test the rates by timing the rest of them. The company supplied the stop watches and gave as the only condition that the men had to work at their normal pace.

The results were the same as the previous timings and the workers were satisfied.

Another characteristic which reveals an understanding management in negotiations affecting incentive payment is a refusal to press an advantage and a willingness to grant the benefit of the doubt.

Case situation No. 2. In an electrical products plant, a girl on a coil winding job claimed that her standard was too tight at 40 coils. Management held that the standard was proper but agreed to make a change provided the union would agree to a return to the original standard if management's contention was proved right. After a few months the girl was doing 50 coils. However, management did not insist upon a return to the previous standard, but used the case effectively as an example in dealing with the Executive Board in other similar cases.

Case situation No. 36. Another good example is an automobile manufacturing company which has been conspicuously successful in continuing to operate on a piece work basis. One measure of the relationship which prevails is the fact that management is able to make an unconditional guarantee of piece rates. The personnel director admitted that occasionally management gets stuck with this guarantee as when a group of workers in the trim department held out with a very loose rate which enabled them to complete their work in 6 or 6½ hours. This situation was discussed with the union which admitted that the rate was loose, but the particular group would not yield so management attempted no further action. In general, the union cooperates in the voluntary adjustment of rates clearly out of line.

Where this type of management prevails the manner and extent of union participation will be determined principally by the union, and management will know how to interpret the desire of workers to share in management functions; this desire will be seen not as a threat but as a potential contribution to industrial stability.

CHAPTER VI

UNION AGREEMENT PROVISIONS

THE general attitudes and policies of organized labor toward incentive wages and time study methods have been discussed in earlier chapters. The present chapter is devoted primarily to describing and analyzing the more detailed practices, rights, and safeguards which unions have developed through collective bargaining to protect the interests of workers. The emphasis will be placed on the specific measures and devices which have been adopted by local unions in separate bargaining situations to implement general policies. There are certain standard safeguards and guarantees which almost all local unions seek to obtain, but, aside from these, local practices are as varied as the production processes, management methods, and economic conditions of the different plant situations in which they have developed. It is to be noted, therefore, that many of the safeguards to be discussed do not have general currency throughout manufacturing industry. In fact, in order to illustrate the diversity of practice, an effort has been made in this study to draw upon a wide variety of industrial relations experiences and to include a selection of unusual protective provisions.

Most of the rights and protections that are to be cited are incorporated in agreements between local unions and individual companies or plants. However, the fact that certain provisions do not appear in an agreement does not always mean that the workers involved do not have those protections. Several of the more common rights and guarantees frequently are observed by managements without formal expression in the agreement. Union officials are the first to acknowledge that an honest and liberal management is a better guarantee of fair dealing in incentive matters than any number of agreement declarations; the difficulty is that liberal management is not a permanent reliance. Sometimes, also, safeguards are found to be matters

of quite official but purely verbal agreement. Therefore, agreements which contain an unusual number of clauses relating to incentive payment and time study do not necessarily denote an unusually satisfactory incentive situation or an exceptional degree of union participation. They can be attributed occasionally to the persuasive convictions of a local leader, as at a motor truck plant where the union executive committee included a young worker who had taken a special interest in the piece work system. On the basis of his experience with the operation of piece work in his own department he worked out a series of protections for workers and restrictions on management and was able to insert them in the agreement, although there was no particular pressure for them from the workers, because management raised no objection. Nevertheless, the appearance in an agreement of a number of provisions attributable to incentive payment and time study can be taken, as a rule, as indication that such problems have been a subject of considerable union concern at that plant.

Besides illustrating the nature and development of union policies with regard to incentive wage methods on the local bargaining scene, this treatment of detailed agreement safeguards has an additional purpose and significance. In enumerating the defenses which labor has felt it necessary to erect it illuminates in similar detail the workers' case against incentive wages. In other words, it points out in a very concrete way the aspects of incentive payment which lead workers to feel insecure, the loopholes in these wage methods which permit unscrupulous managements to exploit workers, and the numerous ways in which ordinary industrial change can bring hardship upon workers who are paid on an incentive basis unless they are adequately protected.

Regulation of the method of payment. In plants where the system of wage payment has been the subject of dispute and negotiation the agreements often contain provisions specifying the form of payment that is to be used or stipulating the con-

ditions under which changes are to be made. Where local unions have been successful in eliminating incentive systems, as in the automobile industry, the agreements frequently contain restrictions against their recurrence.

The present premium system of the Company shall be abandoned and no premium or piece work system shall be substituted without the consent of both parties. (UAW—American Blower.)¹

Employers, for their part, may take similar steps to insure the retention of a particular wage plan. The employees of a rubber plant agreed to the following statement:

It is understood that nothing in this agreement shall conflict with the incentive plan now in effect and to be further installed. . . . The employees and the union will cooperate with the Company in the maintenance of such standards and the extension to and maintenance in other departments of the plan of labor measurement and time study employed by the Company. (URW—Electric Hose)

A millinery agreement contains this section on the system of work:

The system of work for cutters, operators, reslickers, steamers, refinishers and shipping clerks shall be by the week. During the straw season, however, piece work shall be permitted for operators on straw hats.

The system of work for milliners and trimmers shall be piece work as now prevailing, or week work upon the consent jointly of the Employer and the Workers employed on such branch of the work in the shop.

The system of work for blockers shall be piece work only. (UHCMW—Millinery Manufacturers)

¹ The Appendix contains a fuller identification of the agreements quoted in these pages.

Agreements in the New York clothing industry also provide for a uniform system of work for each craft in the member's shops. The standard dress industry clause providing for piece work reads:

For the purpose of creating a more general uniformity in and 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. (ILGWU—National Dress Manufacturers)

In occasional instances the whole issue of an incentive method is opened by agreement to review and negotiation by both parties.

The Company believes that an incentive system of compensation whereby an employee can increase his earnings if he wishes to is desirable, and agrees that such incentive systems are properly subjects for bargaining, and the Company is willing at any time, upon petition from any department, to appoint a committee to review such incentives with a Committee from the Union. (UAW—Clark Equipment)

In an automobile parts plant the following procedure is provided:

It is mutually agreed that should the workers in any department present a petition where a majority of the workers desire a change from piece work to straight day work, the Company and the Union will each appoint a committee of three men to jointly work out the details involved in making any change. Any proposal which such a committee works out shall be mutually acceptable to the Union and the Company before it becomes effective. (UAW—Timken)

However, in this particular case, a union representative explained that the presence of the clause in the agreement serves to reinforce the arguments of the local in negotiations of wage increases and other grievances and is not intended as a means to actual change in payment method.

One automobile company attempted to protect itself in case of changes in wage method in the following manner:

Any change from an incentive to an hourly rate method must be made on a sound and equitable basis which does not increase average production cost and which provides for maintaining efficiency. (UAW—General Motors)

Another type of incentive system change is provided for in a flat glass industry agreement:

Whenever mutually regarded as desirable and practical, units working under any incentive system may be changed to or from either group or individual type of bonus, as may be determined after fair consideration. (FGCSSW—Pittsburgh Plate Glass)

Protection of bargaining rights: incentive rates and standards. Incentive rates, standards, and methods are frequently included among the conditions of employment which union agreements list as being subject to grievance proceedings. Even when they are not specifically enumerated it is implicit in the grievance clauses of practically all agreements that such matters are proper subjects for grievance action. As has been noted in the preceding chapter this often proves itself the basic right of unions in terms of achieving effective results. For many unions, however, this general right to seek readjustment of an unsatisfactory incentive rate or time standard through grievance proceedings is not sufficient. They want a more definite bargaining right—either the specific right of joint determination or the right to negotiate in advance all new incentive rates and all changes in such rates. The right of joint participation is clearly recognized in the agreements and industrial relations practices of large sections of the clothing, millinery, hosiery, and shoe industries and in some cases the procedure by which the right is to be realized is also set forth in some detail in the agreements. The lengthy and detailed clauses from the New York City dress agreement which were quoted

in the previous chapter are an example of the type which outline the procedure to be followed in joint settlement. The price adjustment clause from a millinery agreement is somewhat similar:

All piece prices shall be adjusted and agreed upon between the Employer or his representative and the Price Committee representing each craft as provided above. All price conferences between the Employer or his representative and the Price Committee shall be held at least once a week at a specified time outside of regular working hours, unless the time is extended by mutual agreement. In the event a price is agreed upon, such price shall be binding and final on the Employer and the employees. In the event that they are unable to agree upon a mutually satisfactory price, the Union representative shall be called upon to adjust same with the Employer or his representative. (UHCMW—Midwestern Millinery)

The provision in the men's clothing agreement in the same city is very brief:

The Manufacturer shall have an equal voice with the Union in fixing the price of each operation provided the total labor cost of the garment has been previously agreed upon between the Manufacturer and the Union. (ACWA—N. Y. Clothing Manufacturers)

The clause which occurs in a number of shoe industry agreements is also brief:

All prices shall be settled between the representatives of the Firm and the Business Agent. (USW—Janice Shoe Co.)

The right of advance participation is not nearly so common in other manufacturing industries and where it is provided is not so clearly stated. Agreements covering a majority of the workers in the flat glass industry state:

Before new bonus values or changes affecting the earning capacity of an employee or group are put into effect, the

matter shall be discussed with their representative, their shop foreman and the head incentive official in the plant, and upon any failure on their part to reach a mutually satisfactory agreement, the matter shall be referred to the Industrial Relations Committee for settlement with the plant management. (FGCSSW—Pittsburgh Plate Glass)

A similar clause occurs in the agreement at a large rubber plant:

All other new or revised standards shall become effective at the expiration of 20 hours after being posted, provided, however, that upon request of the Departmental Committeeman, such new or revised standards shall, prior to becoming effective, be discussed for the purpose of clarification. (URW—Goodrich)

Other agreements may contain no more than the simple provision:

Premium and piece work rates shall not be changed except by mutual consent of the company and the union. (Typical clause)

or the following sentence from a radio parts plant agreement:

When a permanent rate is set it shall be initialled okay by the Foreman of the Department and the Department Union Committeeman. (UERMW—P. R. Mallory)

These types of clauses obviously go less far than those quoted from apparel agreements. Instead of joint rate settlement they grant bargaining rights only. In many individual plants in all the heavy manufacturing industries there are corresponding agreement provisions requiring management to submit incentive rates for advance union approval or negotiation. They seem to confer definite participation rights, but in most cases it would be found that the parties have disagreed on interpretation. Is joint determination or agreement on actual rates and standards required or is management obliged only to hear

and discuss worker objections and counter-proposals and then use its discretion in reaching final decision? How long is management obliged to withhold rates for purposes of clarification and negotiation? What actually happens in specific instances depends upon how strongly the union feels about a given rate or standard issue and in general upon the confidence each party has in the good faith of the other.

Less definite still in the bargaining rights which it confers is the blanket type of clause similar to the one inserted in many textile industry agreements.

Any change in methods of production, wage rates, work load, changes from one operation to another, or fixing of prices for new piece rates shall be made only through collective bargaining between the representatives of both parties hereto. (TWUA—Hart & Foster)

One of the questions that arises under such a provision is, How substantial and extensive must a change be to come within its terms? Again there is no indication of the degree of compulsion upon the employer to accept union proposals. In practice, clauses like this have meaning only when the union has real bargaining strength and evidences a desire to share in the determination of rates and work loads. Sometimes a contract will provide that only certain types of rate decisions are subject to negotiation. For instance, at one machine tool plant the agreement reads :

No reductions of rates are to be put in force except with the consent of the department foreman, the time study man, and the authorized union representative. (IAM — Chicago Pneumatic)

When they cannot secure the right of advance negotiation, unions often try to insure that they will be notified of new or revised rates so that they can raise objections in advance. This is the intent of agreement provisions like the following :

When permanent changes are contemplated in working conditions, changes in personnel and reduction of crews, and changes in method of wage payment or changes in wage rates, the General Grievance Committeeman will be notified in advance. (Typical clause)

Departmental representatives shall be notified of all changes in standards before coming effective, and shall be given reason for changes. (URW—Gillette Tire)

New rates must be posted first for 48 hours. (URW—Quaker Rubber)

One rubber plant management representative frankly confessed that one reason his company does not withhold new rates for negotiation at the union request even though it gives advance notice is that one shift may complain that the rate is too tight, but if the rate is applied and the next shift is not forewarned and prepared it may contradict the first shift by making out on the job.

Employers in the more recently unionized industries are loath to commit themselves by agreement to the point of having to secure union approval of all new or revised rates, so they frequently add certain precautionary or qualifying phrases or sentences to such requirements. They particularly dislike negotiating over new rates before the workers have even tried the jobs. They point out that the first rate proposals on new production items or on new machines are always likely to seem low to the workers until by actual work experience they gain the skill and acquire the new operating rhythm. Therefore, employers try to insist that rates be given a reasonable trial and waiting periods are fairly common in connection with new jobs. It is the practice in the auto and machine tool industries where piece work is in effect to set piece rates only after production has been under way for periods ranging from a few hours to several weeks. One rubber company agrees to notify union representatives of new rates and to post them 24 hours in advance, but it stipulates that these rates go into effect as temporary rates

for 10 days during which time the employees agree to work efficiently; then, if the rate is held to be too low an adjustment will be negotiated. The flat glass agreements mentioned previously which provide for prior negotiation of new and revised bonus values also state:

After reasonable trial, bonus standards can be opened for discussion and possible change in accordance with grievance procedure. (FGCSSW—Pittsburgh Plate Glass)

Several textile agreements contain clauses similar to the following:

The employer shall have the right to a trial period for the introduction of new methods of work or work load. (TWUA—Imperial Rayon)

Employers who grant negotiation privileges in connection with incentive rates are at times troubled by the tendency of workers to stall the introduction of new or revised rates by prolonging the negotiation proceedings. At a large rubber plant the union had the right of advance clarification of a new rate or standard, workers to be guaranteed 95% of previous earnings prior to agreement on standards for new jobs. The president of the local freely admitted that for this plant this was carrying the policy of protection too far and that it was leading to an undue amount of stalling by the workers. He reported that some of the workers he would have suspected least allowed their output to fall as low as 40 B's an hour (in contrast to a normal of around 85 B's) while under the 95% guarantee. He remarked that this was one evidence of the need for incentive wages. The local union was prepared to accede to the management request that the guarantee be reduced to 90% of previous earnings and that the period of advance clarification be limited to a specified term of days.

Some employers seek to secure a margin of free decision for themselves by confining negotiation to major or substantial changes in rates and standards. A large rubber plant accomplished this through the following provision:

All new or revised labor standards previously approved by the union or which differ by not more than 8% from the standards which they supersede; shall become effective immediately upon being posted. (URW—Goodrich)

A corresponding limitation occurs in another rubber plant agreement:

Temporary rates covering changes constituting a maximum of 10% of the whole operation shall, after a time study has been made on the new operation, become effective after being posted one working day. (URW—General Tire)

Other employers try to limit the frequency of negotiations of wages and standard questions. A shoe industry agreement contains this limitation:

Time rates and piece rates now in effect shall continue without change until (date). (USW—Shoe Manufacturers)

In a cotton mill:

Either party to this agreement may after 60 days from the date of the same re-open the question as to wages, work assignments or hours of work. (TWUA—Profile Mills)

Another southern textile firm has obtained the union's agreement to make no demand for change or arbitration of rates for six months after an arbitration.

In the main, unions strive for the same rights of bargaining and participation whether their chief concern is incentive rates or standards of production. In fact, some of the agreement provisions noted above applied to both. The point is that in most industries where incentive wages are employed, unions have made wage rates the issue rather than work standards and the wording of agreements reflects this emphasis. It is primarily in the textile industry where work loads are uppermost as a problem that they are dealt with in agreements, and, of course, in plants using time wages where enforcement of production standards makes them an issue.

Protection of bargaining rights: time study. Unions want definite, contractually established rights with respect not only to the negotiation of incentive wage and work load questions; they want to be assured also that they may have a voice in the methods employed in arriving at these rates and standards. Most unions have the implicit right anyway to air grievances and dissatisfactions relating to management time study activities through ordinary grievance channels, but many unions desire more specifically enumerated privileges.

The types of participation in time study called for by union agreements vary greatly from plant to plant. Constant and direct union participation in all the time study activities within a given plant does not occur except in a few special situations where union representatives have been put on time study staffs or where the union is cooperating in the introduction or reorganization of an incentive scheme. Most of these instances involve small or moderate sized plants. The following clause providing for training union time study representatives is quite exceptional:

In order to facilitate equitable and harmonious adjustment of grievances arising out of the establishment and application of piece rates, the Company agrees to train two competent representatives chosen by the Union as to its methods of setting and applying piece rates. It is the purpose of the Company in training such delegated members to provide the Union with representatives who thoroughly understand and who will be available for the proper adjustment of grievances arising out of piece rate operations . . . Union agrees to provide the needed textbooks and other equipment . . . The Company agrees to compensate the two chosen employees for time lost from work while taking practical instructions two half-days per week for three months in the production department.
(URW—Continental Rubber)

A slightly different arrangement was worked out in a southern textile mill to achieve a similar purpose:

The Company and the Union both recognize the necessity for proper and just work assignments, and to aid in the establishment and maintenance of such work assignments and to facilitate the settlement of any controversy relating thereto, the Union agrees to assign one of its members employed by the Company and possessing proper qualifications, and acceptable to the management, to work with the Company's engineer and to assist him in getting the work measurement of jobs in the several departments of the mill. (TWUA — Highland Mills)

One textile plant was visited at which the union keeps a very close check on management time study activities, although the agreement contains only the general statement :

Time studies may be reviewed by the Union committee. (TWUA—Bigelow-Sanford)

Another indefinite sort of provision is one which occurs in a rubber plant agreement :

Proposed studies and results of time studies and other matters of mutual interest will be explained to and discussed with the chief steward before being put into effect. (URW—Ball-Band)

Agreements which permit union representatives to take actual part in retimings or to share in the determination of rates in disputed cases are more common. At one automobile company it is arranged that :

Whenever the company and the employees cannot agree on the time allowed for the operation, the company and the union shall time the job together. (UAW—Willys-Overland)

Or an agreement may state simply that :

Any revision of rates resulting from restudies will not be made effective until mutually agreed upon between the Management and the Union officials. (URW—Continental)

Management representatives contend that it has been fairly standard practice in most industrial enterprises to restudy jobs in disputed cases whether or not the plants are unionized or have specific agreement clauses to this effect and that disputed rates have usually been subject to negotiations as well.

Occasionally the manner of a union's participation in regard to time study or a retiming is defined in greater detail in the agreement. A minor example is seen in the wording used in a rubber plant agreement:

When a rate or a time study is protested, the union officials shall be given an opportunity to review the time study sheet when a request is made. (URW—Continental)

In the textile industry where the union is developing a policy of technical investigation and arbitration of disputes, provisions resembling the following clauses are beginning to appear in agreements:

Any grievance or dispute concerning work loads, job assignments or rates of pay shall be adjusted and settled in the following manner:

a. The Company shall make appropriate studies of the jobs to determine a fair work assignment for its employees and adequate compensation, said proposals and studies to be submitted to the union.

b. If after a fair trial period of four weeks the Union contends that the work assignments are unreasonable or compensation inadequate, the Company agrees that a competent and experienced technical representative of the Union shall review the work assignments and study same in the plant and the Company and the Union shall attempt to agree upon a fair work assignment and compensation. (TWUA—Highland Mills)

In the durable goods industries union representatives are sometimes granted the specific right to witness the restudy of a job or to accompany a time study man in the investigation of a

grievance. A major auto agreement establishes the following procedure when a foreman is unable to settle a dispute over a job or rate of production:

If any employee claims that the standard established for his work is unreasonable and the foreman is unable to adjust the matter, the job will be restudied and if the standard is incorrect it will be revised. If after the job has been restudied the employee still protests the standard, the committeeman for that district may upon reporting to the foreman of the department involved, examine the job in order to negotiate the complaint and the foreman and/or the time study man will explain all the facts of the case to the committeeman. If there is still a dispute after the committeeman has completed his examination, the foreman or the time study man will then reexamine the operations in detail with the committeeman on the job. Should a satisfactory adjustment not result, the matter in dispute may be appealed through the Grievance Procedure. (UERMWA—General Motors, National Agreement)

In a rubber plant, where changes in product are frequent, the union secured the following privilege:

Employees shall be allowed to examine the standards set up on piece work rates to ascertain that all necessary operations have been included. (URW—Ace Rubber)

Several agreements require that the steward or shop committee shall cooperate with the proper management representative in selecting the operators to be timed for all time studies or for restudies. The agreement covering one shoe manufacturing center states simply:

The worker chosen shall be satisfactory to both parties. (USW—Shoe Manufacturers)

In extending these bargaining and participation privileges to unions some employers have felt it necessary to introduce certain safeguards of their own rights into agreements. A southern

textile manufacturer agrees to discuss disputed work loads with the union, but counters with this reservation:

It is mutually agreed that determination of the work assignments is a task for the management of the mill. (TWUA—Edna Mills)

In another textile firm the union agrees that:

The employer shall have the right to require recording of time by operations, either by use of time clocks or otherwise, and of making time studies for the purpose of setting cost standards. (TWUA—Hellwig Dyeing)

A considerable number of employers require the unions in their plants to recognize by agreement their right to use time study methods. In one small steel firm the time study issue is put squarely up to the Union in these words:

The present time study system shall be eliminated if at any time the union can prove that it is not workable. (USA—Standard Gas Equipment)

A few employers have also made sure that their own right to retime jobs would not be restricted; thus one agreement states:

The company shall have the right to retime a job when changes in material, design, tools or sequence of operations have been made. (UAW—AFL—Eaton Manufacturing)

An auto parts manufacturer added this qualification to the union's right to ask for a retiming:

Provided that any operation on which 110 B hour or better has been consistently earned shall not be subject for a request for increase in standard unless a change in the operation has decreased the employees' earnings. (UAW—Auto-Lite)²

Earnings safeguards. In addition to the rights of invoking grievance procedures, of negotiation, and of participation which

² At this plant a 125 B hour is the expected level of performance.

have been discussed thus far, it is customary for unions confronted with incentive problems to introduce into agreements one or more of a wide assortment of specific safeguards. These are usually in the nature of detailed prescriptions or requirements upon management, designed to protect the workers from hardships they might otherwise suffer under incentive systems and methods.

Considering the principal reasons for worker dissatisfaction with incentive forms of payment it is only natural that the primary aim of most of these protections is the prevention of loss of earnings and the maintenance of as high earning standards as possible. Probably the most common protection is a guarantee against rate cuts and any other unwarranted changes in rates or standards. This may be expressed in many different ways. Often it is a flat prohibition:

The rates of pay specified in this agreement shall not be reduced during the life of this agreement. (Typical clause)

Piece work prices are guaranteed for the life of the job. (UAW—White Motor)

Piece rates once established, shall not be reduced. (Typical clause)

Such clauses are almost invariably qualified at the insistence of employers by the statement of conditions under which reductions and changes can be made. These conditions may be indicated in general as "changes in material, methods, or operations" or the production and process changes that justify rate revisions may be listed in greater detail. Instead of the outright prohibition and the specified exceptions, unions frequently achieve the same purpose by such a provision as:

Premium and piece work rates shall not be changed except by mutual consent of the company and the union. (Typical clause)

Employers tend to feel that the restrictions which unions seek to impose on rate and standard changes are too inflexible and operate to the disadvantage of firms that need to make continuous changes to meet competition. Some managements have attempted to guarantee themselves a measure of free decision in this matter by inserting statements affirming their right to adjust rates under given conditions. For instance, a steel company agreement reads :

Where changes of equipment, process, materials, routine of duties, or production requirements cause wage rates to become obsolete, new rates may be introduced by the corporation, provided such changes shall not be made effective until after conference with the designated grievance committee. (USA —Wheeling Steel)

However, the interpretation and negotiation of the various conditions which are supposed to justify rate changes have been the cause of considerable conflict. When is a methods change substantial enough to justify a rate change? When do changes in various elements of an operation constitute an actual change in rates? When is a rate change substantial enough to require negotiation? When is a new rate in reality a revision of an old rate? These are the kinds of questions which precipitate many disputes and occupy much of the bargaining time in plants where workers are dissatisfied with incentive payment. These are questions which contractual language cannot settle.

Unions are especially on guard against rate reductions which may be effected under the guise of, or in connection with, legitimate rate revisions. They are most likely to occur in plants which manufacture many separate but similar items or whose products are subject to frequent constructional changes, or in which production processes change frequently. For it is in such plants that one worker may work on many slightly differing jobs or that elements in jobs change a good deal without requiring restudy as entirely new jobs or that job changes require

frequent revision of rates. Workers charge that often in dynamic rate situations like this managements introduce slight but unnecessary changes or apparent but not actual changes in products, methods, or processes as pretexts for reducing rates. Union officials can recite numerous grievance cases in illustration. One case which demonstrates how a small change can generate controversy and also that important consequences may be at stake arose in connection with the incentive standards on a golf ball which a large rubber products firm was producing on contract. Management changed the width of the rubber band wrapping used on the ball and on this basis justified a restudy of the whole operation and a revision of standard. The union protested, checked management's study, and came out with different answers. After long argument, among other things about the stretching quality of the band and the effort factor, the union won an increase in the standard. Whereupon the company lost the contract for the golf ball. The president of the local stated that if the company had not used what the workers considered subterfuge to gain its purposes, the union would have been willing to take a lower standard. As it was it was fighting for a principle.

A specific problem of this type that one union had to meet is indicated by an agreement provision at a large auto parts plant :

It is further understood that a change in part number only does not warrant a change in standard. (UAW—Auto-Lite)

In other cases the union feels that even where changes in rates are justified by some change in operations, managements are tempted to make a more than proportionate reduction in rates. A few unions have expressly guarded against this form of rate cutting in their agreements. Thus a rubber plant agreement requires that :

Adjustment in rates because of operation changes will be commensurate with the changes in operations. (URW—Seiberling)

Other indirect methods of evading rate guarantees are the management policies of shifting work to lower paid operators and "diluting" skilled jobs by breaking them up into separate and simpler operations. During the war period of skilled labor shortage unions have little means of withstanding or controlling this process.

A common cause of disagreement and worker resentment are rate reductions which managements make or propose in order to correct what they consider "loose rates" or rates that are "out of line." This is an issue which brings out sharply the contrasting viewpoints of employer and worker. Most union leaders will admit that there are some loose rates in their plants; in one plant the descriptive term "slipperedge" was coined to apply to such jobs. Their position on adjustments is that the few loose rates are not important enough to affect production costs, that they are more than offset by the tight rates which are always present, and that some loose rates are necessary to keep the workers satisfied with the incentive system. For its part, management fears that the existence of some loose rates will be made the excuse for securing more of them. An auto parts company sought to restrict this occurrence by contractual safeguard:

It is also understood that just because a few employees have rates in excess of their classification rates others are not entitled to similar rates. (UAW—Bantam Bearings)

Where a union consents to adjustments it insists, if possible, that the money saved be distributed on low rates. At several of the plants which were visited the local unions had cooperated with management in deciding what rates were most out of line and in working out adjustments. Provision for adjustments of this kind is found in some agreements, the rule in one rubber firm being:

Rates found over or under the departmental piece work average shall be altered to conform to the average. (URW—Baldwin Rubber)

In a department of a large auto parts works the existence of loose rates was closely bound up with the problem of output restriction. Both company and union recognized this interrelation and agreed upon the following program of correction:

It is recognized that certain prices have been rated so that the tendency has been to restrict production and that certain jobs are rated so that it is difficult for the operator to make hammer rate. The company will prepare a list of jobs on which they feel production has been restricted and the union will prepare a list of jobs they consider low and these jobs will be studied on the basis of new rates and when agreed upon by the Standards Department and the committee will be guaranteed together with jobs not restudied during the life of this agreement. It is agreed the union committee will cooperate in equalizing these disputed rates. It is further agreed that knowing the vital need of production from our equipment the union will not sanction or condone the restriction of maximum output. (UAW—Timken)

But these are not typical situations. The unions are apt rather to dispute management contentions that rates are loose or to feel that to endorse a program of revisions would arouse too much dissatisfaction within the membership.

Restriction of production has been discussed in a previous chapter as a general union policy relating to incentive wage methods. It need be repeated here only that one of the motives workers have for restricting their output is protection of existing earning standards against future rate cuts. An unusual clause dealing with specific aspects of the restriction question appears in the agreement of an auto parts company:

The Company will not tolerate and will actively discourage any races between exceptional employees to a stage known as "pace-setting" or "speed-up," whether among individual employees, groups of employees or separate shifts and the Union will not tolerate any inefficiency and "stalling" on the job by the employees of the Company. (UAW—Ainsworth)

In a relatively few cases unions or managements have written into agreements specific safeguards in the form of top limits on production or incentive earnings. In a large rubber plant:

Whenever an employee or group of employees work at a production speed in excess of a 90-B hour the standard or standards shall be investigated. (URW—Goodrich)

In an automobile plant:

Any job run 10% above base rate may be proportionately reduced with the approval of the Executive Committee. (UAW—Willys-Overland)

These are discretionary rather than mandatory limits and many unions, of course, maintain such limits without any agreement provision.

From another point of view these definite production or earnings limits may be regarded not as limits on workers but as restrictions on rate cutting by management. For they naturally have the secondary effect of protective coverings which guarantee workers in producing up to the designated limits. At an auto body plant:

Employees working on piece work shall be allowed a 15% over-earning. (UAW-AFL—City Auto Stamping)

At one of the machine tool plants visited the union had inserted such a clause in the agreement for the latter purpose alone:

If a job is high, it cannot be cut until it exceeds 100 minutes on classification. (IAM—Chicago Pneumatic Tool)

Job performance in this plant is expressed in a standard unit of measurement, called minutes. Theoretically, average performance on a job would amount to 60 minutes in an hour's time, but better workers would be expected to produce more than 60 minutes an hour. This clause means, therefore, that if a job standard becomes loose for some reason the workers are protected from a cut in the rate on the job until their production

exceeds 100 minutes an hour. The workers at this plant made it clear that the 100 minute limit was not written into the agreement to implement a policy of restriction but as a permissive goal. Without it they would not know at what point they might be cut; with it they feel protected. The Shop Steward revealed that the limit used to be much lower—60 minutes—but in 1936 when the union asked for a wage raise the firm said it could not give one but would permit the men to increase their production and incentive earnings up to an 80 minute level. The Steward described this change as partly a loosening of rates by management and partly increased personal efficiency on the part of the workers. In 1940 the union requested another raise; instead the limit was written into the agreement at 100 minutes of work per hour, a rather high level of efficiency. However, the workers did not really act on this extension for some months until the firm, flooded with defense work, asked for more production. The Steward then secured another pledge from management that the protective limit would be observed, whereupon it was put up to the men and production increased markedly. The men reported that management was not checking up particularly on jobs on which workers were able to exceed 100 minutes to the hour; it was glad to get all possible production. However, the men also stated that they know management is keeping a record of all jobs on which performance goes over 100 minutes and there will be a day of reckoning. In other words, they feel that they are now prejudicing many future rates.

On the basis of the situations investigated in the course of the field study it may be concluded that a measure of controversy over the accuracy and fairness of rates and standards which have been in effect over any period of time is inevitable. The most scrupulous management cannot stand still technically and technical advance alone is bound to raise the rate question in some form. Many local union officers are willing to admit that workers are prone to confuse an increase in the volume of work they turn out with an increase in the effort required of them,

but managements have difficulty convincing workers of the difference. A very few have attempted to support the distinction by way of agreement provisions. A textile agreement says:

“Work load” however, is not to be interpreted as covering the speed at which various yarns are required to run. (TWUA—Clifton Mills)

Another phrases it:

Machine adjustments necessary to processing stock in accordance with mill or customer requirements, or adjustments which may be made to improve the running of the work shall in no case be deemed a work load change. (TWUA—American Thread)

The management of a small steel firm was attempting to meet the same kind of problem when it secured the insertion of this statement in its agreement:

It is understood and agreed that piece work and /or tonnage rates now in effect are not inherent in the product but in the method of production. (USA—Symington-Gould)

Only one agreement was found in which differential earnings were recognized as a matter of right for experienced, skilled workers on restudied jobs. This right was secured by the machinists in a moderate-sized automotive products plant. Thus, in effect, official sanction was given what might be termed loose standards for a restricted group of workers of proved skill. The agreement gives the company the right to retime jobs where changes in tools, methods, etc., have reduced operating time, but it then directs that:

Rates will be set so that the employee will be able to earn his standard time plan rate plus 15% or more of the allowed time. (Allowed time is the time shown on the corrected time study before the incentive is applied.) (IAM—Waukesha Motor)

This means that while rates on new jobs are set initially to yield 25% over base rates, all rates on going jobs that are re-set for experienced workers must give them 40% over base rates. This is a clear recognition that experienced workers acquire a vested interest in the skill and aptitude they develop on any job at which they have worked for a while. The union won this provision in a strike which was the culmination of long dissatisfaction with the incentive situation at this plant and with the alleged company practice of taking from the workers their personal increases in efficiency. A plant official stated that the trouble with the special guarantee was that while it was intended as a protection of acquired skill and experience all the workers tried to get it from the start.

A requirement that may in practice accomplish the same purpose as the above provision occurs in a few agreements. It is a guarantee of previous earnings in case of rate changes or new rates. An example is the clause in the agreement of a small metal fabricating shop:

In setting piece rates on new operations or jobs, the company will set the new rate so the operator will be able to make at least the average of his hourly earnings during the past month. When piece rates are introduced in departments never having had piece work the company will set new piece rates so that an operator will receive at least 15% more than his past average hourly rates. (IAM—Cleveland Heater)

A significant extension of the previous earnings principle has been written into the agreement at a tire and rubber plant which has been the scene of considerable conflict over management policies on revision of standards and job study methods:

Future rates due to any changes in methods, operations, materials, equipment, etc. shall be so established as to conform in effort and earnings to the present rates. New rates will include skill acquired by operators. It is agreed that time allowed for machine limitation may be utilized. Company and union representatives shall agree on all new standard practices

before rates are determined in order to eliminate, if possible, controversy on new rates. A list of the accepted standard elements now in effect will be made as part of this contract. The rates on new elements will be added by negotiation. (URW—General Tire)

This set of guiding rules is very revealing of the type of difficulty that has beset the workers in this plant. By requiring that not only previous earnings but effort and the acquired skill of workers be taken into account in setting new rates and by requiring that all standard practices shall be agreed upon in advance this union is trying to forestall the kind of standards change which has long disturbed rubber workers and which they still call "speed-up." One automobile company committed itself so far on new rates as to make the outright guarantee:

Piece work rates per man on new jobs shall not be less than rates per man on similar operations on the previous model. (UAW—Studebaker)

The personnel director explained that this clause was inserted by the union as a protection against rate reductions management might try to effect by shifting jobs between departments and giving them to lower classified operators. He admitted that it penalizes the company somewhat in connection with slight engineering improvements for which it cannot adjust rates, but, on the whole, the local union has been cooperative in permitting correction of rates far out of line.

The danger in granting guarantees of this nature and the reason most employers refuse to grant them is that they tend to perpetuate and freeze loose rates. A slight change in conditions or method might occur which would enable a worker to run away with a rate and establish an excessive earnings average which would then have to be met and maintained by management on the next job given him. One district union officer admitted that such provisions were subject to abuse and that workers in a couple of machine shops in his district had taken

advantage of these guarantees to such an extent that the business of the shops had declined seriously. However, he pointed out that because of their obvious potentialities for making incentive plans unprofitable such clauses can be potent weapons in the campaign to eliminate incentive methods.

Similar to the above measures for protecting and maintaining incentive earnings is another type of agreement provision which seems to be gaining increasing vogue with unions. This is in the form of a commitment upon management to set and maintain incentive rates that will assure the average worker a definite rate of earnings; this rate is typically stated as a certain percentage over base rates. It has always been incentive practice, in any case, to figure on a 15%, 20%, 25% or similar differential between base rates and actual earnings, the percentage used depending upon the incentive plan being applied and also upon the level at which base rates happen to get set. Union effort has been directed toward getting a definite management commitment as to the size of the margin and compelling it to guarantee those earnings to as many workers as possible. This clause from a rubber plant agreement is typical:

No piece rate is to be set upon which the earnings of an employee based on normal production shall be less than 20% above the minimum guaranteed rate. (URW— Quaker Rubber)

The corresponding provision which applies in a machine products plant reads:

Incentive plan workers who are qualified will be guaranteed a 15% bonus over their day rates on a weekly basis. (UAW—Bantam Bearings)

A simpler but less common type of provision is one from a small steel company agreement:

Where it is proven that any piece work employee has been unable to make a reasonable day's wage through no fault of

his own he shall be paid at least his average daily earning.
(USA—U. S. Sanitary Manufacturing)

The objection raised most frequently by employers to obligations of this type is that once a specific earning rate is written into an agreement, the union quickly comes to regard it more as an absolute guarantee than as what it was intended to be—a guiding principle. A common example of the way in which this tendency operates may be cited from the grievance records of a local union in the flat glass industry. The inspectors on a wareroom line charged that their bonus earnings were averaging less than 25% of base rates and requested an adjustment to enable them to earn the expected 30%. Management requested a further two weeks trial of the rate. Two weeks later the management notified the union that since the earnings of these men had not averaged 30% bonus a rate adjustment would be made. To the extent that expected earnings are guaranteed to all incentive workers the basic idea of reward conditioned on production is violated. Many union officials are quite aware of this and one of the reasons they have pressed for such provisions is to compensate for what they consider to be the inequities of that incentive principle. Employers try to restrict the application of the guarantees to "average" or "qualified" workers or to circumstances of "normal production," and so on. One auto parts firm makes its obligation even more guarded by stating:

- Standards shall be so set that an experienced operator who has consistently run 110-B hour or over can make his usual B hour by giving his full normal time to the job. (UAW—Auto-Lite)

However, the qualifying language used by employers is always subject to conflicting interpretation when it comes down to particular cases.

Thus far discussion has been centered on the ways in which unions protect worker earnings by placing restrictions on the cutting of incentive rates and standards and by regulating the

conditions under which changes may take place and which must guide the setting of new rates. These are the most crucial safeguards but there are many others. An obvious and very common protection is the establishment of a guaranteed minimum wage below which the earnings of no incentive workers can fall. However, this cannot be considered primarily a union achievement, for a general factory minimum hourly rate prevails in a great many plants whether an incentive system is in force or not, and in addition, a guaranteed minimum is a regular part of the incentive methods used by many employers. Apart from local management policy, of course, the Fair Labor Standards Act and various state minimum wage laws also put a floor under incentive plan earnings in many industries. Nevertheless, unions have given a good deal of attention to incorporating these minimum guarantees in agreements and to getting them raised. The guarantees may be stated in many different ways and the rates involved may be computed in several ways. The following are typical clauses drawn from agreements in different industries:

The company guarantees base rates under the incentive system.

If an employee's piece work earnings amount to less than he would have earned at his hourly rate for any one day, he shall be paid on a basis of his hourly rate for that day.

The guaranteed rate for all production employees shall be 85% of the average of the previous two week's hourly earnings.

In industries like textiles and clothing which are characterized by severe labor cost competition, the unions are faced with a different problem in regard to rate protections and minimum guarantees. There is less emphasis in union policy on protecting the earnings of workers as a group. Extremely wide variations in the earnings of piece workers is characteristic and is accepted as proper, and frequently the only floor under earnings is that

established under the Fair Labor Standards Act. The millinery union in one city was found even to be cooperating with employers in gaining exemption from wage-hour requirements for certain of its members in order that they might not lose their jobs. On the other hand, many agreements in these industries do contain either flat guarantees or provisions designed to protect the earnings of "average workers" at least. The agreements covering many of the larger clothing centers contain minimum wage provisions. The following is from the dress industry:

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

Operators	\$.75 per hour
Pressers85 per hour

(ILGWU—National Dress Manufacturers)

A city-wide shoe industry agreement specifically enumerates the rate of pay that is to guide rate setting:

Where timing is required, it is agreed that 90c is the standard rate of pay per hour for major skilled operations by workers of average speed, efficiency, and ability. A departure from the 90c timing rate shall be made when such is required in fairness to both parties. (USW—Shoe Manufacturers)

An agreement from the millinery industry also lacks a general minimum but seeks instead to enforce certain average earnings:

It is agreed that the Employer shall pay the members of the Union in its employ the following basic rates for an average worker:

Cutters	\$40.00 per week
Operators91 per hour
Trimmers and Makers64 per hour
Blockers	1.18 per hour

In fixing piece work rates the same shall be computed on a basis to yield the average worker of the various crafts for each hour of continuous work, the amounts shown above. An average worker referred to above shall be agreed upon by and between the Employer and employees. (UHCMW—Midwestern Millinery)

Even where agreements do not specifically enumerate earning rates union officials admit that there are fairly definite average earnings levels which ordinary good workers expect to obtain. Whether or not an actual rate is mentioned in an agreement the interpretation of such rules cannot be precise and proceeds largely according to usage. There is no arbitrary requirement that half the workers in a shop should make the indicated earnings. It depends upon the composition of the group and the season and the product. But if the individuals who by general consensus should make certain earnings fail to do so negotiation and adjustment will be in order.

An interesting scheme designed to assure a given level of earnings or better to piece workers is used in a few instances. In a New England textile center the agreement, which is an association contract covering a number of mills, provides that in each mill:

Piece rates shall be such as to enable 60% of all piece rate workers on the same type of work to earn the base pay on full jobs.³ (New Bedford Textile Council)

Under this clause when it is found that fewer than 60% of the workers in a plant are making the stipulated earnings in a week the employer must pay "make up" in the form of a sufficient upward adjustment in the pay of all workers. It is up to the union to police the arrangement. The proportion, 60%, is a figure determined through negotiation and presumably is subject to change in the same way. A similar arrangement is set up by agreement in a mid-western women's garment shop.

³ "Full jobs" means uninterrupted production for the requisite number of hours.

Another way in which the level of incentive earnings within a given plant may be protected is to require that it be comparable to the level prevailing in other similar plants. This is, of course, a common principle employed by unions in wage negotiations, and it can be used also by employers to guard against excessive labor costs. However, it is not often enunciated in agreements in detail. A southern textile mill is committed by its agreement to maintain

an over-all hourly wage rate 5% above the average over-all hourly wage rates paid in comparable and competitive mills. (TWUA—Columbia Mills)

A northern textile agreement provides:

Wages and rates of pay shall be the subject of negotiation and shall be based on average hourly earnings of employees of the corresponding class in similar mills in the industry manufacturing like produce. (TWUA—Millbury Woolen)

This agreement lists a number of competitive mills and gives both union and company the right to prepare additional lists.

Another device employed by a few unions to safeguard earnings in connection with new rates is the requirement that upward rate determinations or reratings in cases where restudies have been requested be made retroactive to the date of request or shortly thereafter. The pertinent clause in an automotive parts plant agreement states:

In case an operator cannot make out on the piece work rate assigned he is to report immediately to his foreman who will have the job retimed and adjusted if found incorrect. If retimed and adjusted upward, all pieces or set-ups, previously done on the current run, will be paid for at the new rate. (UAW—Automotive Gear)

A dress shop agreement contained the following more detailed clause:

Should it become necessary for the Company, through its time standards, subsequently to raise any of the piece work rates on any of the garments produced during the first three weeks or during subsequent weeks, back pay shall be given by the Company in the amount of the difference between that which the piece workers earned at the original rate and that which they would have earned at the higher rate. The company shall not be required to pay back pay to piece workers unless a complaint against the piece rates is filed on either the first or second cutting of the style in question. (ILGWU—Stern-Slegman-Prins)

The principle of making readjustments retroactive is often observed without being actually required by agreement.

Most unions are aware that the operational changes which occasion changes in incentive rates are usually labor-saving in nature and they feel that workers should share in the gains. However, few have established this as a principle in agreements, although it is frequently employed as argument in negotiating rate changes. The local in a small eastern steel firm was able to get such a provision written into its agreement :

On such revised rates due consideration is to be given the principle that the employees of the company shall benefit from the advantages derived from the introduction of the aforesaid new methods. (USA—Standard Gas Equipment)

Similar provisions with regard to technological changes are to be found in several agreements in the rubber and textile industries. A textile agreement contains the following provision :

The company is to make a study in regard to allotment of gains in case of redesign and improved machines to see whether gains should go to the workers influenced or might be distributed to workers in lower paid categories. (TWUA—Bigelow-Sanford Co., Inc.)

Although not written into their contracts, a few local union officers reported informal agreements with their respective man-

agements which fixed the approximate proportions in which gains were to be shared.

It has always been a fundamental complaint of workers against incentive systems and methods that although earnings might be good under conditions of normal and continuous production, abnormal conditions are so common that in practice earnings are too uncertain. For this reason, where unions have been confronted with incentive plans many of the agreement safeguards developed have aimed at protecting earnings under a variety of circumstances that would otherwise reduce them. The union reasoning that irregular conditions are inevitably present to interfere with expected earnings was well expressed at the public hearing before the National War Labor Board in the "Little Steel" cases. The issue was the manner of computing the minimum wage guarantee. The United Steelworkers had requested the following agreement provision as a substitute for the existing guarantee:

The Corporation agrees that each employee will receive for each day of work either 85 cents per hour or his occupational rate, for the hours worked in that day, or his earnings which would include the tonnage, piece work or contract rate, whichever alternative is the highest.

In support of a guarantee calculated on a daily basis the union submitted the following argument: "The rate structure of Bethlehem Steel Co. has been purposely kept so complicated as to prevent the employees from understanding precisely what their rates are or what they are entitled to by way of earnings . . . We contend that in this complicated rate structure that these corporations have, particularly Bethlehem, the incentive, tonnage, and piece work rates cannot possibly encompass all the factors that may lessen the employee's opportunities to earn a just wage each day. In other words, we contend that it isn't humanly possible for a wage rate structure to be so composed as to take into consideration every single item that causes delay or a decrease in production in any one day. For this reason,

under the present system of averaging poor day earnings with other days the worker's failure to earn the guaranteed minimum on each day must be at times the result of managerial inefficiencies reflected in its maldistribution of work. Under the present system, the loss in earnings is borne entirely by the workers." ⁴ The flat glass workers disposed of the same problem by inserting in their agreements the simple statement:

Each day's earnings shall stand for itself. (FGCSSW — Pittsburgh Plate Glass)

Similar problems sometimes confront workers in machine products plants and other job order types of shops where workers normally put in time at several different jobs or operations a day. The temptation for management is to piece out a worker's low earnings on one job by taking from his high earnings on another. This practice was a bone of contention between management and the local in a rubber products plant where the agreement definitely provided that no changes in rates or standards were to reduce previous average hourly earnings. The union maintained that this clause protected the worker's standard on each type of work performed; the management interpreted it as a guarantee of total hourly earnings only. Typically, most of the workers in this plant work on a number of different items in the course of a day and if they lose on one item and make it up on the others the management considers the guarantee kept. The president of the local admitted that the workers have helped cut their own throats in this matter. For when they suffer a reduction in previous earnings on one item or job they are naturally tempted to make it up by raising their production on others. Another question concerns the proper period from which previous earnings are to be computed. This may be a matter of agreement:

⁴From Transcript of the Public Hearing Before the National War Labor Board in the Cases of Bethlehem Steel Co., Republic Steel Corp., Youngstown Sheet and Tube Co., and Inland Steel Co., Cases No. 30, No. 31, No. 34, and No. 35. July 1-2, 1942.

Past average earnings shall be based on the two previous pay periods. Any exceptions will be a matter of negotiations. (URW — Mohawk)

On a tube machine operation in this plant, the management increased the size of the feed and cut the rate as production was stepped up. The union protested that the increased production not only increased the work for the men supplying the machine and moving material from it but that they could not make their previous earnings. Management replied that previous earnings were inflated. The president of the local admitted that before the official change in size of feed the men had themselves increased it so that their earnings were in a sense inflated. Since several types of stock are processed on this machine it is another case in which a reduction in previous earnings on one job is justified by management because men are able to maintain their previous total hourly earnings by stepping up production on others. The local union in a machine tool plant met this type of problem with a specific contractual injunction:

Where an incentive worker has made better than his classified rate, no deduction shall be made to even up on subsequent operations where he has been unable to make his stated classified rate. (IAM — Chicago Pneumatic)

Another type of contractual protection is concerned with the earnings of incentive workers before rates or standards are determined. In a number of the durable goods industries, when new jobs are introduced or when changes in operations require rate changes there are ordinarily periods of varying length during which employees must work without permanent rates. The safeguard in such circumstances may be a guarantee of full earnings. This is illustrated in a rubber plant agreement:

All new operations having no rate posted shall be paid for at the employees' past average earnings. (URW — General Tire)

Or something less than previous earnings may be assured as in an agreement with an automobile company which provides:

At the beginning of a new model when employees are called to work they shall work on a day work basis until such time as acceptable piece work rates have been established, and their hourly rate of pay shall be 5¢ less than expected hourly earnings. (UAW—Nash-Kelvinator)

The proportion of regular earnings guaranteed depends in part upon the bargaining strength of the union and in part upon the production situation in the industry and plant. In some cases where the new job or revised job may differ little from the old one, the worker may be expected to regain his normal rate of production very shortly and the delay in fixing the rate may be due to inadequate time study staff; in this situation the worker should not be penalized by loss of earnings. In other cases, as in the auto industry with each new model season, some time has to elapse before the workers get into the swing of the new operations and reach full productivity; here management would be penalized if it had to pay previous earnings.

Protection of earnings in the event of lost time is one of the most common forms of safeguard contained in agreements. Time lost from full production on account of all manner of delays and interruptions can reduce seriously the earnings of incentive workers. It is a larger problem in certain industries and types of operations than in others, but most, if not all, unions have to deal with it in some way. One type of provision is stated in general terms:

The company will pay waiting time at the minimum hourly rate for all time lost. (Typical clause)

The blanket guarantee is often qualified by requiring that the lost time shall not have been the fault of the workers. Other provisions specify in greater detail the circumstances under which lost or "down" time will be compensated for. A good

example of the detailed type of provision is the clause from a rubber company agreement:

When idle over 4 minutes, workers get hourly base rate which shall apply over and above the amount earned while actually working, providing the idleness was due to power interruption, lights off, mechanical delays, waiting for materials, changes in set up, injuries requiring medical attention. (URW — Sun Rubber)

Most lost time guarantees stipulate some minimum period for which the delay or stoppage must endure before workers will be paid, but this minimum varies from 3 minutes to 30 minutes. One automobile concern pays for delays due to breakdowns and stock shortages when they exceed 15 minutes in conveyor operated departments, but only if over 30 minutes in other piece work operations. A few unions have gained the right to cumulate to the end of the working shift and submit for compensation small stoppages which separately do not exceed the minimum.

The rate of compensation for down time also varies. It is apt to be the factory minimum, base rate, classification rate, day work rate, or some percentage of any of these; in fewer cases previous average earnings are paid. Union policy, naturally, has been to reduce the minimum period of down time for which employers will pay and to raise the rate at which the guarantee will be paid, and the agreements of the last several years reveal that many local unions have had success with this policy. It should be noted in this connection that conversion from incentive to hourly rates of pay does not always settle the problem of down time. This has been made clear in the automobile industry where several large employers require or attempt to require their workers to make up delays or lost time not exceeding 20 to 30 minutes. It has become an important union grievance in relation to the larger problem of production standards.

Corresponding to the guarantees covering lost time are the earnings safeguards which apply to other interferences with

steady production. Faulty materials or conditions need not result always in complete stoppage, but simply may reduce output. This situation is specifically provided for in a few agreements. Two different auto parts plant agreements state, respectively:

Average earnings will be paid when an operator has bad stock or trouble and is told by the foreman to continue on job, and by using the same or more effort is not able to make out at his usual earnings. (UAW — Auto-Lite)

Piece work employees who are required to operate a faulty machine or work with substitute parts will be guaranteed their regular bonus providing they report to their foreman at the time they start work. (UAW — Auto-Lite)

Potential loss to incentive wage earners who must make frequent changes in operations or who are delayed between jobs is guarded against in a few instances:

While an operation is being changed for any reason, a worker shall not receive less than average hourly earnings. (URW — Sun Rubber)

For the same reason protection is extended to workers on short run jobs in a machine products plant:

The company agrees with the union that operators in the machine shop on jobs requiring two hours or less time shall be paid a guaranteed rate of 80 B minutes per hour. (UAW — Gar Wood)

Responsibility for regular production is put definitely on management in a rubber company agreement:

When employees on piece work fail to make out due to change in operations or failure of the company to provide sufficient work they shall be paid not less than their average wage for that day. (URW — Baldwin Rubber)

An auto local has secured protection of its members during set up time:

A piece worker losing time in setting up a new job or changing operations shall get a day work ticket in addition to the regular set up price. (UAW — White Motor)

One tire and rubber plant local formulated, and won the employer's assent to, a general protective provision covering all such contingencies as have been mentioned:

When any operation is off standard for any reason, the average for the last pay period week on that operation or for that group shall be paid not to exceed 85% efficiency maximum. (URW — U. S. Rubber)

A number of unions have inserted clauses in their agreements protecting the earnings of workers assigned to special work. Thus, a glass company agrees with the Union that:

Should employees working on incentive at their regular occupation be required to perform work of unusual nature when they are directed to be especially careful due to the character of this special work, arrangements will be made to insure temporarily against loss of normal incentive. (FGCSSW — Pittsburgh Plate Glass)

At a rubber plant:

Employees temporarily removed from their regular jobs shall be paid at the rate of 95% of their average B hour during the past pay period. (URW — Goodrich)

In much the same way the earnings of incentive workers are protected by agreement at several plants in the event of transfer by management from one job to another. In most cases if a worker is transferred to a job having a higher rate he is assured of that rate. One agreement requires that when a piece worker is given a day work operation of the same character he is to be paid a special day work rate of 15% above the base rate of that operation. (URW—American Hard Rubber).

It is to be noted that most of these specific safeguards which deal with the various circumstances that tend to reduce incen-

tive earnings have a two-fold effect. They not only protect the earnings of the workers but they alter one of the essential features of the incentive principle by shifting the burden of delays and interruptions of regular production back upon employer and management. It becomes management's responsibility rather than the workers' to keep track of all the many factors that make the difference between inefficiency and smooth continuous production and to see that corrections are made as needed.

It is also concern over earnings which leads unions to regulate the distribution of work among incentive wage workers. Usually this is handled informally by the workers themselves and does not often appear in agreements. However, a flat glass industry agreement contains this reminder to management.

An effort is to be made to distribute work among incentive workers so that all get an equal opportunity at bonus.
(FGCSSW — Pittsburgh Plate Glass)

Of similar intent is the following clause from a rubber company agreement :

So far as practical, all piece work in the press department shall be divided so that one man does not receive all the low rated jobs and another man receive all the high rated jobs. (URW — Puritan Rubber)

When incentive wages are calculated on the basis of group production individual earnings may suffer when there are changes in personnel of the group. In a few instances unions have established safeguards against such loss, as in the following provision in the agreement of a small metal products firm :

All men assigned to groups shall not become part of said groups as far as sharing in the group earnings is concerned until such time as foreman and group mutually agree a new man is qualified. (USA — Standard Gas Equipment)

A rubber plant agreement contains this clause:

Average earnings shall be paid to employees working on a group system when an inexperienced employee is put on a job until he makes 60 B hour, but only up to 15 days. When an experienced employee is asked to break in a new man, he shall receive average earnings until the new man makes a 60 B hour, up to 15 days. (URW — Boston Woven Hose)

In similar fashion an automobile manufacturer agrees to bear the first week's wages of employees hired or transferred to group piece work at which they are new. Any contribution of such workers to production is thus clear gain to the group. At this same plant it is the practice, if one or more members of a group are absent, to divide the total earnings produced by the group among those remaining at work.

All these measures developed by unions to protect incentive workers from loss of earnings intensify the problem of maintaining efficiency for employers and managements. Since the effect of these safeguards is to lessen the dependence of earnings upon productive performance they tend also to increase the unit costs of production. On the other hand, because they do saddle company and management with the responsibility for and the costs of interruptions and fluctuations in production they serve as a stimulus to management to maintain efficient operation. Management representatives often admit as much. It remains true, however, that employers incur extra costs in granting guaranteed base rates, in guaranteeing incentive rates and standards, in paying for down time and other interruptions of production, and especially in assuring incentive workers a definite level of earnings over and above base rates. They must be able to count on sustained effort and reasonable productivity from the workers in return. The quality of effort put forth by a group of workers is a function of their total plant situation and as a rule, cannot be governed by single factors such as an incentive plan or compulsions written into an agreement. Yet a good many employers have countered the safeguards which

unions secure in agreements with rights of their own designed to help them enforce a minimum level of efficiency from their employees. These provisions may be simply qualifying protections to accompany guarantees made to the workers. Such is this clause in the agreement of a large rubber plant:

When the productive work of an experienced employee decreases without proper cause to less than 60 B's per hour, the company may pay only for the actual productive work performed. (URW — Goodrich)

Another type of provision permits employers to invoke penalties for low production. A textile agreement contains these clauses:

If a weaver does not produce at 75% efficiency he shall be replaced after due collaboration with the union. The company has the right to discharge a worker not making the minimum of his group after consultation with the shop committee. (TWUA — Allegheny Silk)

An electrical products firm, after guaranteeing certain minimum hourly earnings, insists:

The company shall be entitled to receive from its employees performance which earns 5% above the standard established. (IBEW — Wadsworth Electric)

The penalty may be transfer or discharge. A third type of clause provides for joint consideration and action when the production of an employee or group falls. The following wording is from a textile agreement:

To insure amicable relations it is desirable that normal rates of production be established and maintained after the signing of this agreement. It is agreed that the company shall have the right to take necessary steps to reorganize and operate the plant efficiently. The workers and the Union shall cooperate. Minimum production shall be worked out by mutual agreement and shall be accepted as part of the agreement. (TWUA — Atlas Waste)

At a rubber plant it is agreed that when an experienced employee begins to earn less than a 70 B hour on a piece work job it becomes a matter for negotiation. Some managements have sought to insure that the bargaining privileges and safeguards granted unions will not obscure general competitive considerations. In a textile mill it is agreed that :

Work assignments shall be equal to those in efficient, competitive and comparable mills. (TWUA — Mt. Vernon-Woodberry Mills)

In a steel plant it is provided that :

The Corporation may, at any time, present to the Union adjusted rates of pay . . . where competitive conditions threaten and, with the approval of the executive committee, put such adjusted rates into effect. (USA — Walworth)

A good working basis for handling the crucial labor cost question was developed out of mutual understanding and confidence and incorporated in some detail in the agreement between an automobile manufacturer and the local union. Before any work is taken out of the plant the reasons are presented to the union and if it is a cost decision the union is given a chance to meet the requisite prices. The nature of the union's approach is indicated in the following provision :

In view of the mutual benefit to both the Company and the Union by affecting savings in the manufacture of the Company's products to make them more competitive and secure less interrupted operation, the Executive Shop Committee agrees to study from time to time, and conscientiously endeavor to meet the costs of any operation brought to the Executive Shop Committee's attention by the Company as being higher than the Company's studies indicate it should be. In such cases a reduction could be made in the labor cost, notwithstanding any other paragraphs of this agreement. (UAW — Willys-Overland)

Maintaining production up to standard is even more of a problem for companies operating on an hourly wage basis, especially where there has been a recent conversion from an incentive system, and they sometimes turn to similar contractual provisions. For instance, in a metal products plant in which management had had trouble keeping up individual output:

The Union agrees that the Company is entitled to and shall receive from each employee the amount of work established by the standard rates of production. . . . The Union agrees to increase its efforts so that the Company will receive from each employee the standard of production and to show it proposes to carry this out, the Union agrees that where an employee fails to maintain his standard rate of production, he will be subject to the following penalty: 1. Warned; 2. Three days lay off; 3. Discharge. (UAW — Bohn Aluminum)

However, the management of this plant reported that the assurances given by the union were simply in token exchange for the elimination of the incentive plan and were not observed and that because of the union's organized strength the company was virtually helpless in trying to enforce production standards.

In addition to safeguards dealing directly with earning rates and time study some unions have found it advisable to include in agreements certain protective clauses relating to speed of operations, which has an obvious bearing on incentive wage rates. Many employers will consent to no more than a general declaration of policy like that found in a number of automobile industry agreements:

The policy regarding speed of operations is that time studies shall be made on a basis of fairness and equity, consistent with quality of workmanship, efficiency of operations and the reasonable working capacities of normal operators. (UAW — General Motors)

In other cases unions have imposed more definite conditions. This is true of agreements covering a large part of the flat glass industry:

The Company will give thorough and fair consideration to the possibility that increases in speeds of operation may impose undue hardship on employees. In such cases the Company will increase forces to properly compensate for this situation. Further, if and when increases in speed are made to such an extent that additions to numbers of employees on any operation is impractical or does not alleviate the situation, then the Company will establish either premium systems or other form of increased compensation. The Union does not desire to dictate that any certain number of employees will be established in connection with any of the Company's operations, or that speeds or production are to be restricted. (FGCSSW — Pittsburgh Plate Glass)

A guiding rule on mechanical operating speed occurs in the agreement of a large tire and rubber plant :

The Company agrees that no production practice, mold capacity, conveyor speed, etc. shall be maintained which shall require an employee to produce on average more than an 85 B hour for satisfactory production volume. (URW — Goodrich)

The union explained that this provision applies primarily to group-work operations. In the absence of some members of a group the rest do not have to maintain the level of production; it means also that the foremen do not get a chance to point out that 14 men did the work of 16. In the automobile industry it has been the practice on occasion, in order to minimize controversy and suspicion in regard to line speeds, to lock the controls with a union and management representative each retaining a key. This procedure was provided in the agreement of one firm :

The speed of production conveyors upon which the operations are being performed, piece work, will be designated in the Time Study and locked. When the production of a conveyor is interrupted... it is agreed that whenever it is

practical the speed of such conveyor when it starts up can be increased to such an extent and for such duration of time as mutually agreed upon by the Foreman and the Committee and it shall be locked in that position for the time agreed upon. (UAW — Willys-Overland)

Time study safeguards. As a rule, in companies which pay incentive wages time study of some kind is used by management in setting rates and standards and it is definitely associated in the minds of workers with incentive methods. Because of this association and because of direct experience with abuses of time study methods, workers still lack confidence in them. As a consequence, among the agreement safeguards with which unions supplement their collective bargaining control over incentive payment there are many dealing with time study and job study procedures of management. The provisions to be discussed here are specific prohibitions and requirements which unions often impose in addition to clauses influencing more general bargaining rights. For the most part, they seek to regulate in some degree the time, manner, or conditions under which studies are made.

Although it is practically never expressed in agreements in so many words, unions take a very strong stand against secret or concealed time studies, a practice some employers have been known to countenance in the past in an attempt to expose slow workers, cut loose rates, or get fast timings. Some unions require that workers are to be notified when time studies are taken. At an auto body plant the agreement provides that all time studies are to be performed on the day shift (UAW-AFL—City Auto Stamping); this is partly to prevent secret studies and partly to prevent pitting one shift against another. At an automotive products plant there is a verbal agreement that whenever a time study is being taken the watch must be laid on a table in full view of the worker. The written agreement in an automobile company contains the following provision:

Whenever a time study man is timing or checking an operation, he will use the time study board with the stop watch attached so that the operator will know that he is being observed and the department committeeman will be notified before the timing is started. (UAW — Willys-Overland)

When incentive rates are involved the time factor is usually a matter of concern to workers in several ways. As has been remarked before, they generally find it to their interest to prevent undue delay between the beginning of an operation and setting the rate on it in order that there will be no loss of full incentive earnings. However, in some industries and on certain types of production there is a genuine question as to just when, as production gets under way on a new article, a new model, or with new equipment, it is fair to both sides to take time studies and set rates or standards. Automobile production presents the issues in somewhat magnified form. At the beginning of each model season the jobs of great numbers of the men are changed and new; it takes time for the men to get accustomed to the changes and to acquire a habitual rhythm. It also takes time to get materials and the various lines flowing smoothly and synchronously; and it also takes time to get the "bugs" out of the new model and out of the operations. Any rates set at the very beginning clearly would be too high. On the other hand, workers claim that if rate setting is postponed too long the companies get all the benefit of the increase in workers' individual efficiency and the result is unduly tight rates and standards.

The importance of this problem is demonstrated by the situation existing at an automobile plant visited in the course of the field study. The main force of production workers was on piece work but there had been a majority vote in the union favoring day work and the union had begun negotiations in regard to ways and means of making the shift. It was quickly apparent that a major question concerned the proper stage of the production season at which to make the change and convert piece rates into hourly rates. The management believed it should be done in

the midst of the regular production season. The union maintained that at such a time, when the men are putting out top effort and have reached maximum skill, the change would result in top high production standards. It was also not certain that the workers would approve the change at a time when they were making top piece work earnings. The union wanted the change to come at the start of a season, but the management insisted this would place it at a complete disadvantage and would be ruinous in terms of costs. It should be noted that management at this plant took a sampling poll of plant personnel on the piece work versus day work issue and found a majority for retention of piece work. The contradiction between this finding and the union vote may be explained in part by the fact that the former occurred at peak production and earnings, while the latter took place near the season's outset when dissatisfaction over piece work is greatest.

The agreement of another automobile company set these limits on rate determination:

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. (UAW — Studebaker)

At still another automobile company:

It is understood that operations will be time studied as soon as they are running efficiently . . . the company will be allowed 4 working days to get an operation running efficiently, except on major changes done on lines, when they will be allowed a total of 10 working days. (UAW — Willys-Overland)

The union in a rubber plant required that

Standards shall be established by time study on new jobs within 10 days after temporary rates have been posted. (URW — Sun Rubber)

Some unions make sure that when rates are disputed management will not stall in retiming the jobs. In one rubber firm the results of a restudy must be furnished within 48 hours of the union request. In an automobile plant the management is allowed 3 days to begin a retiming. A few unions are particular also in stating the time and manner in which the results of time studies are to be furnished to workers. In a rubber plant agreement it is stated:

Results of all time studies shall be furnished to the departmental committeeman within 48 hours after the rate setter leaves the department. The latter shall furnish the operator on the job before he leaves an accurate record of time not allowed on the operation studied. (URW — Quaker Rubber)

In an automotive plant:

On all piece work timed, the rate shall be determined within a reasonable time and determined from the starting of the job and the rate given to the worker not more than one hour after the completion of the time study of that particular job. (UAW — Willys-Overland)

Recognizing that lack of information and understanding contributes to conflict over incentive rates and time study methods, a few unions have added information clauses in their agreements. A glass company promises that:

Bonus rates and values will be posted at all times and daily earnings posted as promptly as possible after the work is completed. (FGCSSW — Pittsburgh Plate Glass)

In a machine tool plant management must keep its workers informed in the following ways:

A file shall be maintained of all authorized changes in piece prices for the shop steward. . . . Classifications and base rates will be posted in each department with allowances on different types of work. . . . To convert time into money earned, con-

version charts or other suitable information will be furnished.
(IAM — Chicago Pneumatic)

In another tool plant a detailed list of specified tools, feeds, and speeds is to be available to operators upon request.

Another group of provisions dealing with time study procedures are those which prescribe some of the conditions under which studies are to be conducted and certain factors to be taken into account. At an auto body plant the local requires that:

In timing jobs, the quality of work and the materials to be used, as well as the type of machine on which jobs are to be run, shall be specified. (UAW-AFL—City Auto Stamping)

A rubber plant agreement contains these directions:

When practical, time studies will be made on experienced operators who regularly perform the work. . . . Time studies on such operators will be used in determining their average. The same applies to rechecks. When one operator is time studied more than once, all studies will be used in determining the average output for the operator. (URW—Continental)

A similar union concern is evident in the agreement in a machine tool plant:

In changing piece work rates, the workman in cooperation with the time study man shall try out the operation a sufficient number of times to establish a set time for the operation which shall be jointly agreeable to the workman and the representative of the company. Where it is necessary to time study more than one operator, the company shall be required to time study not more than three operators in order to set the rate on the job. At no time shall a set-up man or foreman be time studied on any operation. (IAM — Chicago Pneumatic)

At an auto parts plant the agreement provides that when the union questions a time study the following procedure will be followed:

The time study is to be made in conjunction with the steward of the department and one committee member. They will time study the job as long as deemed necessary to establish a rate. After sufficient time in studying they will work out the rate of production. (UAW—General Spring & Bumper)

These requirements regarding operators and the length of studies are aimed at management practices that are frequent targets of union complaints. Workers feel that time study men prefer to set rates by operators who will give fast times rather than by men who are representative workers and to whom the rates will apply. In one machine shop, after considerable dissatisfaction with rate setting, a member of the union shop committee was made the rate setter with the duty of performing all new jobs at normal speed to establish proper rates. Another grievance which was encountered at a number of different plants and should be noted in this connection grew out of the practice of setting rates and standards on new equipment according to time standards furnished with the machines by the manufacturers. Workers claim that since they are selling points these specifications tend to be tight and represent top performance of the machines under ideal conditions. It is also a common charge that rates are set too often on the basis of perfunctory and inadequate time study. Managements that are anxious to allay worker suspicion on this point often make the retiming observation in case of dispute as long a one as the workers desire.

Some unions choose to make sure that specific allowances are granted in time studies by indicating in agreements the values to be observed. Among the factors that are provided for most commonly are lost time, fatigue, personal time, and set-up time. One local specifies that allowance must be made in timing new machinery for any old attachments that continue in use. There is no uniformity about these provisions; few agreements systematically enumerate all the factors to be allowed for. Some stipulate the precise percentage to be allowed while others do

not, and the values assigned to the different allowances vary from plant to plant. The following clause is from an automobile company agreement and is one of the most detailed to be found on the subject of factors to be considered in time study:

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% of the time allowed for actually performing the operation shall be added for personal contingencies. (UAW — Willys-Overland)

This is an appropriate provision with which to conclude this discussion, but not because it is a typical clause. On the contrary, for union agreements, it is an exceptional summarization of the many diverse considerations that should enter into the evaluation of jobs whether by time study or any other process. Although these considerations do not usually receive such detailed mention in agreements, the manner in which management handles them may determine in large part union attitudes and policies with respect to incentive wage methods.

APPENDIX

UNION AGREEMENTS

THE following list presents a fuller identification of the union agreements from which pertinent clauses dealing with incentive wage or time study matters have been quoted in the preceding text. It should be repeated that this is by no means an exhaustive list of the agreements which contain such clauses, that it does not cover all the manufacturing industries in which such agreement clauses are to be found, and that it is not even a representative list in that many agreements have been selected for quotation because they deal with incentive rates or time study in unusual detail or in some special manner. Where the information was available, the month and year in which each agreement became effective and in which it expired or was due to expire are given. The letter (R) after an expiration date indicates that such agreement is renewable, usually for a year, unless terminated by either party.

United Automobile, Aircraft and Agricultural Implement Workers of America—CIO

Ainsworth Manufacturing Corp., Detroit, Jan., 1942–Dec., 1942 (R)

American Blower Corp., Detroit, effective June, 1937

Automotive Gear Works, Inc., Richmond, Ind., Oct., 1940–Dec., 1941

Bantam Bearings Corp., South Bend, Sept., 1941–Sept., 1942 (R)

Bohn Aluminum & Brass Corp., Detroit, Dec., 1940–April, 1942 (R)

Chrysler Corp., Detroit, Nov., 1939–Nov., 1940 (R)

Clark Equipment Co., Buchanan, Mich., Sept., 1940–June, 1941 (R)

Electric Auto-Lite Co., La Crosse, Wis., Aug., 1940–Aug., 1941 (R)

Toledo, Sept., 1940–Sept., 1941 (R)

Gar Wood Industries, Detroit, May, 1941–Jan., 1942

General Motors Corp., Detroit, Oct. 19, 1942–Oct. 5, 1943

General Spring & Bumper Div., Detroit, Dec., 1941–Dec., 1942

- Nash-Kelvinator Corp., Racine, Wis., Oct., 1940-Oct., 1941 (R)
- Studebaker Co., South Bend, May, 1937, amended through Mar., 1941
- Timken Detroit Axle Co., Detroit, Aug., 1941-Sept., 1942
- White Motor Co., Cleveland, Nov., 1940-July, 1942 (R)
- Willys-Overland Motors, Inc., Toledo, Aug., 1939-Aug., 1940 (R)
- Wolverine Tube Co., Detroit, Dec., 1941-Dec., 1942 (R)
- United Automobile Workers of America, A. F. of L.
- City Auto Stamping Co., Toledo, June, 1940-June, 1941 (R)
- Eaton Manufacturing Co., Massilon, Ohio, May, 1940-May, 1942
- United Rubber Workers of America
- Ace Rubber Co., Akron, Feb., 1941-Feb., 1942 (R)
- American Hard Rubber Co., Butler, N. J., May, 1941-May, 1942 (R)
- Baldwin Rubber Co., Pontiac, Mich., Aug., 1939-Sept., 1940
- Boston Woven Hose & Rubber Co., Cambridge, Mass., Mar., 1941-Mar., 1942
- Continental Rubber Works, Erie, Pa., Sept., 1941-Mar., 1942 (R)
- Electric Hose & Rubber Co., Wilmington, Del., July, 1941-July, 1942
- General Tire & Rubber Co., Akron, June, 1941-July, 1942
- B. F. Goodrich Co., Akron, April, 1941-May, 1942
- Mohawk Rubber Co., Akron, Sept., 1939-Sept., 1941 (R)
- Puritan Rubber Co., Trenton, N. J., June, 1939-Oct., 1940
- Quaker Rubber Corp., Philadelphia, May, 1941-May, 1942 (R)
- Seiberling Rubber Co., Barberton, Ohio, June, 1940-June, 1942 (R)
- Sun Rubber Co., Barberton, Ohio, Apr., 1941-Mar., 1942
- U. S. Rubber Co., Detroit, Jan., 1941-Mar., 1942 (R)
- Ball-Band Plant, Mishawaka, Ind., May, 1940-May, 1941
- Gillette Tire Plant, Eau Claire, Wis., Jan., 1941-Mar. 1942 (R)

Textile Workers Union of America

- Allegheny Silk Corp., Altoona, Pa., Sept., 1939-Aug., 1940 (R)
- American Thread Co., Dalton, Ga., Aug., 1940-Aug., 1942 (R)
- Atlas Waste Manufacturing Co., Inc., Glendale, N. Y., July, 1940-June, 1942 (R)
- Bigelow-Sanford Carpet Co., Inc., Thompsonville, Conn., Oct., 1940-Sept., 1942 (R)
- Clifton Yarn Mills, Inc., Clifton, Pa., July, 1938-July, 1941
- Columbia Mills Co., Columbia, S. C., Nov., 1940-Nov., 1942
- Edna Mills Corp., Reidsville, N. C., June, 1941-July, 1942
- Hart & Foster Co., Philadelphia, Dec., 1937-Dec., 1940
- Hellwig Silk Dyeing Co., Philadelphia, Mar., 1940-Mar., 1943
- Highland Cotton Mills, Inc., High Point, N. C., Sept., 1940-Dec., 1941 (R)
- Imperial Rayon Corp., Gloucester, N. J., Jan., 1940-Jan., 1942 (R)
- Millbury Woolen Co., Millbury, Mass., expiration Dec., 1942
- Mt. Vernon-Woodberry Mills, Inc., Baltimore, Aug., 1939-Aug., 1942
- Profile Cotton Mills, Jacksonville, Ala., Jan., 1942-Jan., 1943

United Steelworkers of America

- Standard Gas Equipment Corp., Jersey City, July, 1941-June, 1942
- Symington-Gould Corp., Rochester, N. Y., July, 1941-Aug., 1943
- U. S. Sanitary Manufacturing Co., Monaco, Pa., Aug., 1941-April, 1943
- Walworth Co., Greensburg, Pa., Mar., 1939 until terminated
- Wheeling Steel Corp., Wheeling, W. Va., Mar., 1938-June, 1941

International Association of Machinists

- Chicago Pneumatic Tool Co., Cleveland, effective Oct., 1940
- Cleveland Heater Co., Cleveland, effective Nov., 1940
- Cleveland Tractor Co., Cleveland, effective Feb., 1940
- Waukesha Motor Co., Waukesha, Wis., Oct., 1941-Sept., 1942

Federation of Glass, Ceramic, and Silica Sand Workers of America

Pittsburgh Plate Glass Co., Pittsburgh

Libby-Owens-Ford Glass Co., Toledo

One agreement covers all organized plants, Feb., 1942–
Feb., 1944**United Electrical, Radio, and Machine Workers of America**

Westinghouse Electric and Manufacturing Co., April 8, 1943

P. R. Mallory & Co., Inc., Indianapolis, May, 1940–July,
1942 (R)

General Motors Corporation, Nov. 2, 1942–Oct. 5, 1943

International Brotherhood of Electrical WorkersWadsworth Electric Manufacturing Co., Covington, Ky.,
Nov., 1938–Nov., 1940 (R)**United Shoe Workers of America**

Janice Shoe Co., Lynn, Mass., Jan., 1940–Dec., 1940

Shoe Manufacturers Board of Trade, N. Y. C.—standard
agreement with Joint Council, No. 13, expiration
Nov., 1942**International Ladies Garment Workers Union**National Dress Manufacturers Association, N. Y. C.—stand-
ard agreement with Joint Board of Dress and Waist-
makers' Union, Feb., 1936–Jan., 1944

Stern-Slegman-Prins Co., Kansas City, effective Mar., 1940

Amalgamated Clothing Workers of AmericaN. Y. Clothing Manufacturers Exchange, Inc., N. Y. C.—
standard agreement with N. Y. Joint Board, June, 1941–
June, 1943**United Hat, Cap, and Millinery Workers**Millinery Manufacturers of New Jersey, Inc.—agreement with
Joint Board of Locals 2, 24, 42, 90, Feb., 1940–Jan., 1943Midwestern Millinery Association, Chicago—agreement with
Joint Board of Locals 51, 52, 53, 54, Feb., 1940–Jan., 1942**New Bedford Textile Council (Independent)—agreement with**New Bedford Cotton Manufacturing Association, New Bed-
ford, Mass., June, 1941–Jan., 1943 (R)

BIBLIOGRAPHY

- Barnes, Ralph M., *Motion and Time Study* (2nd ed.), New York, 1940.
- Barkin, Solomon, "Textile Workers and Time Studies," *Textile Labor*, March, 1941. This is the first of a series on related topics appearing in succeeding issues through October, 1941.
- , "Arbitration Supplants Strikes in Stopping Textile 'Stretch-out,'" *Arbitration Journal*, IV: 85 (1940).
- Bergen, Harold B., "Union Participation in Job Evaluation," *Personnel*, XVIII (1942).
- Brown, Geoffrey C., "A. F. of L. Report on the Bedaux System," *The American Federationist*, XL: 936 (1935).
- , "Labor's Principles of Scientific Management," *The American Federationist*, XXXVII: 194 (1930).
- , "Workers' Participation in Management," *Bulletin of the Taylor Society*, XIV: 11 (1929).
- Carroll, Phil, Jr., "One View of Labor's Participation in Time and Motion Study," *Advanced Management*, VI: 75 (1941).
- Cole, G. D. H., *Payment of Wages* (rev. ed.), London, 1928.
- Committee on Rating of Time Studies, "Progress Report," *Advanced Management*, VI: 110 (1941).
- Cooke, Morris L. and Philip Murray, *Organized Labor and Production*, New York, 1940.
- Congress of Industrial Organizations, *Producing for Victory: a labor manual for increasing war production* (1942).
- Dirks, George L., "Time Study in a Union Shop," *Addresses on Industrial Relations*, University of Michigan, Bureau of Industrial Relations (1939), p. 90.
- Dooley, Channing R., "What are the Trends in Wage Incentives and Other Financial Incentives?," *Personnel*, II: 120 (1935).
- Gaffney, J. D., *The Productivity of Labor in the Rubber Tire Manufacturing Industry*, New York, 1940.
- Golden, Clinton and Harold J. Ruttenberg, *The Dynamics of Industrial Democracy*, New York, 1942.
- Goodrich, Carter L., *The Frontier of Control*, New York, 1920. This is a "study in British workshop politics" and is listed here because in discussing the extension of worker controls it treats of many of the issues raised by worker participation in incentive wage methods.
- Gordy, C. B., "Measured Day Work Replaces Incentives in the Automobile Assembly Industry," *Society for the Advancement of Management Journal*, I: 162 (1936).
- Greenberg, Morris, "How to Operate Under a Collective Agreement," *Society for the Advancement of Management Journal*, III: 7 (1938).
- Haas, Francis J., *Shop Collective Bargaining; A study of wage determination in the men's garment industry*, Washington, D. C., 1922.

- Hall, Patricia and H. W. Locke, *Incentives and Contentment*, London, 1938.
This is a report of a study made in the Rowntree Cocoa Works, York, England. Wage incentives were among the factors studied.
- Hedges, Marion, "Time and Motion Study Under Collective Bargaining," *Advanced Management*, V: 89 (1940).
- Hilton, J. (ed.), *Are Trade Unions Obstructive?*, London, 1935.
- Hoxie, Robert F., *Scientific Management and Labor*, New York, 1915.
- , *Trade Unionism in the United States*, New York, 1917. See Chapter XII, "Scientific Management and Labor Welfare."
- , "Why Organized Labor Opposes Scientific Management," *Quarterly Journal of Economics*, XXXI: 62 (1916).
- Leiserson, William, "The Worker's Reaction to Scientific Management," *Bulletin of the Taylor Society*, August, 1920.
- Lytle, Charles W., *Wage Incentive Methods* (rev. ed.), New York, 1942.
- McCabe, David A., *The Standard Rate in American Trade Unions*, Baltimore, 1912.
- Mathewson, Stanley B., *Restriction of Output Among Unorganized Workers*, New York, 1931.
- Miller, Spencer, Jr., "Labor's Attitude Toward Time and Motion Study," *Mechanical Engineering*, LX: 289 (1938).
- National Industrial Conference Board, *Financial Incentives*, New York, 1935.
- , "Some Problems in Wage Incentive Administration," *Studies in Personnel Policy*, No. 19 (1940).
- National Metal Trades Association, *Methods of Wage Payment*, 1928.
- National Research Council, Committee on Work in Industry, *Fatigue of Workers*, 1940.
- Nickerson, J. W., "Work Assignment," *The Annals of the American Academy of Political and Social Science*, March, 1936, p. 54.
- Nyman, R. C., "Union-Management Cooperation in the "Stretchout," New Haven, 1934.
- Person, Harlow S., "Methods of Remuneration," *Encyclopedia of the Social Sciences*.
- Ramond, Albert, "Does Labor Want Maximum Production?," *Advanced Management*, VII: (1942).
- Roethlisberger, F. J. and William J. Dickson, *Management and the Worker*, Cambridge, Mass., 1939.
- Selekman, Benjamin, "Living With Collective Bargaining," *Harvard Business Review*, XX: 30 (1941).
- Slichter, Sumner, *Union Policies and Industrial Management*, Brookings Institution, Washington, D. C., 1941.
- Smith, E. D., *Technology and Labor*, New Haven, 1939.
- Uhrbrock, R. S., "A Psychologist Looks at Wage Incentive Methods," *Institute of Management Series* No. 15, American Management Association, 1935.

- United Automobile, Aircraft, and Agricultural Implement Workers of America—CIO, Local 2, and the Murray Corporation of America, *Production Standards From Time Study Analysis*, Detroit, 1942.
- United Electrical, Radio and Machine Workers of America, *U. E. Guide to Wage Payment Plans, Time Study, and Job Evaluation*, 1943.
- U. S. Bureau of Labor Statistics, "Incentive-Wage Plans and Collective Bargaining," *Bulletin No. 717* (1942).
- United Steelworkers of America (formerly Steel Workers Organizing Committee), *Production Problems*, Publication No. 2, Pittsburgh.
- Wolf, Robert B., "Non-Financial Incentives," *Advanced Management*, V: 168 (1940).
- Woll, Matthew, "Industrial Relations and Production," *The Annals of the American Academy of Political and Social Science*, XCI: 10 (1920).

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