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Major Collective Bargaining Agreements: Wage-Incentive, Production-Standard, and Time-Study Provisions



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Major Collective Bargaining Agreements: Wage-Incentive, Production-Standard, and Time-Study Provisions



U.S. Department of Labor
Ray Marshall, Secretary
Bureau of Labor Statistics
Janet L. Norwood, Commissioner
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Preface

This bulletin is the eighteenth in a series of studies prepared by the Bureau of Labor Statistics designed to survey in depth the entire scope of collective bargaining agreement provisions. Other publications in the series are listed near the back of this bulletin.

The objective of this bulletin is to provide information on provisions on incentive wage systems, production standards, and time studies. These provisions appear in many agreements, although they largely are confined to those in manufacturing industries.

For the study, nearly all collective bargaining agreements in the United States covering 1,000 workers or more were examined, with the exception of those for railroads, airlines, and government. The analysis does not necessarily reflect practices under smaller agreements. All agreements studies are part of a current file maintained by the Bureau for public and government use as stipulated by Section 211 of the Labor-Management Relations Act of 1947.

The interpretation and classification of the agreement clauses appearing in this bulletin represent the Bureau's understanding and not necessarily that of the parties who negotiated them. The clauses, identified in an appendix, are for illustrative purposes only and are not intended as model or recommended clauses.

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Contents

	<i>Page</i>
Chapter 1. Introduction	1
Scope of study	1
Related studies	2
Chapter 2. Incentive provisions	3
Types of incentive plans	3
Group or individual incentives	4
Changes in the incentive system	4
Extending or withdrawing incentive coverage	5
Penalty for defective work	7
Underperformance	8
Incentive information to the union and employees	9
Chapter 3. Rate-setting and resetting procedures	10
Management rights	10
Lowered rates and earnings opportunities	10
Union and employee rights	11
Union role	11
Incentive committee	12
Temporary rates	14
Trial period	15
Timing of challenges	15
Retroactivity	15
Rates for new and transferred employees	16
Safeguards against loss of earnings	18
Chapter 4. Production standards	22
Company policy and union-management cooperation	22
Installation and modification of production standards	23
Production-standard information	25
Trial periods and temporary standards	26
Production-standards appeal procedures	28
Allowances	29
Discipline	29
Chapter 5. Time-study procedures	31
Conditions for time study	31
Conducting the time study	32
Selection and training of union time-study personnel	33
Information to the union	33
Employee performance during time study	34
Length of time study	34
Tables:	
Major collective bargaining agreements, 1977:	
1. Unit or time basis of incentive payment, by industry	36
2. Group or individual basis for incentive earnings calculations, by industry	37
3. Procedure in change to different incentive plan	37

Contents—Continued

	<i>Page</i>
4. Extension of incentive coverage to existing jobs, by industry	38
5. Extension of incentive coverage to new jobs, by industry	39
6. Withdrawal of incentive coverage from existing jobs, by industry	40
7. Method for handling incentive worker underperformance	41
8. Circumstances allowing management to change incentive rates, by industry	42
9. Circumstances allowing union or employee to request a change in incentive rates, by industry	43
10. Union role in the rate-setting and resetting process, by industry	44
11. Role of incentive committee, by industry	45
12. Temporary incentive rates and conditions for permanent adoption, by industry	46
13. Transfers involving incentive workers, by industry	47
14. New employee incentive rate	47
15. Incentive earnings safeguards, by industry	48
16. Production-standard provisions, by industry	49
17. Employer rights relating to production standards, by industry	50
18. Union and employee rights relating to production standards, by industry	51
19. Selected provisions relating to temporary production standards, by industry	52
20. Appeal procedure relating to production standards, by industry	53
21. Limitation on appeal of production standards, by industry	54
22. Production-standard or time-study allowances for abnormal working conditions, by industry	55
23. Discipline or transfer for failure to meet production standards, by industry	56
24. Method used to establish production standards and/or incentives, by industry	57
25. Party or parties conducting time study, by industry	58
26. Time-study information and union rights, by industry	59
27. Selected employee-related time-study provisions, by industry	59
 Appendixes:	
A. Selected wage-incentive, production-standard, and time-study provisions	60
B. Identification of clauses	72

Chapter 1. Introduction

Management has been defined as "getting things done through other people." One of the problems management faces is that these "other people" may not always be as motivated as management would like them to be, particularly if their work is monotonous and repetitive. To encourage employees to work harder, many companies have installed incentive systems under which employee pay is directly or indirectly related to productivity. Such systems are not universally applicable but are best suited to work that is repetitive, readily measurable, and performed at a pace subject to control by the worker or group. When installing a new incentive system, or introducing changes, the company ordinarily studies and measures the jobs or operations and establishes standards of output on which incentive payments will be based. Standards, which often are applied to nonincentive jobs as well, commonly are set by time-study or other procedures that have been developed by industrial engineers.

The present study examines incentive, production-standard, and time-study provisions in collective bargaining agreements. Such provisions have existed for many years and, over time, often have evolved into arrangements reflecting both the need for productivity and the need for protection of employee and union rights. The incentives and production-standards systems under some agreements date back to before the collective bargaining relationship itself; under other agreements, they are the product of joint union-management efforts.

The incentive concept always has been somewhat controversial, and the policies and attitudes of neither management nor unions are uniform. Some employers reject incentive plans as too difficult and costly to administer, or as creating friction among employees; some unions recognize the advantages to be gained if incentives result in higher pay and may desire their extension to nonincentive workers. Unions sometimes object that incentive systems are poorly or unfairly administered, or that management claims the systems are precisely established under "scientific management" principles, leaving no scope for bargaining. These objections often may be overcome by giving the union a voice in the determination of the standards and rates and in the administration of the plan.

Some unions have a more fundamental objection to incentives, claiming that they are divisive, undermine group solidarity, create undesirable competition

among employees, and contribute to excessive stress and fatigue. Critics of incentive systems at times have also pointed to them as "mechanistic" devices, which treat workers as machines who react only to increased money rewards and ignore other human needs that might be achieved through job enrichment or greater participation in operating decisions. The effect of incentive plans on the principle of "equal pay for equal work" may be argued from either side. Proponents of the plans can claim the principle is supported, since employees with equal productivity receive equal pay, while opponents can claim the principle is violated, since employees with identical jobs, working the same hours, receive unequal pay, if their productivity is unequal.

That incentive systems can be successful under collective bargaining is evident from the large number of such plans that have continued over many years. Most of these are in manufacturing industries, where they exist in nearly every major sector, and are particularly common in the apparel and primary metal industries.

Scope of study

The agreements included in this study are based primarily on data from *Characteristics of Major Collective Bargaining Agreements, July 1, 1975* (Bulletin 1957), for which more than 100 different types of provisions were tabulated, including those on incentives and production standards. Agreements found to contain incentive or production-standards provisions, or both, have been included in the current study, with certain adjustments: Agreements included in the characteristics study expiring before January 1, 1976, were updated or, in some cases, dropped; a few others were found to be unusable, since, for example, employment had fallen below 1,000.

Under the adjusted figures, 1,438 major collective bargaining agreements were included in this study, each covering 1,000 workers or more, or a large majority of all agreements of this size in the United States, excluding those in railroads, airlines, and government. The contracts covered 6,982,900 workers, nearly half the total estimated to be under collective bargaining agreements in the industries studied. Of these, 749 agreements, covering 3,679,100 workers, were in manufacturing; 689, covering 3,303,800 workers, were in nonmanufacturing. All agreements were in effect

January 1, 1976, with most remaining in effect during 1977 or later.

The agreements referring to incentives or production standards were further examined for provisions establishing the type of incentive plan, rules governing the extension and withdrawal of incentive coverage, changes in rates, establishment of temporary rates and standards, time-study procedures, participation of employees and unions in the plans, and other selected provisions. The clauses presented in this bulletin were selected to illustrate either typical procedures or variations in the way negotiators handled specific issues. Where necessary, minor editorial changes were made to improve clarity or to eliminate irrelevant wording. All clauses are numbered for reference to the agreements from which they were taken and are identified in appendix B. A small number of complete provisions are presented in appendix A, to show how the various clauses fit together.

Related studies

The preceding bulletin in this series—*Major Collective Bargaining Agreements: Wage Administration Provi-*

sions (Bulletin 1425–17)—is a more general treatment of agreement provisions encountered in the administration of wages and wage related procedures. Included are discussions of various wage structures, wage differentials, wage reopeners, allowances, and other subjects. Two other bulletins in the 1425 series—*Major Collective Bargaining Agreements: Supplemental Unemployment Benefit Plans and Wage Employment Guarantees* (Bulletin 1425–3), and *Major Collective Bargaining Agreements: Deferred Wage Increase and Escalator Clauses* (Bulletin 1425–4)—also provide wage related data and analysis. Selected wage provisions in the private sector are tabulated by industry in *Characteristics of Major Collective Bargaining Agreements, July 1, 1976* (Bulletin 2013) and earlier bulletins in the series. Wage provisions for public sector agreements are tabulated by level of government in *Characteristics of Agreements in State and Local Governments, July 1, 1975* (Bulletin 1947). A similar chapter is also included in *Collective Bargaining Agreements for State and County Government Employees* (Bulletin 1920).

Chapter 2. Incentive Provisions

Of the 1,438 agreements examined, 442 contain provisions for incentives. (See table 1.) Agreements having incentive provisions are common in manufacturing, as opposed to nonmanufacturing industries, with almost 100 percent in apparel; 87 percent in primary metals; 88 percent in rubber; and 64 percent in electrical machinery industries. Many jobs in these industries involve repetitive operations whose output is accurately measurable.

Types of incentive plans

Basically, incentive systems are either piecework or some type of standard-hour plan. Piecework, the simplest system, pays the individual a set "price" per unit of output. A minimum or base rate usually is set, and employees producing below or at the base rate receive the minimum; faster workers receive more. Normally, the rate is set to permit the average experienced operator working with normal efficiency to earn well above the base rate. Piecework provisions appear in nearly 3 out of 5 agreements establishing incentives and are particularly common in apparel contracts:

- (1) Determination of piece rates is a function of management . . . Piece work earnings shall be calculated on a daily basis. The piecework daily production record will be available to the individual employee in the employee's department on the day following
- (2) In some of the local plants, operations on certain classifications are now covered by incentives which provide for payment of supplementary piecework rates applied to units of production, in addition to hourly rate payments for the time worked. The parties may agree at the local level that this type of incentive may be applied on piecework or incentive classifications or operations which presently do not have such incentive coverage, or to newly-established piecework or incentive classifications or operations.
- (3) All incentive workers will receive an amount of increase in piece work rates which will be the equivalent of 35¢ per hour on plant average earnings.
- (4) All operators, machine pressers, under pressers and finishers shall work on a piece work basis

The standard-hour plan has many variations and is usually based on time, rather than money, per unit or output. The standard, often expressed as 100 percent, refers to the amount of work of specified quality which an average experienced employee can produce in an hour, working at normal performance with proper

allowances for rest, personal needs, and minor delays. Under most standard-hour plans, employees are credited with additional earnings for production exceeding the standard. Many agreements do not clearly indicate whether the applicable system is piecework or a form of standard-hour plan.

Contracts containing standard-hour plans, or a combination of standard hour and piecework, appear in 31 percent of the agreements. (See table 1.) Standard-hour clauses often are found in primary metals and other Steelworkers agreements:

- (5) The standard hour incentive plan is based on the principle of "a fair day's pay for a fair day's work," and provides for increased earnings directly proportional to increased output above the incentive standard recognizing that a normal, qualified employee working according to the prescribed methods and conditions can consistently perform at an incentive pace and improve his output of acceptable production over the incentive standard.

The establishment of an incentive standard is based upon a qualified worker performing in accordance with company prescribed methods and quality requirements exerting normal effort, and includes allowances for personal time and other allowances as set forth in this agreement. "Normal" is the 100 percent pace to which the Industrial Engineering Department levels work time by time study or by the application of standard data compiled on the basis of the same 100 percent pace. Incentive operators are afforded an earning objective above normal of 25 percent of manual time elements based on the principal of 1 percent of increased earnings above the standard hour base rate for each 1 percent of incentive output above normal. The company does not guarantee the earnings objective nor is there any restrictions on earnings on work assignments for which an incentive standard has been established.

- (6) The standard hour incentive plan is operated on the principle that the normal non-incentive performance expected of average employees skilled in their assigned tasks is 100% performance. Performance beyond 100% is compensated for on a one for one principle and potential earnings on incentive work time where the operator is not limited or restricted by process or machine time is expected to produce 25% or more above standard.
- (7) Under the standard hour incentive plan, standards will be expressed in terms of time. The standard hour is the unit measurement for work performed. A standard hour is defined as the amount of work of the

specified quality which a qualified employee will produce in one hour, working at the normal performance rate of 100 percent under normal working conditions, with proper allowance for rest, personal needs and minor delays.

Group or individual incentives

Earnings opportunities under incentive systems may be based on the output of either an individual or a designated group. Individual incentives are most appropriate where each employee's work can be separately measured, and where operations are relatively independent; i.e., available work is not greatly dependent on the output of other employees. Group incentives, on the other hand, are most appropriate for "crew" operations in which a number of employees work together in completing a task. Here, group rather than individual output is measured, although workers within the group may still receive differential earnings, depending on the degree of skill or responsibility.

Some agreements offer individual earnings for some jobs, such as machine operations and bench operations, and group earnings on other jobs, such as assembly line work.

Some incentive systems may distinguish between direct and indirect incentives. Direct incentives are related to measurable output of production workers; indirect incentives are paid to such employees as material movers and maintenance workers, whose work tends to increase indirectly with increased output.

Most agreements do not specify whether incentives are individual or group. Of the 180 agreements that refer to the subject, 9 percent establish individual incentives and 36 percent, group incentives; the remainder refer to both. (See table 2.):

- (8) Incentive earnings on individual piecework prices shall be computed daily or at the end of the job, whichever occurs sooner, and in no case shall an employee's incentive earnings on individual piecework prices on any day or on any job be affected by such employee's earnings on the previous day or on the previous job.
- (9) In the application of the wage incentive plan to assignments, the company will establish such wage incentive groups as it determines are required for such purposes. It is recognized that following the establishment of a wage incentive group, the efficient operation of the business may make it advisable for the company to increase or decrease the number of employees therein or to withdraw or replace the employees assigned thereto.
- (10) Wherever possible, the incentive shall be established on an individual basis. In many instances, however, the individual's efforts are so closely connected with the efforts of others that it is impractical to establish a personal measure for him. In these cases, group incentive should be used.
- (11) On some jobs the employees work as individuals against their own rate, such as for machine operations

and bench operations. On other jobs the employees work as members of a group against a group rate, such as on assembly lines. In either case, the employees receive all of the labor savings as extra pay earned on incentive. In other words, all labor cost savings produced by performance over the standard goes to the operators as their reward for extra effort.

Changes in the incentive system

Because of changes in technology, methods of production, or products, it may become desirable or necessary to change the type of incentive plan; e.g., from individual to group, or piecework to standard hour, or to a different standard-hour plan.

Management ordinarily prefers flexibility of operations, including a right to change an incentive plan that has become inappropriate or inefficient. However, the company's right to introduce a new type of plan, or major changes in the current one, may be limited by the agreement.

A relatively small number (68) of agreements studied refer to changes in the type of incentive system. (See table 3.) The unilateral right of management to institute modification, or a different plan, sometimes with no recourse to the grievance procedure, is found in 38 percent of the provisions:

- (12) ... The parties agree that the plan in its entirety shall be determined and administered solely by the employer and the employer reserves the sole and complete right to determine whether this plan shall be continued, amended, modified or terminated as to any department or group of employees at any time during the term of this agreement and such determination shall in no way be the subject matter of negotiations, grievances or in any way construed as a negotiable part of this agreement.

The employer agrees that the plan, along with any changes or amendments, shall be made known to the employees and union representatives.

More than half of the 68 clauses provide for union and management to negotiate changes in plans. Under Western Electric agreements, if negotiations are not concluded within 90 days, the company may introduce the new plan and negotiations will continue:

- (13) The introduction into the shop of any member of the association of a piece work or other incentive system of wage payment for the purpose of increasing production and increasing the earnings of workers, if mutually agreed upon by the said member of the association and the union, shall not be deemed in violation of this agreement. This paragraph shall apply to changes in existing systems of wage payment as well as the introduction of new systems.
- (14) Any wage incentive plan, other than that herein provided, may be introduced by the company when and where in its judgment it is desirable to do so. Such wage incentive plan will be negotiated with the union

and covered in a supplementary agreement. If negotiations are not concluded within ninety (90) days after the company proposes the introduction of such wage incentive plan, the company may, if it elects, introduce the plan as proposed. It is agreed in such event that the plan will conform with company policy. If the company introduces such wage incentive plan without reaching agreement with the union, it is understood that negotiations between the parties on the supplementary agreement will be continued.

- (15) The company may during the life of this agreement develop a new wage payment plan or plans for present incentive operations. The company will advise the union of all steps it proposes to take during the development of the plan or plans. However, such wage payment plan or plans as developed by the company may be applied to any employee or group of employees only after notice to and consent of the union. . . .

Extending or withdrawing incentive coverage

Incentive-earnings plans seldom are appropriate for all operations in a bargaining unit; consequently, many employees under agreements referring to incentives work under a nonincentive or "daywork" pay system. Over time, one or both parties to the agreement may find it desirable to extend the incentive plan to additional jobs, or to withdraw the plan from jobs currently under the plan. For example, changes in job content may render an operation more suitable, or less suitable, for incentive payments. The addition of measurable and repetitive elements to a daywork job may suggest a change to incentive coverage; if, on the other hand, a repetitive job becomes highly automated, leaving the operator little or no discretion over the pace of production, an incentive plan may no longer be justified. Changes in employer or union policy, employee attitudes, the differentials between profits from additional output attributable to incentives, and the cost of administering the plans, also may influence decisions on the plans.

Extension of coverage. Provisions referring to extension of incentive coverage appear in 42 percent of the agreements dealing with incentive systems. (See table 4.) Nearly three-quarters of these provisions establish the action as solely the right of management:

- (16) The company shall have the right to continue present incentive systems and to establish new systems which permit the employees to earn additional amounts over guaranteed job rates.
- (17) Incentive system—hourly-rated employees in certain job classifications are eligible for increased earnings dependent on individual group productivity. Determination of incentive earnings shall be made according to procedures described in the *Manual of Time Study Procedures*. The company shall have the right to extend incentive system coverage to any uncovered section or department whenever such extension is considered desirable.

Of the remaining clauses, most provide that extension of incentive coverage is subject to joint union-management determination. A small number of clauses also give the employees who would be affected by the change voting rights or some other role in the decision to extend an incentive plan:

- (18) The present incentive system will be continued. However, a joint Management-Union Committee shall study the possibility of unifying the two plans presently in effect under the former agreement, and will study additional jobs in the plant to expand on the incentive system. No changes shall be made in the present system without mutual agreement of the Joint Committee. This committee shall meet within 30 days upon call of either party.
- (19) . . . Whenever the company proposes to the union that incentive rates be applied to operations on an hourly rate method of pay, the company will furnish and discuss in detail with the Business Agent, the Department Chairman, and the Committeemen of the Department involved, the proposed incentive application including the standards, the proposed work assignment, the proposed earnings and its effect on the employees involved in terms of displacement or transfers, so that the union and the employees will understand the full import of the proposed change. . . .

If the local union does not agree to recommend to the employees that the operation in question should be placed on incentive, the matter may be referred to the national officers of the union and to corporation officials in an effort to reconcile the differences.

After such discussions with the union the company may, if it so elects, convene a meeting or meetings of all the employees on the operation on which the company proposed the changes, for the purpose of making a detailed explanation of its proposal. The shop committeemen and the business agent shall be present and participate in any discussions which may ensue.

The company may, if it elects, request the union that a ballot be taken to determine the wishes of the employees on the operation as to whether they agree to the application of incentive. The union agrees, if such a request is made, that it will conduct such a ballot and that it will notify the company of the number of votes cast for and against the proposal

Both parties agree to be bound by the results of any such balloting and no new proposal with respect to the same operation nor any resubmission of the proposal voted upon may be made within a 12 months' period of the date of the last balloting, unless the parties otherwise agree. . . .

It sometimes is the stated policy to extend the incentive plan to cover as many jobs as possible, or practicable. To allay employees' fears of possible pay reductions, clauses may state that changes from nonincentive to incentive status will provide employees with earnings opportunities at least as great as previously afforded:

- (8) It is the intention of the employer to establish piece-work prices on jobs wherever practical. When a non-incentive job is changed to incentive, an incentive "hourly day rate" will be assigned to such a job, which will afford an incentive earning opportunity equivalent to or greater than the previous non-incentive rate.
- (20) The company shall have the right to change the basis of payment from hourly rates to piece rates or vice-versa. Piece rates on changes from hourly rates shall be set to enable the operators to average at least the amount of the hourly rate from which changed. Such changes will be subject to the same rules as set out in Section 3 on new and changed operations. An objection to a rate by the union shall be checked and answered as promptly as possible by the company. If for any reason there is to be an unusual delay, the local union shall be advised.

New jobs. In many industries, particularly those with rapidly changing products and technologies, new jobs constantly are created and old ones eliminated. The new jobs must be properly classified and integrated into the wage rate structure. If an incentive system is in effect, the decision to include or exclude new jobs from the system is necessary.

Of the agreements referring to incentive systems, 23 percent also refer to the treatment of new jobs.¹ (See table 5.) Nearly half of the clauses leave the decision on establishing new jobs as incentive or nonincentive up to management:

- (21) The company, at its discretion, may establish new incentive plans to cover new jobs on which the company is not required to establish incentive jobs not presently covered by incentive plans. . . .
- (22) . . . The company, at its discretion, may establish new incentives to cover: (a) new jobs; (b) jobs not presently covered by incentive applications; (c) jobs covered by existing incentives where, during a current 3 month period, the straight-time average hourly earnings of the employees under the plan are equal to or less than the average of the hourly rates of such employees.
- The company may establish new incentives to replace existing incentive plans when they require revision because of new or changed conditions resulting from mechanical improvements made by the company in the interest of improved methods or products, or from changes in equipment, manufacturing processes or method, materials processed or quality or manufacturing standards.
- (23) . . . The company . . . agrees that maintenance and extension of the coverage under the incentive system will be provided to the maximum practical degree, and that to this end the company will (i) develop and install incentive applications whenever and wherever

practical, and (ii) apply incentive standards to new or revised operations, which are suitable for incentive application as soon as possible and practical after work on such operation is begun. . . .

Withdrawal or exclusion from incentive plans. Clauses referring to the withdrawal of jobs from incentive systems appear in 24 percent of the agreements establishing incentives. (See table 6.) In practice, a change from incentive to nonincentive work may apply to a single job, or to the elimination of the entire incentive system of wage payment. As in extension of incentive systems, most clauses referring to withdrawal leave the decision to management:

- (14) The wage incentive plan herein described provides a method of determining the payments to be made to employees in accordance with the definitions, terms and conditions herein set forth. This plan may be applied by the company to any assignment whenever it determines that the same may be appropriate for such application. The application of this plan to any assignment may subsequently be withdrawn by the company whenever it determines that the same no longer is appropriate for such application.
- (6) The company recognizes the principles of incentive work; however, employees are not guaranteed incentive work and the company does not guarantee that any operations which are presently on an incentive basis or any operations which are put on an incentive basis in the future will remain on an incentive basis during the term of the contract.
- (24) It is agreed that under any incentive system established by the company no employee shall receive less than his base hourly rate of pay.

The sole right to establish, administer, and terminate incentive bonus plans, and the right to determine the work to which the plan shall be applicable, and to establish rates and prices for such work, is reserved exclusively to the company; except the company expressly agrees that for the duration of this agreement it will not cut or reduce incentive rates presently in effect wherever such incentive bonus plan is used. At the discretion of the company any operation may be, at any time, included or excluded from the plans and working places and may be started or stopped at the conclusion of a given contract in accordance with the company's needs or requirements. . . .

In a minority of the provisions, approval of the union or the affected employees is necessary for a change to nonincentive operations. Some multiplant agreements leave the decision to the local parties:

- (25) . . . (a) In addition to basic hourly rates, wage incentives will be paid in certain departments on the same basis as heretofore subject to being removed on 60 days' written notice to the company and subject to a majority of the employees involved and their Shop Steward, if such steward is employed in unit involved, voting in a closed ballot to remove same at the end of

¹ The figure may be understated, since clauses referring to the extension of incentive systems may not specify new jobs but be intended to apply to them.

said period. Subsequent votes may be held in like manner on like notice to remove same. Only those employees who have been working in the shop at least 30 calendar days prior to the election shall be eligible to vote.

(b) Incentive plans may be installed in additional shops or departments exclusive of maintenance and construction subject to being removed by a vote to that effect by a majority of the employees involved and their shop steward, if such steward is employed in the unit involved conducted 60 days after receipt of petition of the employees in the unit involved or being removed at a subsequent time. . . .

(c) Following the removal of an incentive plan in a shop or department under either (a) or (b) above, the company will not again install an incentive plan in that shop or department for a period of 12 months except by mutual agreement. After 12 months, the company may again install an incentive plan under the conditions of (b) above. . . .

- (26) After the effective date of this agreement, a job that has traditionally been known as a day-rate job shall not be transferred to an incentive system of pay nor shall a job that has traditionally been known as an incentive job be transferred to an hourly rate except by agreement between the company and the union, or as the principle is modified in a local supplementary agreement.
- (27) The installation or abolition of an incentive plan will be subject to local agreement.

The complete termination of an incentive system seldom is mentioned in an agreement. Under some provisions, however, management's right to decide on jobs eligible for incentive coverage could lead to elimination of the incentive plan. A few agreements are more explicit. A "buyout" arrangement may be negotiated, which usually compensates incentive workers for pay losses resulting from a change to a nonincentive pay system:

- (28) If the company discontinues an incentive system, it shall negotiate with the international union the buyout method that shall be used for discontinuing the system. If the company and the international union are unable to agree upon the amount or method of buyout, this matter shall be submitted to arbitration upon the request of either party.

Penalty for defective work

Under an incentive system, the emphasis is on quantity of output; at the same time, a careful check of quality must be maintained. An incentive worker may be exceptionally fast, but produce excessive amounts of damaged goods or scrap. Some output may be a total loss, and other output may be reworked or marketed as "seconds." If the employee is at fault, the spoiled materials usually will not be counted in computing incentive earnings. (The company, however, bears the

loss if the damaged product or scrap is entirely due to faulty materials or machinery.)

Of the 442 incentive provisions, 57 or 13 percent deal with the question of defective work. Many clauses of this type are in the nonelectrical machinery industry:

- (29) Employees will be credited only with acceptable quality work performed and will be notified of the occurrence of faulty, scrap or rejected work, that an adjustment will be made from the nearest weekly pay period following the determination of such faulty, scrap or rejected work. Standard hour value for the faulty, scrap or rejected work shall be deducted from the employee's daily total earned hours, except in no event will these adjustments reduce his earnings below his daily guarantee. Charge for faulty, scrap or rejected work must be due to carelessness or negligence on the part of the operator involved.
- (30) Incentive earnings will be paid only for good and acceptable work completed. When defective work is produced and where it can be determined that an employee has produced faulty work due to carelessness or faulty workmanship, the time taken for such work will be included in the employee's taken time and the faulty or defective units produced deducted from his credited production against the established incentive standard, thus reducing incentive earnings for that period accordingly. . . .

The employee charged with producing defective work or scrap might be paid at the guaranteed or day-work rate. Rarely, the cost of correcting the work is deducted from the guaranteed rate. Some clauses, as a protection, give employees the right to examine the bad work or scrap, or limit the time during which penalties can be imposed:

- (31) All labor performed by the utility employees, simonizers, polishers and washers on either a flat rate basis or an hourly rated basis, which is found to be unsatisfactory labor, shall be done over in a satisfactory manner by the employee or employees, doing the work in the first instance without further pay or charge therefore. Time consumed on work done over shall be deducted from the minimum weekly guarantee. In the event the employee doing the work in the first instance is absent, the amount paid the employee doing the same work over will be deducted from the first employee's weekly pay, not to exceed the original amount paid.
- (18) . . . When an employee working on an incentive operation produces spoilage which is the fault of such employee, his/her incentive earnings on such operations shall not include credit for such spoilage, and the adjustment will be made from future incentive earnings provided the spoilage is detected within 30 days after such work is completed.

A reduction in earnings is not the only penalty that may be imposed for inferior work. Repeated offenses sometimes will lead to disciplinary action, or outright dismissal:

(32) An employee shall be responsible for the correctness of his work and the allowed hours will not be paid for work improperly performed. However, the company will not charge the worker for scrap. It is further agreed that the repeated making of an inordinate amount of scrap or improper work which is the worker's fault, may be just cause for dismissal. An employee shall not be responsible for, or suffer a loss of incentive earnings on, work performed per specific instruction by a supervisor when such work is subsequently found faulty.

Underperformance

A worker may fail to produce enough, under an established incentive system, to exceed the minimum or guaranteed level, or exceed it by very little. This may be because the worker lacks manual dexterity or has failed to master the needed skills. It occasionally may be deliberate—the result of some real or imagined grievance. This underperformance defeats the purpose of the incentive concept and is explicitly dealt with in 10 percent of the agreements referring to incentives. (See table 7.)

Although specifically mentioned in a minority of the clauses, it may be assumed that an investigation is generally necessary to determine the causes of the poor performance and the remedy. If all or most of the operators consistently fail to earn incentive bonuses, the fault may lie with the incentive plan rather than with the operator. The company may enlist the union's cooperation in the investigation and may defer disciplinary action until the study is completed:

(20) Where new or changed operations, conditions, change in method, machinery or materials are introduced into the factory, the existing applicable class wage shall continue in effect, but the company shall have the right to adjust the piece rate. If, after a reasonable learning period, the operators thereon fail to reach the established level of earnings on the job, the company and union, at the request of either party, shall make a joint investigation to determine the cause of such failure, since, under the foregoing circumstances, a maintenance of level of earnings can normally be expected. In the event the parties cannot agree, the matter may be grieved and may be submitted to arbitration.

(10) Incentive earnings shall be unrestricted, however, abnormal earnings may be investigated in accordance with the provisions of the wage plan agreement. No disciplinary action will be taken by the company with respect to such abnormal earnings until such investigation is completed.

The results of the investigation may indicate what further measures should be taken; for example, a transfer of the employee to a nonincentive job, further training, or settlement of the employee's complaint. Continued inadequate performance often can result in discharge:

(33) When an employee is charged only with inefficiency, such employee and the union shall have 10 work days written notice thereof. If the inefficiency shall not have been corrected within 10 work days from the period of said notice, such employee (if hourly-paid) may be subject to discharge. This discharge shall be subject to the grievance procedure. If such employee is a piece-worker and, if the inefficiency shall not be corrected within an additional 4 weeks, the employee shall be subject to discharge. During this 4 weeks period the employee may elect to stay at his or her machine or move to another. The 4 weeks period will only be counted when the employee in question is doing his or her type of work. Repetition of the same cause of complaint within 60 calendar days, shall be reason for discharge. After 60 work days from the date of the written notice, if no further action has been taken, such notice shall expire and become void.

(34) An experienced employee whose lack of normal effort causes his earnings to fall below the bottom of the rate range, which is the 80 unit hour, shall be subject to the disciplinary procedure. When the union and the company agree that an employee is unable to perform the job in the normal manner because of a lack of ability (lack of ability means never having made over the 80 unit hours in that particular job classification) the company will attempt to find a job that said employee can perform efficiently in line with his seniority, qualifications and ability. Failure on this succeeding job would result in this employee's termination.

Occasionally, employees are permitted to underperform, usually by mutual consent of company and union. If it is determined that underperformance is deliberate, rather than the result of inadequate skills, the company may be allowed to withdraw the guaranteed or minimum rate. Agreements also may make exceptions for handicapped or older workers who cannot work at the usual pace and are willing to accept reduced earnings:

(35) Whenever an employee or group of employees are obviously failing to put forth reasonable effort and are engaging in unjustifiable reduction of production while a wage guarantee is in effect, the president of the union or his official representative will be notified by the Labor Relations Department. Upon receipt of such notification, the president of the union or his official representative will make an immediate effort to correct the failure of the employee or group of employees to put forth reasonable effort and to discontinue the unjustifiable reduction of production. At the expiration of 48 hours from the receipt of such notice, if it is apparent that reasonable effort has not been restored and employees are continuing in an unjustifiable reduction of production, the president of the union or his official representative will agree that the guarantee should be withdrawn, and the company may then withdraw the guarantee.

(36) No piece worker shall receive less than the craft minimum except those who are deficient in production by reason of their age or physical condition or other-

wise substandard for good and sufficient reason. The wages for such employees shall be agreed upon between the employer and the union.

(37) Upon the prior consent of joint council... an employer may pay a piece work operator who is deemed substandard in production a wage below the minimum for operators. . . . Such consent may only be granted after investigation by joint council upon the written application of the employer which shall contain the name and record of any operators the employer wishes to designate as substandard and provided further that, in the opinion of joint council, the following prerequisites have been fulfilled:

- i) that the operator is receiving a fair and proven piece rate in that section; and
- ii) that operators doing the same work at the same rate are earning average wages which are substantially above the craft minimum; and
- iii) that the operator for whom the substandard designation is requested has not been moved from operation to operation, and has received a fair share of regular and familiar work.

(38) Employees whose earnings are substantially below the average for their particular operation or section and who have demonstrated that they are unable or unwilling to attain the average of the section or operation are exempt, if the employer and the union mutually agree.

Incentive information to the union and employees

Communication is essential to the successful operation of grievance procedures, seniority systems, or nearly any other system set up under an agreement, and the incentive plan is no exception. Possibly because many negotiators accept necessary information flow as a "given," it is often not formalized in the agreements. Of the 442 agreements citing incentives, fewer than 40 percent (174) require the employer to provide specific incentive information to the union.²

	<i>Workers Agreements (thousands)</i>	
Total with incentive provisions	442	2,880.2
Incentive information:		
To union	174	831.7
To employees	131	585.6

The specified information varies, and often includes the details of the incentive plan, the current incentive rates, or changes in the rates:

² The prevalence, limited to required information, excludes some agreements under which the union participates in establishing or grieving incentive rates, but which do not require specific information.

(39) The company will explain to the union committee involved the details of the new or revised incentive or extra pay plan.

(28) The company will supply the international president of the union with a copy of its incentive systems and other necessary and pertinent information which may be requested. Any such incentive systems, and any future revisions thereof, shall be in accordance with the provisions of Section 1 of this Article. If the international union finds that the company's incentive system does not meet the provisions of Section 1 of this article, it may review the incentive system with the company.

(40) In the month of November of each year the employer shall furnish the union with two lists (one copy to the union office and one copy to the union steward) of the hourly rates and piecework rates paid to the employees subject to this agreement. At the same time the employer will post in the appropriate departments the piecework rates and minimum hourly rates applicable to those departments. Within 2 weeks after any changes in such hourly rates or piecework rates, the employer shall post any such changes in the appropriate departments and forward two copies of such changes to the union (one to the union office and one to the union steward).

The proportion of agreements calling for information to the employees is somewhat smaller—just under 30 percent (131) of the incentive provisions. A requirement for posting incentive rates frequently appears in agreements. Individual employees often are provided information on expected output, computation methods, or payroll records:

(41) With each pay check each piece worker shall be supplied with a record that discloses in detail the information contained in the company's original payroll record pertaining to such worker's earnings, including the style number or numbers, the operations performed, the original rate (not including any correction thereof) for each operation, and the number of units produced. On demand, piece work records shall be made available promptly to the workers or an authorized union representative so that they may review the accuracy of piece work workers' pay computations.

(42) Piece rates, bonus rates, incentive rates, and/or values will be posted at all times, and daily earnings posted as promptly as possible after the work is completed.

(16) Incentive rates shall be made available for inspection by the employees affected in the various departments.

Chapter 3. Rate-Setting and Resetting Procedures

The average duration of major collective bargaining agreements is nearly 3 years. During this time, many events are likely to occur that affect day-to-day incentive operations. For example, the nature of an incentive job might change, making the applicable rate inappropriate for the revised job. Therefore, labor and management often negotiate procedures under which the company, union, or employees may effect, negotiate, or request appropriate changes during the term of an agreement. (See tables 8 and 9.)

Management rights

Clauses that permit management to revise rates are present in 46 percent of the 442 agreements having incentives. Contracts in the primary metals, electrical machinery, and machinery industries account for half of the provisions permitting management to alter incentive rates. (See table 8.)

To accommodate both management's need to adjust rates as changes occur during the term of an agreement and the union's desire to limit management prerogatives, over 96 percent of the rate-change provisions set preconditions for the revisions. One restriction, found in nearly 90 percent of the contracts that permit company rate revisions, is that there must first be a change in job content. In some instances, the change must be of a certain magnitude. One significant change may be sufficient, or several smaller changes may have to accumulate over time:

- (43) Regularly established piecework rates are guaranteed against change unless there is a change in methods or equipment to the extent of five percent or more.
- (44) Changes in the company's Catalog of Permanent Prices will not be made arbitrarily or without justifiable reason, or just because an employee's bonus earnings have been high. For example, the introduction of new equipment which involves a variation in job content or a change in operational methods from the time the prices were last established may be cause for changing a price or establishing a new price

Management may revise a rate, should a clerical or computational error be found, in 43 percent of the contracts permitting rate revisions. Frequently, management's right to change an incentive rate due to an error and due to a job content change appear in the same agreement:

- (45) A permanent established rate may be changed to correct an arithmetical or clerical error in setting the rate. Such rate change may be made at any time the error is disclosed, up to 1-1/2 years after the erroneous rate was set. The question of whether an error is arithmetical or clerical shall be subject to arbitration. Permanent rates, once established, will not be increased or decreased, unless such action is justified by:

- Change in material
- Change in tool or equipment
- Change in methods
- Change in quality standards
- Change in feeds and speeds
- Change in design
- Change in job by adding to, or removing work.

- (46) A wage incentive rate or allowance will be changed to correct a clerical error. Such errors include, but are not limited to:
 - (a) Errors in computation, such as misplaced decimal points.
 - (b) Inclusion in the wage incentive rate or allowance of operations not required.
 - (c) Selection of incorrect time values.
 - (d) Transposition of numbers.

Management's right to revise incentive rates is rarely unlimited. Only 4 percent of the contracts permit rate adjustments to be made solely at management's discretion. Since unions negotiate the original wage rates, they ordinarily do not favor subsequent revisions in which they have no voice. It is, therefore, understandable that so few agreements concede to management the unrestricted right to adjust rates. One union—the Glass Bottle Blowers Association—is an exception. It is the employee bargaining agent for 6 out of 8 contracts that permit a company the unlimited right to alter incentive rates:

- (47) The company shall continue its present practice of periodically reviewing and, when necessary, revising its incentive systems and incentive bonus rates.

Lowered rates and earnings opportunities

Although management has the right to change incentive jobs and rates in many agreements, in order to protect incentive workers' rates while a contract is in effect, 1 out of 5 (83) incentive agreements prohibit or limit reductions in rates or earnings opportunities.

At least two approaches are taken to achieve this purpose. Some provisions flatly ban lowering incentive

rates for the duration of an agreement while other clauses require that average hourly earnings or percentages above standard be maintained under the revised rate:

- (48) Rates for new operations, changed operations or new fabrics shall be fixed by mutual agreement between the employer and the union. The new rate which shall be agreed upon as soon as is practicable shall maintain the section's average hourly earnings.
- (49) There shall be no reduction of wages or reduction of adjusted prices (piece rates) during the term of this agreement.
- (50) For the term of this agreement, when a new incentive is developed to supplant an existing incentive plan, the incentive earnings . . . expressed as a percentage above the . . . standard hourly wage scale of regularly assigned incumbents of the job as of the date the new incentive is installed shall not be less than the percentage of incentive earnings . . . received by such incumbents under the replaced incentive plan during the three months immediately preceding its cancellation provided the average performance during such three-month period is maintained.

Union and employee rights

Employees and their representatives may feel that upward revisions in incentive rates are warranted because of change in job content or for other reasons. For example, the union may want to maintain a differential between incentive rates and the Federal minimum wage rate and may negotiate the right to request a rate change if the Federal minimum is increased.

The right of unions and employees to initiate requests for incentive rate changes is far less prevalent (18 percent) than the right of companies to revise rates. However, references to both union/employee and management rights provisions are concentrated in the primary metals and machinery industries. (See tables 8 and 9.)

Although contract language may require a company to revise incentive rates, it might inadvertently neglect to do so. Many of the provisions that allow requests for rate changes (other than to correct errors) apply when a firm does not revise a rate as it contractually should. The employee request may be of an informal nature or an official complaint:

- (51) In the event of an increase in the minimum rates resulting from an increase in the Federal minimum wage as provided [above], the union shall have the right to request a commensurate upward adjust- of all piece rates and earnings of piece workers in any shop covered by this agreement
- (52) In the event management does not adjust an incentive . . . the employee or employees affected may, if initiated promptly, process a complaint under the grievance procedure of this agreement requesting that

an adjustment to the incentive be installed in accordance with the provisions of this subsection. If the grievance is submitted to arbitration, the decision of the arbitrator shall be effective as of the date when the complaint was initiated.

Under 30 agreements, an employee or a union representative may request a rate change to correct an error, compared with the 87 agreements that accord the right to management:

- (53) In case a clerical error is discovered on any pattern, the clerical error will be corrected and adjustments paid effective with the date on which the complaint was filed. In case a basic (wrong element assigned) error is discovered on any pattern, the error will be corrected and adjustments paid effective with the date on which the complaint was filed.

Union role

Unions participate in the rate setting and resetting process in various ways and at differing times. After developing an adjusted rate, for example, management may discuss the revision with the unions, or it may bargain with the union over the adjusted rate, prior to a rate's installation. In other instances, a union may enter the rate revision procedure only after the new or revised rate has been installed, as when it takes exception to the rate and files a grievance.

About half the 442 agreements with incentive plans refer to the manner of union participation in the incentive rate setting process. These are concentrated in the primary metals, apparel, and electrical machinery industries. (See table 10.)

Relatively few clauses, however, mention union participation during a rate's development. Only 15 percent of the provisions dealing with the union's role require union-management discussion of rates, and only 11 percent require bargaining. Discussion is most common in the primary metal and electrical machinery industries, and negotiation in apparel and primary metals contracts:

- (54) Wage incentives are to be used, where practical in the opinion of management, and incentive rates will be subject to discussion between the union and the company at any mutually convenient time.
- (55) At least 6 days before the proposed effective date of any revision in a piece rate or change of workloads of a piece work or day work job, the company will notify the union of same and furnish necessary information (in a form agreed upon by the parties) to enable the union to understand the nature and extent of the change and its effect upon employees involved. Upon request of the union, the company will meet to discuss the proposed change.
- (52) The parties at each plant are free to undertake negotiations for possible adjustment of existing incentives. Either a company or a local union may initiate

negotiations by 10-day notification in writing to the other party.

More often, clauses prescribe the traditional avenue for complaints concerned with day-to-day operations—the grievance and arbitration procedure. In some instances, the union is advised of the rate revision prior to its installation but has no voice in negotiating or discussing the rate:

- (56) Incentive rates shall be established in accordance with the following procedure:

The company will develop the proposed new incentive. The proposed new incentive may be installed by the company, and the employees affected may at any time after 60 days, but within 120 days following installation, file a grievance alleging that the new incentive is not based on an equitable incentive standard which reflects the amount of work a normal qualified employee or group of employees working efficiently at normal given period of time. Such grievance shall proceed under the grievance and arbitration procedure of this contract. . . .

- (57) When new or changed piece work or incentive rates are applied, where piece work or incentive rates are already in effect for a particular class of work, management will give or make available to the Shop Committee upon request a copy of the time study records or proposed rates. The employee or employees affected may while the job is running, but in no case longer than 15 days nor less than a total of 20 hours running time from its beginning, file a grievance alleging that such rate does not provide normal opportunity for earnings in excess of the base hourly rate of the job. Such grievance shall be adjusted under the grievance and arbitration procedure of this agreement. . . .

Some agreements limit the complaint process to just the grievance phase, specifically prohibiting arbitration. This restriction is found in 17 percent of the union role provisions and is usual in the electrical machinery industry. Slightly over half of the 29 electrical machinery provisions prohibit an incentive rate complaint from being heard by a neutral:

- (58) A grievance arising under the provisions of this article shall be subject to the provisions of [the] grievance procedure but neither the grievance nor the provisions of this article shall be subject to the [arbitration provisions].

Some contracts establish an accelerated grievance procedure, in which a complaint normally is initiated beyond step 1 of the process:

- (59) . . . an employee may allege a necessity for change in the plan, based upon a factually supported claim that the plan does not provide equitable incentive compensation over and above the standard hourly wage rate in proportion to the employee's actual performance over and above the performance level at which incentive

opportunity is provided. Any determination of equitable incentive compensation through the procedure for grievance settlements, including arbitration, shall be made in accordance with the payment policies and work measurement procedures for the installation of standard hour incentive plans. . . . Any such grievance shall be filed in step III of the grievance procedure of this agreement within 30 calendar days following the close of the trial period.

- (60) Should agreement not be reached, the proposed incentive may be installed by management and at any time after 30 days, but within 180 days following installation, a grievance may be filed alleging that the incentive does not provide equitable incentive compensation. Such grievance shall be filed in step 2 of the grievance procedure. . . .

Rather than following the grievance procedure, a complaint may proceed directly to arbitration. Such clauses are usually found in agreements that also refer to prior labor-management discussion or negotiation of rates:

- (61) In the event the company changes a job currently paid on an hourly basis to an incentive basis where there is no base rate provided for . . . the proper base rate shall be a matter of negotiation, and, if necessary, arbitration.

- (40) When a job is to be changed from a day work to a piece work basis or when a new job is established which is to be on a piece work basis, the employer shall immediately notify the union agent and the shop steward and then the following procedure shall apply: There shall be a 2 week trial period and the employee shall be paid on the basis of the piece rate determined by the employer. At the end of the 2 week trial period the piece rate set by the employer may be discussed, and if mutually satisfactory, it shall stand. If the piece rate is not agreed upon, the matter may be submitted to arbitration, the piece rate initially established by the employer to remain in effect pending the outcome of this arbitration.

Incentive committee

Nearly one-fourth of the agreements having incentive provisions establish one or more incentive committees; most are concentrated in the primary metals, apparel, and electrical machinery industries. More than half of the workers covered by agreements creating incentive committees are employed in the primary metals industry alone. (See table 11.)

Most provisions establish joint committees composed of union and management representatives. Some clauses state the exact number of employer and employee representatives to be appointed while others place an upper limit on the number of representatives. Some provisions only indicate that each party designate an equal number of persons. A provision rarely specifies the titles of committee members:

(62) . . . a committee consisting of an equal number of representatives of the union and the association . . .

(63) If a complaint of an inequity on any rate is made by [the company] or the union, a study of the rate will be made by a special joint committee composed of the chair person of the bargaining committee, president of the union and the director of industrial relations or their appointed representatives and they shall implement changes in the rate necessary to resolve the complaint.

(64) An incentive Review Committee will be established and shall consist of not more than 3 company representatives designated by the company and 3 mine employee representatives designated by the union. . . .

A few agreements, typically those involving the Steelworkers, establish two levels of joint committees. One group operates at the plant level and the other at the company level:

(28) . . . There shall be one joint incentive committee for each plant and one joint incentive committee for each company. The size and composition of such committees shall be determined by the co-chairmen of the individual company negotiating committees, and the company level committee shall be chaired by them.

A minority of the clauses establish committees of union representatives. Clauses requiring that employee representatives be chosen by fellow workers from sections performing different kinds of incentive jobs are prevalent in apparel contracts. Provisions in primary metals agreements often mention groups having two permanent committee members and a third member from the section where the rate complaint originates:

(65) All piece prices shall be settled between the employer and a Price Committee of not less than three nor more than five chosen by the employees in each establishment and representing, as far as possible, different branches of the work.

(50) In the interest of effective administration of incentives and incentive grievances, a Plant Union Incentive Committee is established in each plant. The Committee shall consist of three members, two of whom shall be permanent members of which one shall be chairman. The third member shall be the grievance committeeman from the area involving the subject incentive application. Where such application involves more than one area, the union shall determine the appropriate grievance committeemen. The local union president shall appoint the two permanent members

Over two-fifths of the incentive agreements establishing committees permit the committee to participate in the determination of rates. Most committees in the apparel industry are created for this purpose; a union committee negotiates with a management representative on rates. In other industries, the clauses sometimes

require the company to recommend or establish the rate subject to joint committee or worker committee approval:

(66) The standard or piece rate will be established by the company and agreed upon by a joint company-union committee.

(67) There shall be established in the shop of every member of the association a Price Committee selected by the workers under the supervision of the union, and all piece work prices shall in the first instance be adjusted upon the premises of the employer between such committee and the employer or his representative.

(44) Prior to establishing changes in the Catalog of Permanent Prices, the company will notify the union and meet with the union's three-man Contract Bonus Committee, and at such meeting or additional meetings, if necessary, the company shall furnish to the Contract Bonus Committee such information as shall be reasonably required to enable the committee to understand how such changes were developed. In the event of a disagreement between the company and the Committee as to price changes, the Committee may request a meeting with the general manager, and a meeting will be scheduled by the general manager with the Contract Bonus Committee in an effort to resolve the difference.

More than one-third of the agreements referring to incentive committees designate the groups as problem-solving mechanisms (study committees). This function is most often performed by committees in the primary metals industry. Clauses range from specific to vague about the topics to be looked into, the frequency of meetings, and procedures to follow if a committee cannot come to a solution:

(68) The company agrees to meet with the Union Incentive Committee at least every two months in an effort to continue the studies on those lines which can support an incentive operation.

(69) Both of the parties hereto agree that a uniform system of settling piece rates will increase the stability of the industry, eliminate a major cause of dispute and grievances and will foster the efficient production of apparel. The parties, therefore, agree to appoint a Special Committee, composed of three representatives of the association and three representatives of the union, to study, devise, and establish by their unanimous agreement, a uniform system of settling piece rates on such consideration as the said Committee shall find necessary or advisable. Such Committee shall meet within 30 days after the execution of this agreement, and from time to time thereafter as often as necessary to accomplish its purpose. The Committee shall have the power to make such investigations and employ such experts as in its opinion will facilitate the establishment of such a system. The cost of such investigation and experts shall be shared equally by the parties hereto.

(25) The company recognizes that need for mutual understanding toward an equitable application of the incentive plan and with this in mind an Incentive Committee shall be appointed by the union, consisting of three members, including the steward of the affected group, who shall meet with a management committee made up of a representative of the industrial engineering department, the general superintendent of the department involved and a manager of manufacturing department, at monthly intervals or more often if necessary. This Committee shall earnestly strive to solve those problems in incentive areas such as recommending priority on remedial work required in areas where incentives are in effect, reviewing questions from groups regarding incentives in their areas, reviewing progress where timing is important, reviewing new plans before application, or other problems which might arise.

(70) The Study Group will operate in good faith and will at all times aspire to fulfill the basic objective "to recommend a plan which will provide sufficient incentive to increase productivity while safeguarding earnings opportunities."

Committees sometimes are an integral part of the grievance procedure, initiating or resolving grievances. Generally, union committees or the union representatives or joint committees, formed for some other purpose, act as grievance initiators. Joint committees often function as resolvers of grievances. All contracts in which an incentive committee initiates grievances are found in the primary metals industry:

(71) . . . If agreement on the new incentive rate is not reached, the employee or employees affected, through the Incentive Committee Chairman if they desire, may at any time after 30 days worked after it is installed, but within 60 days worked following the date of installation, file a grievance in accordance with the "Adjustment of Differences" procedure of this agreement, alleging that the new incentive rate does not provide an equitable incentive earnings opportunity as compared to the earnings opportunities for comparable work in plants of its competitors in the district. The Chairman of the Union Incentive Committee shall be exclusively responsible for processing grievances concerning alleged violations. . . .

(58) When the union representative and the section chief involved determine through informal discussions that a grievance involves the adequacy of a wage incentive rate or allowance, such grievance shall be presented to a Joint Wage Incentive Grievance Committee If the committee cannot satisfactorily resolve the grievance, and the union wishes to process it further, the grievance shall be presented at step 5 as provided in [the grievance procedure].

The calculation of piecework earnings may, at times, be complicated. To minimize difficulties, two apparel agreements establish a committee to assist in making incentive computations:

(72) In view of the fact that the additional payments provided for . . . (hereinafter referred to as "on-the-clock payments") at times may lead to complicated calculations, it is agreed that a committee . . . shall be established for the purpose of assisting the respective shops in converting the additional "on-the-clock" payments to piece workers into a percentage without reduction in their earnings, provided the employer and the workers in the shops agree to such change. . . .

Temporary rates

Time and study are needed to develop a new incentive rate or to revise one already in effect; work, of course, must continue while a permanent rate is being developed. One-third of all incentive agreements provide for the use of temporary rates. (See table 12.) Two-fifths of the clauses that establish temporary rates also set conditions for continuation of or permanent adoption of the temporary rate. By far the most common stipulation applies if an employee voluntarily maintains a substandard level of performance while on temporary rates:

(50) In case an employee receiving a special hourly interim allowance voluntarily maintains a performance appreciably below that of the three months immediately preceding cancellation of the incentive plan, after notification to such employee and the grievance or acting grievance committeeman representing the employee affected, application of the special hourly interim allowance may be suspended during such further portion of the interim period as the lower rate of performance voluntarily is maintained.

Few agreements allow a temporary rate automatically to become permanent. These fall into two categories—the temporary rate becomes permanent after either a number of days have elapsed or if no complaint is filed against it:

(73) Temporary rates shall be permanent after 30 working days unless extended by mutual agreement.

(74) A piece-work rate shall be considered a temporary rate subject to adjustment by the company until such time as it is signed by the manager of methods or the expiration of 45 working days from the date of the study, whichever occurs sooner. At the end of such period, it will be a permanent rate. . . .

(75) After 5 days of actual work on the job from the date incentive rates are established, the incentive rate then prevailing on the job shall become permanent, unless otherwise mutually agreed between the company and the Bargaining Committee or unless a grievance has been filed in writing as to the particular rate. On new machines or processes a period of 20 days' actual work on the job shall apply, instead of the 5 days above provided.

Employees working under a temporary or interim rate want a new rate quickly developed if it will provide a greater earnings opportunity. To encourage the

prompt setting of rates, some unions bargain for a worker's right to refuse to continue working on unrated jobs after specified period:

- (76) If a temporary or permanent rate is not set on a new revised job within 20 working days, the employee shall have the right to refuse to perform this work and shall not be discriminated against for such refusal. In such case of refusal to work on jobs on which a temporary or permanent piecework rate has not been set within 20 working days, such employee will be transferred to another job providing work is available in his or her or another department.

Trial period

To determine the on-job applicability of a rate, management may select an employee to try out the rate under normal working conditions. A trial period is included for this purpose in 29 percent of all incentive agreements.

	<i>Agreements</i>	<i>Workers (thousands)</i>
Total with incentive provisions	442	2,880.2
Trial period	129	700.7
Timing of challenges to new or revised rates	104	696.5
Retroactivity of successfully challenged rates	154	820.7

The degree of detail varies greatly in clauses mentioning a trial period. Some provisions are vague about the duration of a rate's testing—a reasonable period—while others are quite specific—30 to 60 days, as a rule. Clauses sometimes state a special rate of pay for an employee who acts as a rate tester:

- (77) When a trial period is required, the proposed changes will be accepted for six weeks (or longer by mutual agreement) from the time the new job assignment is actually installed. During the first four weeks of this period, employees on the new assignment will be paid the higher of either the proposed rate for the job or their individual average hourly earnings for the four weeks immediately preceding the start of the trial period, or a more appropriate mutually agreed-upon period; or the group average hourly earnings for the job classification involved if an individual worker has no earnings in that classification.

During the first four weeks of the trial period, the company agrees to check the actual operating conditions against the standard specification for the job; and further, agrees that if the operating conditions differ substantially from the standard specifications, then the first-week period of trial period and pay guarantees will be extended until the differences are corrected. During the final two weeks of the trial period, the employees will be paid at the proposed piece rate, or the hourly rate.

Timing of challenges

Of the 442 incentive agreements, 24 percent are concerned with the time during which new or revised rates may be challenged. Many clauses do not permit challenges during a trial period. Others set the timing for a rate challenge between two time periods or within a specified number of days from the rate's effective date:

- (78) . . . In the event that the employer sets a new or changed piece-work rate or incentive work standard, such rate or standard is not subject to the grievance or arbitration provisions of this agreement until the trial period . . . has been completed. After such period has elapsed, either the union or any aggrieved employee may, within 30 days after notification of the said trial period expiration file a grievance against the said new or changed rate or standard. Any grievance against the new or changed rate or standard which is filed within the trial period . . . or which is filed more than 30 working days after the expiration of the trial period . . . shall not be subject to consideration.

- (11) Any grievance directed to a base rate or incentive established or changed by the company under this article shall not be filed until the complained-of base rate or incentive has been in effect for a trial period of 60 calendar days.

- (79) Any protests involving changes in incentive rates must be filed as a grievance within 5 days after such notice of change. Otherwise the change shall be deemed approved.

- (80) The union may, at any time after 30 days but not later than 90 days following the effective date of a new incentive, initiate a grievance regarding such incentive, in which event such grievance shall be handled in accordance with the procedure . . . for the adjustment of grievances. If a trial or experimental period has been agreed upon, the applicable time limit for initiating a grievance regarding such incentive shall apply as of the end of such trial or experimental period.

Retroactivity

Thirty-five percent of incentive contracts address the question of retroactivity, which arises at two points in the rate setting and resetting process. One case involves working under a challenged rate while a complaint is being processed. If the restudy is resolved in favor of the aggrieved party, a new rate is set retroactively to replace the successfully challenged rate. In another instance, a permanent rate may not be developed but management wants work to continue. Therefore, an employee works under a temporary rate, and the permanent rate is paid retroactively:

- (81) If it is determined by the grievance and arbitration procedure herein provided that any rate or time standard change was unfair, employees in the employ of the employer at the time such determination becomes final shall be granted an appropriate pay adjustment retroactive to the date of such rate or time standard

change, but in no event retroactive to a date earlier than 2 weeks prior to the date on which a grievance concerning that rate of time standard change was filed.

- (82) If, after a reasonable trial period following the establishment of an incentive rate, there is dissatisfaction regarding the same, the union may request that a new time study or evaluation of such job be made and a member of the union who is an employee of the company, or a representative of the international union, may attend the study while it is being made. Any adjustment or change of rates agreed upon, or established thereafter, shall become effective not later than the date the original grievance or request was presented in writing.
- (83) Workers shall work on garments for which piece work rates have not been finally settled. When piece work rates for new operations are finally settled, such rates shall be retroactive to the inception of the work.
- (84) Incentive jobs without rates may be given an estimated rate by the companies until a permanent rate has been issued. When such permanent rate is issued an operator shall receive the permanent rate, except that for the period from the setting of the estimated rate to the issuance of the permanent rate he shall receive the higher of such rates.

Rates for new and transferred employees

A usually unavoidable impediment to output is the hiring or transferring of inexperienced employees into a group incentive operation. The generally slower pace of these workers interferes with the performance of regular group members and lowers their production. Newly hired and transferred employees usually require a training period to familiarize themselves with their assignments before they are fully proficient. During the period, the new employees are usually paid a minimum or guaranteed rate. Employees transferred to incentive work, on the other hand, are likely to have their rates related to the rate they received on their previous jobs.

Transfer rates. There are three kinds of transfers involving incentive employees that a company can make, given a particular need to reallocate its work force: Dayworker to incentive job; incentive worker to day-work job; incentive worker to a different incentive job. These potential movements of employees, often temporary, are accompanied by a complex assortment of transfer rates in collective bargaining agreements.

Over 2 out of 5 contracts covering incentive jobs have transfer rate provisions. (See table 13.) Most such provisions are concerned with temporary reassignments. References to both permanent and temporary transfer rates often are present in the same agreement.

The intent behind temporary transfer rates often is to guarantee employees an earnings opportunity equal to that of their permanent jobs:

- (1) Where an employee is regularly assigned to piecework based on seniority, and at the direction of management is taken off such piecework assignment and is temporarily given work not part of his regular assignment under conditions where such regular piecework assignment would normally be performed by such temporarily reassigned employee during the period of such temporary reassignment, he shall be paid a rate not less than his daily piecework average hourly earnings earned on his regular job or jobs, for the total hours worked during the week on such temporary assignment.
- (85) When an employee who is working on incentive is temporarily transferred from one occupation to another for the convenience of the company, he shall receive the greater of 10% over his regular base rate, the base rate of the occupation to which he is transferred, or, his incentive earnings in such occupation calculated on the base rate of that occupation (or his regular base rate, if higher).
- (86) The company and the union recognize that incentive premium is not a guarantee but an opportunity to earn extra wages for extra effort on jobs covered by standards. It should also be recognized that during the normal course of business it will become necessary at times to remove an operator from an incentive job, for a short duration, to a day work job, for the company's convenience or to remove an operator from an incentive job to a job in another seniority department on a temporary basis for the convenience of the company. In either such case, if the interruption causes the withholding of an incentive opportunity exceeding one continuous hour or four cumulative hours, the operator will be paid at \$.50 per hour over said employee's personal rate or a rate comparable to said employee's average straight time hourly earnings (including straight time incentive earnings) over a maximum of the prior 10 weeks but such average would not include any such weeks in which a holiday was observed or the employee was on vacation or absent, whichever is greater while performing the job.

The rate a transferred worker is paid often depends upon whether work is available in the classification from which the employee is transferred. References to seniority as a determinant of a temporary rate are present in a few agreements:

- (87) Any bonus-rate employee who is temporarily transferred from his bid job to any bonus-rate job for a period in excess of one hour, who has an open production order or run and work available on the job for the employee and a place to put the finished work will be compensated in the following manner:

Transferred to another occupation within department: Pay average straight time hourly earnings or his actual bonus rate earnings, whichever is higher, when his earnings are 117% or greater. Pay 117% actual bonus rate earnings are less than 117%. Pay average straight time hourly earnings when a bonus rate has not been established for the operation.

Transferred to another department within same occupation: Pay average straight time hourly earnings or his actual bonus rate earnings whichever is higher.

Transferred to any bonus rate occupation and another employee works on employee's bid job or there is need for the man in his bid occupation: Pay his average straight time hourly earnings or his actual bonus rate earnings, whichever is higher.

Transferred from bid job to another job in occupation within department: Pay average straight time hourly earnings or his actual bonus rate earnings, whichever is higher, when his earnings are 117% or greater. Pay 117% when actual bonus rate earnings are less than 117%. Pay 117% when a bonus rate has not been established for the operation.

- (88) A daywork employee temporarily transferred to an incentive job due to a lack of work shall receive his regular hourly rate or shall receive incentive earnings computed in accordance with the evaluated rate for the labor grade of the job assigned, whichever is higher.

A daywork employee temporarily transferred to an incentive job for reasons other than a lack of work shall receive his regular hourly rate or shall receive incentive earnings computed in accordance with the evaluated rate for the labor grade of the job assigned or in accordance with the evaluated rate for his own daywork classification, whichever is the highest.

An incentive employee temporarily transferred to an incentive job in another classification shall receive incentive earnings computed in accordance with his own evaluated rate or the evaluated rate for the labor grade of the job assigned, whichever is higher. If the employee could have continued to work on incentive in his own job classification he shall be paid in accordance with the above, but he shall be guaranteed his ASTHE. It is agreed that such employee is expected to perform at an incentive pace.

- (89) Should it become necessary to temporarily transfer a pieceworker from his/her accustomed work to work of a distinctly different nature, due to lack of work for the employee on his/her regular operations, it is agreed to maintain these temporary hours separately in order that either the actual earnings or the applicable minimum hourly rate will be paid in accordance with following guarantees:
- (a) Employees with less than 3 years of service shall receive the applicable minimum gross hourly rate (including 11%) . . .
 - (b) Employees with 3 years but less than 10 years of service shall receive the base rate of the operation plus 20% or the applicable minimum gross hourly rate (including 11%) whichever is higher . . .
 - (c) Employees with 10 years or more of service shall receive the Moving Average for a period of 3 weeks or the applicable minimum gross hourly rate (including 11%) whichever is higher . . .

Permanent transfer rates are related to the direction of the transfer—upward, downward, or lateral. To encourage a worker to accept a permanent transfer,

management may offer an earnings opportunity equal to or greater than that on the regular job:

- (90) Upward Transfer . . . A bonus plan operator permanently transferred to another standard job shall be identified with the standard wage rate of the new job grade for the calculation of standard earnings.

The guaranteed hourly rate on this transfer shall be the standard wage rate or his previous rate (whichever is lower).

On permanent transfers to an unfamiliar standard job, the operator shall receive his average hourly rate for the first payroll week on the job after which he shall be compensated on a Learner's Curve with % Allowance. The Learner's Curve with % Allowance is a declining scale of allowances to be added to the operator's standard hours produced over the training period on the job.

An operator permanently transferred to a non-standard job shall be assigned his average hourly rate. It is understood that this rate shall fall within the wage scale of the new non-plan job.

Lateral Transfer . . . A bonus plan operator permanently transferred from a bonus job to a non-plan job shall receive his average hourly wage rate minus 10¢ but not less than his guaranteed hourly wage rate, and not more than the maximum rate of the new job. . . .

Down Transfer . . . A bonus plan operator permanently transferred to a lower grade bonus job shall receive his former guaranteed rate, but not to exceed the standard wage rate of the new job.

A bonus plan operator permanently transferred from a bonus job to a non-plan job shall receive his average hourly wage rate minus 10¢, but not less than his guaranteed hourly wage rate, and not more than the maximum rate of the new job.

A non-plan employee permanently transferred to a plan job shall receive the standard wage rate of the new job or his previous wage rate—whichever is lower—as his guaranteed wage rate.

New employee rate. Far fewer agreements (80) specifically mention the rates for new incentive workers than those that refer to transferred employees (179). This may be because new employees often are paid automatically the base or guaranteed rate for the job until they acquire efficiency. (See table 14.) Of these agreements, most are negotiated in the electrical machinery, apparel, and machinery industries.

New incentive employees often are placed in a wage progression. The new worker starts at the bottom of the guaranteed scale and advances to higher steps after specified periods of time. The average worker will usually exceed the guarantee before reaching the top of the progression:

- (91) The progression schedule for newly hired inexperienced employees shall be as follows:

Pieceworkers	12-1-76	4-1-77	12-5-77	12-4-78
During Trial				
Period	\$2.30	\$2.30	\$2.30	\$2.30
Next 2 months of employment . . .	2.50	2.50	2.60	2.65
Next 2 months of employment . . .	2.60	2.65	2.80	2.95
Next 2 months of employment . . .	2.70	2.80	3.00	3.15
Next 2 months of employment . . .	2.80	2.95	3.20	3.35
Thereafter	3.00	3.16	3.45	3.65

balance-paid, such employee will be paid wage incentive earnings on an individual basis based on the employee's output as determined by the company, except that such wage incentive earnings shall not exceed the wage incentive balance-paid of the wage incentive group to which the employee is assigned.

Provisions for pay at a flat or minimum hiring rate are found less frequently, appearing in 19 percent of agreements having new employee rates. The rate is generally for all new employees, including nonincentive workers, regardless of their job classifications:

- (95) The minimum hiring rate for all employees, except apprentices, will be \$3.86 per hour.

Safeguards against loss of earnings

Other circumstances that entail a guaranteed rate are described in one-half of the 442 incentive agreements. (See table 15.) As with allowances given when employees are temporarily transferred, the special rate is designed to support earnings and cushion the impact of conditions beyond a worker's control.

Downtime. Machinery may break down from time to time despite the best efforts of a company's service and repair shop, and 6 out of 10 clauses that provide an earning's safeguard have special downtime allowances. Some clauses automatically give workers their average hourly earnings rate without mentioning any supervisor role. Others allow varying degrees of discretion to the firstline supervisor:

- (96) A piecework employee whose usual opportunity to work at piecework during a shift is interrupted by any one of the following circumstances shall be paid for such time as he is thus interrupted during that shift at the rate of his piecework classification plus 20 percent, plus the hourly "track-on pay" being added to the earnings of all pieceworkers, where the circumstances are not caused by power failure, act of God, or by his own fault: Waiting for materials or tools, job or fixtures. Machine down time. Breakdown of tools, jigs, fixtures or equipment.

- (63) Employees working on an incentive basis (piece work) who believe that their earnings will be retarded due to interruptions caused by excessive or recurrent tool, machine, fixture or parts trouble or because of short runs, shall notify the supervisor immediately. A supervisor will make one of the following decisions: 1) determine whether the operation is to be performed on a day work or incentive basis; 2) when the supervisor decides that the operation is to be performed on a day work basis, all pieces produced shall be turned in on the non-incentive day work rate; 3) if the supervisor decides that the operation is to be performed on an incentive basis, the supervisor will instruct the employee performing the operation to accumulate a record of actual down times when the trouble occurs so that the employee may be compensated for the down time hours at the non-incentive day work rate of the class of work performed, or 4) the supervisor and/or the Time

(92) **Wage Progression—Labor Grade 4 Bonus Base Rate—Per Hour**

	Effective 4-27-76	Effective 4-27-77	Effective 4-27-78
Starting Rate	\$2.11	\$2.36	\$2.61
After 1 month	2.15	2.40	2.65
After 3 months	2.18	2.43	2.68
After 9 months	2.21	2.46	2.71
After 1 year	2.26	2.51	2.76

Some incentive agreements relate a new worker's rate to the minimum or base rate of the incentive classification to which he or she is assigned. Often, the rate is somewhat below the job rate:

- (93) It is further understood that if any new, rehired, permanently transferred, or recalled employee is assigned to a job that is on incentive, he will be paid the base rate of the job plus bonus and all wage adjustment when the quality and quantity of the employee's work entitles him to a bonus.
- (94) . . . The company may establish the hiring rate and minimum guarantee at less than such base rates for all new employees on incentive jobs who have not acquired seniority, provided such hiring rate and minimum guarantee shall not be lower than 20 percent under the applicable incentive base rate.

The earnings of new employees are directly related to their output in almost one-fourth of the agreements having new employee incentive rates. A group plan is present in most contracts that do not guarantee some minimum rate. This is particularly true in the electrical machinery industry. By computing the new worker's earnings separately from the group's, members are not penalized by the generally lower output of the inexperienced employee:

- (58) An employee new to wage incentive operations who is assigned to an existing wage incentive group shall not participate in the wage incentive balance-paid until the fiscal month following the month in which the employee's individual wage incentive earnings (percentage) equal the wage incentive balance-earned of the wage incentive group or until the employee's wage incentive efficiency equals 83%, whichever occurs first. Prior to the participation in the wage incentive

Study Department may establish an adjusted incentive rate for the operation during the period any trouble occurs.

- (97) If an incentive worker experiences mechanical or material difficulty on an assigned operation on which there is an incentive standard, he shall call the attention of the supervisor to the condition. If the supervisor recognizes the difficulty and directs the incentive worker to continue on the assigned operation, the employee will be paid not less than the occupational rate starting at the time the supervisor is notified and until the condition is corrected, unless an incentive standard is established for this temporary condition.

The occupational rate shall also be the rate for all downtime due to lack of material and equipment, power failure, machine breakdown, etc., where the employee is required to remain in the plant and the condition is not otherwise covered by this article.

Faulty material. Similar to allowances for mechanical breakdowns, and often in the same agreement, special allowances are paid when workers handle faulty material. This includes materials that do not meet a company's normal specifications and are hard to work on. The prevalence of this provision, however, is far less than for downtime:

- (98) When an employee is working on a piece work operation and for some reason a condition arises (e.g. waiting for material, machine breakdown, etc.) that prevents him from working at an incentive pace, he will be paid the occupational wage of the job. When a condition arises (e.g. faulty stock condition, etc.) that prevents him from producing at an incentive level, he will be paid actual incentive earnings or 10% above the occupational wage of the job, whichever is greater for that time.
- (99) Piece work prices may be temporarily adjusted to take care of unusual conditions such as faulty material and equipment.

Special assignments. Earnings are protected for workers on special assignments in 55 percent of the provisions having earnings safeguards. Such clauses are particularly common in the machinery and electrical machinery industries.

Clauses requiring temporary rates for experimental or instructional work are most common. Less prevalent are provisions giving rate protection to employees reworking the faulty output of other operators or performing inventory work. The method for calculating an appropriate earnings safeguard usually is included:

- (100) Incentive workers selected for inventory work will be paid 125% of their labor grade rate.
- (16) When an employee is taken off an incentive job and is required to perform work of an experimental nature, he will be paid the base rate of the new job plus a percentage equivalent to his total incentive earnings for the previous 4 weekly pay periods. . . .

- (101) When an employee who is assigned to a non-line operation and who is working on a position covered by the Wage Incentive Payment Plan, is taken from his regular operation to teach other employees a new operation, he will punch out from his job for the period of time involved. If such instruction continues for more than 4 consecutive hours, the teacher may apply to his foreman for instruction pay at his step rate for two grade levels higher than his current labor grade for the instruction period in excess of such 4 consecutive hours.

- (162) If an employee's incentive earnings opportunity is adversely affected, as a result of the company preempting his services and assigning him to:

- (a) Trial run,
- (b) Pilot run,
- (c) Development work,
- (d) Under special conditions that are mutually agreed upon in advance, or
- (e) Train another employee.

The foreman will cause such employee to be paid at his holiday rate of pay.

Nonwork assignments. It is not unusual for an employer to request that employees do something unrelated to their job duties. The activities may include undergoing a physical examination, taking a training course, attending meetings, and visiting the personnel or first aid departments: 1 out of 5 agreements having an earnings protection clause assign a special rate to these nonwork assignments:

- (103) It is agreed that employees shall be paid average hourly earnings . . . for time spent taking physical examinations requested by the company, excluding pre-employment and return-to-work physicals.
- (104) The minimum guaranteed hourly rate of the labor grade shall be paid for time spent by employees at meetings requested by management before or after working hours.
- (105) A piecework employee will be paid at his average piecework earning rate for time lost from work when he is required by the management to leave his work and report to the plant medical department for a physical examination where such physical examination is required by the company (1) because the employee has been placed by the plant medical department in a physical classification requiring such examination, or (2) because of working conditions for which the plant medical department requires physical examinations to prevent a hazard to the employee's health. . . .

When a piecework employee is required to report to the employment department . . . he will be paid at the occupational earning rate of the classification from which he is being transferred, for the time consumed during the regular working hours in effecting the transfer.

- (106) Payment at straight time (current month) will be made for time spent at management's request for purposes such as, but not limited to visits to the first aid room or personnel department, or for in-hour training conducted by the training department.

Provisions sometimes establish an earnings allowance for employee time spent on labor relations activities:

- (107) An employee who is designated local union representative shall be compensated at his hourly rate or, in the case of an incentive employee, his average hourly earnings plus all premium pay for time lost from his regular shift because of attending scheduled meetings for the discussion of employee problems and/or the negotiation of grievances (including arbitration hearings or meetings).

An employee who is designated local union time study engineer will be compensated at his hourly rate, or in the case of an incentive employee, his average hourly earnings plus all premium pay for time lost because of making time studies, the working up of his time studies and comparing the results of such studies with management.

Local union representatives who lose time from work attending meetings called by management shall be compensated for time lost in the same manner as provided above. . . .

Break-in time. When an employee is hired or transferred into an incentive group, the earnings of experienced group members may be reduced due to the slower pace of the inexperienced operator. In one-fourth of the contracts having earnings safeguards, however, the regular crew members have their rates of pay protected during this break-in period.

Agreements frequently restrict eligibility for a protected rate during break-in time. Some clauses require the allowance only if production of the transferred or new employee falls below a specified level. Under other provisions, the loss of production, and hence earnings, must be directly attributable to an inexperienced incentive worker:

- (33) Where a substitute for an absent operator has a production average of 62-1/2 or more cigars per hour less than that of a regularly assigned operator with whom he or she is temporarily teamed, the regularly assigned operator shall be guaranteed his or her normal average earnings, as established by his or her 5 preceding days' production.
- (108) When an experienced employee is placed (temporarily transferred at management's request) on a job other than his regular job . . . and is a member of a crew which has work remaining on its job, and is replaced by an inexperienced employee, and the earnings of the remaining members of the crew are adversely affected as a direct result of the removal of a regular member from the crew . . . the remaining members of the crew will be paid their average hourly

earnings from their regular jobs or their piecework earnings, whichever is greater.

- (76) Greenhorn Operator Adjustment—The adjustment will be based on the normal production of the unit, which adjustment is actually an allowance for lost time . . . just as for machine trouble, waiting for material, etc. Accordingly, the unit is not to be "made whole" for loss of earnings—only that unit members (excluding the greenhorn operator) receive their base rate for the amount of lost time directly attributable to the greenhorn operator, defined as a temporary or probationary employee.

Accordingly, before an adjustment (lost time allowance) is justified under the above, it is required that (1) the unit be of a constant composition as to members, and (2) has previously worked on an order identical to the order on the day of the greenhorn operator issue. The reason for these two requirements is that the loss or production and earnings can be identified as directly attributable to the greenhorn operator and can be measured.

Red-circle rates. One-fourth of the agreements having wage protections discuss red-circle rates. More than one-third of these clauses are in the primary metals industry.

Red-circle rates, higher than normal rates for the job, are paid to a particular employee for such personal characteristics as length of service, age, or physical handicaps. They are also awarded for such work related circumstances as the reorganization of job classifications. These special differentials may be reduced over time, or eliminated entirely, should a worker transfer to another job classification:³

- (109) . . . employees who are assigned to mold pouring assignments will be paid their "red-circle" rates for hours worked as mold pourers. In addition these employees will be credited with premium incentive hours earned as mold pourers beyond actual hours worked, and premium earnings for such premium hours will be computed using the proper occupational rate as provided by the collective bargaining agreement and the appropriate incentive standard(s) for the operation(s). The application of these payments will be for time spent at mold pouring by the day, not by the operation. For example, an employee who works as a mold pourer for six and one-half hours during the day and earns two premium hours above the six and one-half worked, would be allowed pay at the appropriate occupational rate(s) for these two premium hours. In addition, the actual hours worked (six and one-half) would be multiplied times the employee's appropriate "red-circle" rate, and this amount, along with the two hours of mold pourer premium earnings, would constitute this employee's wages on mold pouring for the time spent working. The one and one-half hours of downtime as a mold pourer will be paid at the specified "red-circle" rate.

³See *Major Agreements in Collective Bargaining: Wage Administration Provisions*, Bulletin 1425-17 (Bureau of Labor Statistics, 1978), pp. 26-31.

(110) When changes, such as method changes, process changes, new equipment purchases, audit of job evaluation program, etc., occur . . . resulting in changes of job classification or the establishment of a new classification that decreases the job evaluation point values 1 full labor grade or more for an employee assigned, or which establishes a new job classification which replaces that classification and under circumstances when an incumbent employee accepts, within or outside his department, a new reduced labor grade rate on his own classification, or on a successor classification because the job evaluation point value has been reduced more than 1 full labor grade below the point value of his original classification, then a "modified Red Circle" or "Modified ID" will be established for such employee . . . The amount of such "Modified Incentive Differential" will be equal to the amount of the difference between 125% of the labor grade base rate of the employee's current job classification and 125% of the labor grade base rate of new or revised job classification. . . .

"Modified Incentive Differentials" will be effective under the following conditions:

- (a) Reassignment of duties by reorganization of job classifications.

- (1) Elimination of an existing job classification by separation of duties into 2 (or more) new job classifications.
 - (2) Separation of duties of an existing job classification into 1 (or more) new job classifications with re-evaluation of the original job classification.
 - (3) Elimination of 2 (or more) existing job classifications by combining duties into 1 (or more) new job classifications.
- (b) Operation changes resulting in new job classification or re-evaluation of existing job classifications.
- (1) Acquisition of new machines and/or equipment, or modification of existing machines and/or equipment, which replaces similar existing machines and/or equipment.
 - (2) Accumulated job evaluation changes, amounting to 1 full labor grade (or more), as a result of reported job changes, or as a result of audit.

Chapter 4. Production Standards

A useful definition of a production standard is the level of production which may be reasonably expected from an average worker, or a group of workers, when working to normal capacity on specified jobs, or job classifications, with due consideration for quality of workmanship, an efficient method of operation, and the continued health and safety of the worker.

The principal collective bargaining benefit of production standards for both management and the union is precise work expectations (or requirements) for use in incentive compensation calculations and employee evaluations. Incentive pay, which compensates workers for productivity above a specified level, could not be administered without production standards to determine the output of an average worker performing at a normal pace. Similarly, conflicts over the accuracy of an employee evaluation could be mired in subjective opinion without production standards for use as the benchmark of the satisfactory worker. For production standards to be used effectively for these purposes, it is assumed that both parties accept the standard as a just assessment of a fair day's work. On the whole, this is a reasonable assumption, as virtually all agreements containing production-standard provisions allow union input to the establishment of the standard or a procedure through which an appeal may be made.

In general, a job or job classification must fulfill four basic requirements to be considered suitable for production standards. First, the work performed must be repetitive and capable of being done uniformly by all workers involved in the task. Second, the job content must remain constant from one measuring period to the next. Third, the method of operation and the good produced must be capable of being objectively and accurately measured. And last, the volume of work, both in terms of the number of workers and the quantity of the good produced, must be sufficiently high to justify the expense of establishing and maintaining the standard:

- (7) The company intends to develop and apply standards to all work, both direct and indirect, for the purposes of providing employees with the opportunity to earn incentive pay, increasing productivity and reducing unit costs when such work can be measured, when the output of such work can be recorded in easily

determinable units and when the application of standards to such work is justified.

Of the 1,438 agreements surveyed in this study, 333 or 23 percent, contain production-standard provisions. (See table 16.) These agreements represent 1.9 million of the 7 million workers included in the study. Virtually all (96 percent of the contracts with production standards) are in the manufacturing industries.

Within the manufacturing industries, four predominate in the area of production standards:

<i>Industry</i>	<i>Agreements with production standards</i>	<i>Workers (thousands)</i>
All industries	333	1,857.3
Primary metals	46	344.4
Machinery	55	129.9
Electrical machinery	47	201.1
Transportation equipment	33	783.8
Total	181	1,459.2

These industries account for 54 percent of the agreements containing standards and 78 percent of the workers covered by agreements with standards. In contrast, they account for only 21 percent of the agreements and 31 percent of the workers included in this study.

The United Steelworkers of America (USA) and the United Automobile, Aerospace, and Agricultural Implement Workers of America (UAW) negotiated 147 (10 percent) of the 1,438 surveyed agreements (88 and 59 respectively). However, 80 percent (71) of the USA agreements and 88 percent (52) of the UAW agreements occur in these four industries. The two unions collectively represent 65 percent or 1 million of the 1.9 million workers covered by agreements with production standards.

Company policy and union-management cooperation

A statement of company policy concerning production standards occurs in 100 of the contracts studied. (See table 16.) This type of clause usually commits the company to fair and equitable production standards with due consideration to the reasonable productive

capabilities of the employees and the equipment they use:

(111) The company reserves the right to determine and establish standards of performance for all machines and operations. Such standards shall be established on a basis of fairness and equity consistent with quality of workmanship, reasonable productivity of experienced and capable employees and the reasonable productive capacities of equipment.

(112) It shall be the policy of the company to establish fair and equitable time standards. . . .

A union-management cooperation clause was found in 11 of the 333 agreements having a production-standard provision. These provisions formalize the parties' joint efforts in pursuing their common interests in equitable production standards. Cooperation clauses usually pledge the parties to work together for mutual benefit on production-standard issues. Ordinarily, the parties agree to strive to attain or increase production expectations consistent with fair and equitable standards:

(113) The union and the employer, out of a mutual sense of their responsibility for high quality service to the customer, and for the economic well-being of the industry, and its employees, agree to adopt a joint program for improving the productivity and efficiency of servicing operations, improving employee income, and improving job stability and employer profitability. The union is deeply conscious of the need to foster high level productivity in the services shops. The industry is deeply conscious of the need to foster improved employee income, commensurate with improved levels of productivity. It is the intent of the parties hereto that adequate qualitative and quantitative production standards shall be met, except where it is beyond the control of the employee, due to limited facilities, lack of work or discrimination in the allocation of work.

(114) The union agrees to cooperate with the company to the fullest extent in the improvement of production rates based on production standards established by the company by such means as time studies, motion studies, or other methods of determining operator output on the basis of fairness and equity consistent with quality and reasonable working capacity of normal experienced operators.

Often a union-management cooperation or company policy provision will specify factors which may limit productivity in the interest of other considerations. The most common of these are worker safety and health, and product quality:

(115) The right of the company to establish and enforce production standards is recognized. Such production standards shall be fair and equitable and the time allowed for performing an operation shall be the time necessary for a normal experienced operator, familiar with the operation, tools, equipment, and material

provided, and the quality of the finished part shall be up to the standard required with the operator working at a pace he can maintain day after day without mental sickness or physical injury to himself or his fellow employees. . . .

(116) The company and the union recognize that job security and job opportunity depend upon constantly improving product quality and constantly lowering product cost through time saving methods and equipment. To this end the parties agree that production standards will be established fairly and equitably, and in accordance with the principle of a full day's work for a full day's pay without injury to the health or safety of employees.

(55) Consistent with the principle of a fair day's work for a fair day's pay and consistent with the employee's welfare in regard to safety, health, and the effects of sustained effort, the company may establish and maintain, and the union agrees to cooperate in establishing and maintaining, full workloads on piece work and day work jobs as defined. . . .

Installation and modification of production standards

Establishing or modifying production standards is generally a management function, with the union retaining the right to make its views known, either formally or informally, on the issues. If necessary, the union usually may process a complaint through the appropriate dispute settlement procedure.

The authority to install production standards is reserved to management in 57 contracts, thereby allowing management to institute work standards on new or previously unmeasured jobs at its discretion. (See table 17.):

(117) The determination of work standards is a function of management.

(118) The company will have the right to determine and establish standards of performance for all machines and operations for purposes of wage incentive payment, covering all of the major functions involved in the manufacture of corrugated containers and parts in these plants.

Additional agreements, while not specifically reserving the right to install standards to management, state the circumstances under which standards would be installed. These provide for the installation of standards when new job classifications are created or as a result of a change in technology. Both reasons are cited in some agreements:

(119) Where new equipment is installed, or new operations commenced, which are supplementary to the facilities or equipment covered by incentives at a given plant, new incentives shall be developed at the earliest practicable date. The new standards shall be designed to provide appropriate equitable incentive earning opportunities as set forth [in this agreement] and shall become effective when installed, but in no event more than 12 months after the new operation is commenced.

- (103) When it is necessary to establish piecework rates or standards on new operations, such piecework rates and standards will be established so that experienced employees working with the same speed, skill and effort will be able to earn what other experienced employees earn on the same or similar operations.

The right to select the test or tests used to secure the data on which standards are established or modified is reserved to management in eight agreements:

- (10) It is understood that all standard data will be determined from studies and other data made or available at the Louisville Plant, except that any speed, feed, cutting feet per minute, etc., data which would happen to be supplied by the manufacturer of a piece of equipment, will be used; provided, however, that this does not abridge management's right to use M.T.M. or other accepted work measurement techniques, which are based on predetermined time values and which may be applicable to Louisville Plant operations.

When the parties have agreed to the installed or modified production standard as a correct measurement of a "fair" day's work, most agreements reflect the need to protect the standards from unwarranted change as well as to provide the necessary flexibility to insure the accuracy of the standards as the characteristics of the job change. This responsibility and authority to modify standards under specified circumstances is vested with management in 144 contracts. The circumstances under which standards may be modified are identified in 180 agreements, of which 36 make no specific reference to management's authority to alter the standard. It is reasonable to assume that management retains the right to act under the appropriate circumstances. The justification is usually a broad statement encompassing any change in the process affecting a worker's productivity:

- (120) Present output and accuracy standards shall not be changed unless there is a change from the existing standards in the (A) methods, (B) procedures, (C) equipment, or (D) work content of the job.
- (121) When a work standard is established or when a standard is disputed and settled it shall remain unchanged and not subject to dispute again unless and until the operation is changed in method, layout, tools, equipment, process, materials or product design.

The unilateral right to modify production standards without reference to a change in the methods of production is reserved to management in only five agreements:

- (122) The establishment and enforcement of production standards and/or work requirements is the responsibility of the company. The supervisor will advise the employee and the steward involved when a standard is initially established or when it is being changed.
- (123) . . . the company shall have the right to re-time production standards or work quotas and to establish new

standards or quotas at any time in order to maintain a competitive position, but the company agrees to inform the union when such action is necessary.

The continuing process of updating and streamlining the work operation to maximize production efficiency and product quality may include one or a number of minor changes, leaving the majority of the job and the standard unchanged. To prevent the constant modification of standards to reflect relatively insignificant changes in job content, many agreements allow for a change in standards only if the alteration caused a change in the time to perform the work operation greater than a specified percent. The change in the standard often is limited to the portion of the standard applying to the modified part of the job:

- (124) A piecework standard once established shall not be changed, except in the case where the company makes a change in the materials, tools, machine, method, or design of an operation. Such change shall be more than plus or minus 5% of the total time and only that change in method shall be subject to study and change.

Similarly, many agreements allow small changes in the process to be made with no immediate change in the standard. These contracts provide for the modification of the standard when the accumulated changes create a total adjustment in working time exceeding a specified percent:

- (86) A change causing less than a 5% change in the total standard will not be added to or subtracted from the original standard. It will be noted and held and as future changes are made they will be accumulated and when the total accumulation exceeds 5% such total changes will be made to the standard.

Not uncommon are provisions allowing the correction of standards based on clerical or computational errors:

- (125) A production standard once established shall not be changed except in the case where the company makes a substantial change in the materials, tools, machines, method or design of an operation, unless it found through investigation of a grievance presented by the company or the union that there is a clerical error or errors in computation.
- (109) Where an incentive standard is found to be in error due to arithmetical errors in calculation of the incentive standard or clerical errors in the transferring and posting of the incentive standard, such errors shall be corrected.

A change in production standards may affect an incentive worker's ability to maintain his or her earnings level. This could occur should the quality aspect of the standards be raised to a level requiring the worker to operate more carefully, and at a slower pace, thereby reducing incentive wages. To protect the worker from

unwarranted decreases in earnings potential, six agreements require a revised standard to provide essentially the same earnings potential as the previous standard:

(126) When a work standard is changed . . . , it is understood that except in cases of errors in the previous work standard, the new work standard will permit the approximate same opportunity for earning premium as existed prior to the change in the method, quality specifications, or condition of the regular work standards provided the same effort must be exerted.

A few agreements prohibit modification of standards to offset increased productivity and employee earnings resulting from superior employee effort and efficiency:

(87) Subject to the provisions of the preceding paragraph, the company agrees that standards will not be changed by reason of increased earnings produced by the operator's own effort.

(127) Increases in pieces produced as a result of extra operator effort, operator skill and ingenuity, or because an operator does not take all the allowance time specified, are not to be considered as part of a method change causing a revision to the productive standard or piece price per hundred.

To facilitate the cooperative establishment, modification, and administration of production standards and to minimize disputes requiring resolution through an appeal process, 45 agreements contain a clause stipulating the union's right to question the accuracy of the standards, often entailing a revaluation of the standard. (See table 18.) This action provides a means to resolve standards disputes without resorting to the grievance procedure:

(16) Current moves on work standards shall remain in effect during the term of this agreement unless a request in writing is made by either the company or the Shop Committee to have the Industrial Engineering Department restudy any job and determine whether or not the existing is equitable.

(128) . . . the union may, at any time during this agreement, request, in writing, a revision of any incentive standard which the union believes does not have earnings opportunity as established in [this agreement].

Similarly, employees are specifically allowed to question production standards in 54 contracts:

(129) When a new incentive rate is established by the company, the employee may, at any time after the rate has been set, call to the attention of this foreman any inconsistencies which may exist.

Less common, but equally important in maintaining open communication and a mutual understanding of the issues, are clauses establishing a process in which the union and the employer would discuss production-standards issues:

(130) The union will have the right to review and discuss any changes in standards. . . .

Production-standard information

To help the parties effectively work together on the installation and modification of fair and equitable production standards, many agreements provide for various types of production-standard information to be transmitted between the employer, the union, and the employees. The type and timing of information is usually a function of the role the recipient is to play in the production-standard process.

As discussed previously, management usually is the initiating party in the establishment or modification of production standards. Even when the union or the employee is the motivating party, the company is usually responsible for the study or restudy of the standard. As a result, the flow of information generally is from the company to the union and the employee.

Of the 333 agreements having production standards, 142 stipulate certain information be provided to the union. This number is, in all probability, understated, as it is reasonable to assume that the company will voluntarily provide the actual standards to the union. This basic information is generally transmitted on a routine basis, and there is no need for its formalization into collective bargaining terms. Occasionally, however, production standards are given to the union only upon request:

(131) The company will supply the union with job standards when requested.

Most frequently, the contract requires the company to notify the union of newly installed or changed production standards or when existing standards are extended to new jobs or job classifications. Many agreements stipulate that the reason for such action also must be disclosed:

(132) The company will furnish the union a copy of the job description and standard value of all operations now on standards and any operation which is being changed or to which production standards are being applied for the first time at least six days before such standards are to become effective.

(126) When changes in work standards are made or when work standards are applied to a new operation, the foreman shall inform the union official of the new work standards.

(97) The steward of the appropriate unit will be notified in writing by the supervisor of the respective department of new incentive standards or changed incentive standards and the reasons for the new or changed incentive standards as soon as they are determined.

At times, an agreement, while requiring the company to notify the union of changes in production standards, may exclude those considered to be routine or minor:

- (81) The employer shall notify and discuss time standard changes with the union before installation, except for minor routine changes.

While most information to the union on modified production standards was found to be required before, or shortly after, the effective date, a few of the agreements call for periodic reports:

- (133) The company shall furnish the union once each month with a list of jobs covered by this agreement in which output and accuracy standards have been changed, stating the reasons for the change.

Also common, yet found less frequently than information to the union on new or modified standards, are provisions stipulating that the union receive relevant data regarding disputed production standards.

- (134) In cases of disagreement relative to the standard as set for a job, the company will make available the applicable data and records during the discussion of such questions.

- (135) The company will furnish the union with a copy of any disputed production standard.

While most information-to-the-union provisions simply state that the union is to receive the data, a few specify the union official, or officials, by office, who is to be informed:

- (86) It is agreed that any standards which have not been used for a period of five or more years will become null and void and the Union Incentive Steward will be notified of any such cancellation.

- (136) The company will explain new production standards or tonnage rates to the Union Grievance Committee.

Provisions obligating the company to provide production-standard information to the employee occur in 97 of the 333 agreements containing standards. Again, it is reasonable to assume that, while only 97 contracts specify a production-standards information flow to the employee, all employees operating on production standards are informed of the requirements of the job or the basis of the incentive wage system. Virtually all of the agreements stipulating information to the employee require only the standard to be transmitted. Most provisions direct the information to all production-standard workers:

- (130) Employees on performance rated jobs will be furnished a card showing the standard for the respective operations they perform and the amount of work required per hour for each degree of efficiency.

- (104) All operators or group of operators including new employees and transferees will be notified of their time standard in decimal hours per piece, unit of

count, measure of weight, as well as pieces or units per hour and will be instructed on the job method and sequence before their time standard becomes effective.

Typically, each production-standard worker receives the standard relevant to his or her work operation. However, a few agreements allow the information to be posted, most likely in a place commonly used for company-employee communications or the actual worksites. This is likely to occur where a large number of workers perform the same or similar work operations:

- (94) Whenever practicable, new and revised standards will be posted forty hours before they become effective.

As production-standard data may also be of use to a company's competitors, a few contracts obligate the receiving parties to maintain appropriate confidentiality:

- (137) The company will provide a copy of the operational elemental description and standard for each standard installed at the site of the job classification involved and will furnish a copy of the same to the President of the union. This written record shall be considered confidential and shall not be duplicated or copied and shall not be removed from the plant or the union hall.

Trial periods and temporary standards

Many agreements provide for the use of temporary standards during trial periods where permanent standards have not been established or are in question. Some contracts provide temporary standards to use when the company and the union can not agree on the accuracy of standards prior to their actual implementation or when the standard in effect is appealed. Others provide for a trial period under temporary standards as a planned stage in the standard-setting process. Through the use of a fully operational test period, conditions which may not be apparent in smaller, more structured tests may be observed and accounted for in the final standard.

The duration of the trial period must allow for worker acquisition of required skills, the observation of all steps in the operation, and the experimental use of alternate methods. Clauses stipulating a trial period of fixed duration, or a minimum or a maximum time limit, were found in 35 agreements. (See table 19.):

- (78) The first twenty working days of actual operation under a new piecework rate or incentive work standard and ten working days of actual operation under a changed piecework rate or incentive work standard shall be a trial period during which the employer may make whatever adjustments it feels are necessary in such rate or standard.

(108) The department chairman and the foreman of the department involved shall agree to the length of a trial period of not less than three working days during which the employees involved shall give the proposed piecework prices or standards a fair trial. . . .

(138) Upon the installation of a standard under the Standard Hour Plan, the employees shall make an honest effort to develop incentive earnings during a fair trial period of 28 calendar days. It is recognized that a standard may only be in use for a fraction of this 28 calendar day period; however, once the 28 calendar day period is exhausted, the standard is no longer subject to the trial period.

An open-ended time limit for the duration of temporary standards was found in 15 agreements. Generally, these provisions allow the temporary standard until the new standard can be set:

(54) Temporary standards may be used for new operations or changes in existing operations until new permanent standards can be established. . . .

(139) After such standards or rates are installed and if the union challenges such standards or rates within 30 days thereafter, these standards and rates shall be considered temporary during the period that the standards or rates are in dispute.

To ensure adequate time to determine accurate standards, a few agreements provide for an extension of the trial period with the mutual consent of the parties:

(102) The incentive standard originally established for any operation may be either temporary or permanent. However, where temporary standards are established and no action is taken in regards to said standards within sixty days after the first day of production they shall become permanent standards, unless by mutual agreement the date is extended.

While working under temporary standards during a trial period, an employee may perform a new or modified operation and, perhaps, utilize unfamiliar tools, materials, and methods of production. To protect the worker from an unwarranted decrease in income during the trial period, 40 agreements provide special compensation for workers operating under temporary standards. Most often, the worker is paid the average wage earned during a previous period:

(140) During the 4 weeks' trial period all employees remaining on the job being changed will be guaranteed their previous average hourly earnings for the last Social Security quarter or a period to be mutually agreed upon.

(141) During the interim period between the cancellation of the old standards and installation of the new, all employees affected shall receive an interim differential, or interim rate, to protect them from earnings loss, calculated by reference to a representative period

immediately preceding cancellation of the old standards.

Temporary standards may be substantially revised at the end of the trial period or the appeal process, possibly creating wage inequities. Of the agreements surveyed, 81 contracts, covering 215,500 workers, provide retroactive compensation for workers with compensation inequities resulting from inaccurate temporary standards during trial or appeal periods:

(138) Retroactive adjustments due to the correction of such standards during the fair trial period will be made to the date of the installation of the standard.

A few agreements allow the work to be performed on a daywork basis or on temporary standards with retroactive compensation until permanent standards are established, depending upon the circumstances:

(142) During the interim time, the job shall be performed on either non-standard or retroactive status. The employee shall be notified of the status that will be used for the job. Retroactive status shall be used when the condition, raw material, method, equipment, and quality specifications are sufficiently well established to permit standards applications.

Although not common, a few agreements allow the use of temporary standards for special operations or jobs of short duration. The use of temporary standards for these purposes does not entail trial periods or special methods of compensation:

(143) Temporary incentive standards may be established by the company on short run or special operations, but such temporary standards shall be so identified and shall be effective for not longer than thirty calendar days.

(110) When one of the changes in conditions described above occurs, the Industrial Engineering Department will establish a new standard as promptly as practicable. Where the conditions for the new rate being established will be limited in duration, the Industrial Engineering Department may release it with a notation that it is for "this job only" or for a specified period of time. Standards thus established shall be known as "Temporary Standards-Conditions" (TC Standards).

A few agreements found it necessary specifically to require workers operating on a temporary standard to work with a reasonable amount of effort and diligence to ensure a fair evaluation of the standard:

(110) Upon the establishment of a standard under the SHP, the employees shall make an honest effort to develop incentive earnings during a fair trial period of not less than 30 days.

Production-standards appeal procedures

Provisions specifying the mechanism that the parties have agreed to use in resolving production-standards disputes are found in 165 agreements. (See table 20.) Usually, the appeal process is grievance and arbitration or an accelerated grievance and arbitration procedure. Virtually all agreements provide for general dispute resolution through a grievance process and, slightly less frequently, arbitration. In the absence of a prohibition on the use of grievance and arbitration procedures for the adjustment of production-standards complaints, it is implicit that they can be used.

Grievance and arbitration is the most often specified production-standard dispute settlement procedure, occurring in 80 of the contracts. Provisions specifying a grievance procedure without arbitration occur in 29 agreements. Arbitration as the sole production-standard dispute procedure is found in only three contracts:

- (130) Any dispute or disagreement over changes in standards will be resolved in accordance with the grievance procedure including arbitration as provided. . . .

As production standards are used extensively in day-to-day operations for evaluating worker performance and determining incentive earnings, an unresolved dispute may strain union-management relations as well as undermine worker morale and productivity. To facilitate an early accord, 20 agreements provide for accelerated adjustment procedures. Of these provisions, 15 involve both grievance and arbitration while 5 provide for grievance procedures without recourse to arbitration:

- (123) Any [production standard] protest filed by the employee or employees affected under the provisions of this Section 4 shall enter the second step of the grievance procedure established in this agreement and shall be processed through the third step of such procedure. . . .

- (131) A work standard grievance shall be instituted directly in step two (in writing) of the grievance procedure. In the event the dispute is not resolved at the third step, the matter may be appealed within one week by the union to a special expedited arbitration procedure. The company will supply the union with job standards when requested.

As a production standard may be established using one or a number of specialized tests, methods, or studies, the resolution of a standard dispute is occasionally administered through special procedures. Such procedures were found in 33 agreements. They usually call for an expert to assess the accuracy of the existing standard and resolve the issue of compensation for work performed under inaccurate standards:

- (144) It is understood and agreed that in the event of unresolved disputes concerning production standards,

the company and the union will agree upon the selection of a special arbitrator from a source different from that provided for in the arbitration clause of this agreement. It is agreed that in the selection of such special arbitrator the company and the union shall select an individual who is competent in the industrial engineering field and who in making his decision shall consider existing industrial engineering practices.

Limitations on production-standards appeals are common among agreements designating procedures for handling production-standard disputes. Of the agreements surveyed, 72, covering 244,100 workers, contain one or more restraints. (See table 21.)

As mentioned earlier, mutually acceptable production standards form the basis of a worker's incentive earnings or performance evaluation. It is necessary, then, that disputes concerning the accuracy of a standard be registered and resolved as expeditiously as possible. An inaccurate standard allowed to exist over a protracted period of time may cause serious economic inequities as well as provide a basis for unfair work performance evaluations. Also, to administer production standards effectively, it is necessary to establish their acceptance by the parties within a reasonable period of time. Usually, a party failing to appeal within the prescribed time limit is considered to have waived the right of challenge. Clauses requiring production-standards appeals to be registered within a specified period of time were found in 29 of the agreements studied:

- (78) Any grievance against the new or changed rate or standard which is filed within the trial period specified . . . or which is filed more than 10 working days after the expiration of the trial period specified . . . shall not be subject to consideration.

Almost as prevalent are provisions allowing an appeal of new or revised standards only after completion of a trial period of temporary standards. This constraint, found in 24 agreements, allows both parties time to observe and evaluate the proposed standards, possibly eliminating unnecessary disputes:

- (86) Any grievance concerning a new or changed standard may not be filed until such new or changed standard has been in operation for 15 working days.

- (108) The Department Chairman and the Foreman of the Department involved shall agree to the length of a trial period of not less than 3 working days during which the employees involved shall give the proposed piecework prices or standards a fair trial. If, at the end of the trial period, and review by the shifts involved, a dispute exists as to the correctness of the price or standards, a grievance may be processed as provided by the grievance procedure.

Restrictions on the jurisdiction of the arbitrator were found in 17 agreements. Mostly, the arbitrator is prohibited from actually setting the standard where it is

found to be inaccurate. The issue is usually returned to the parties for the purpose of modifying the standard in accord with the arbitrator's decision:

- (145) The arbitrator shall not have authority to modify production standards; but in deciding whether there was just cause in a case arising under this paragraph, he may consider whether the standard involved is proper under the fair day's work or pay principle mentioned above. If the arbitrator sustains the grievance on the ground that the standard involved is not proper, local management will review it with the appropriate local representative.
- (97) The jurisdiction of the arbitrator is specifically limited and restricted to the sole determination of the following questions:
1. Was there a clerical error in the computation of the incentive standard, or
 2. Was there a change in design, equipment, material specifications or manufacturing methods, and/or
 3. If there was a change in design, equipment material specifications or manufacturing methods, what elements were changed?

While not common, 11 agreements prohibit production-standards disputes in general, or certain types of standards disputes, from going to arbitration:

- (32) The umpire shall have no power to establish a new rate or change the existing wage rate structure, establish new jobs or change existing job content, or to rule on: Any matter pertaining to production methods or standards. . . .
- (102) Decision as to when an operation has reached the stage that an incentive standard may be established therefore, is to be made by the company, subject to grievance procedure, but not arbitration.

Provisions allowing only those workers affected by the disputed standard to initiate an appeal are found in six agreements:

- (18) Should any dispute arise after a time standard hereafter is set or changed or corrected by the company on any given job, the union may investigate with the Methods Engineer, and/or Plant Superintendent and/or his designated representative the method under which the standard was established in an effort to arrive at an amicable adjustment. If an amicable adjustment is not arrived at, any aggrieved employee shall be free to file a grievance. . . .

Allowances

A fair day's work as measured by production standards takes into account factors inherent in the worker or the work process which limit the employee's productive time or capacity. Typically, allowances are categorized as personal, delay, and fatigue time. These factors are virtually always considered in calculating the standard. However, one or more of these

allowances are specifically referred to in only 115 of the 333 agreements having production standards. (See table 22.)

Personal time allowances provide nonproductive time during the work period to accommodate the personal hygiene needs of the employee. Delay time exempts the worker from productivity requirements for expected periods of inactivity beyond the employee's control (i.e., waiting for supplies or performing maintenance on equipment). The fatigue allowance reduces the expected level of productivity as the workday advances:

- (107) In the establishment and adjustment of incentive time standards, the Industrial Engineering Department shall give due consideration to fatigue, speed, effort, rest, and personal necessity, among other factors.

As shown above, most agreements explicitly providing for allowances do so with general statements. However, a few contracts specify the percent of worker time to be allocated to the various allowances:

- (143) All incentive standards shall include an allowance totaling 13% of the element time. This 13% allowance shall consist of 5% for personal and fatigue time, including all personal clean-up time, and eight percent (8%) for contingencies and delays.
- (146) Allowances will consist of 15% calculated off the hour in minutes and will include lunch, personal fatigue, clean-up, and normal chip time.

Normal, expected, or minor delays are usually built into the production standard. However, major delays, such as machine failure or lack of material, cannot be anticipated and accommodated in the standard. A few agreements exclude major delays from time worked toward meeting the standard:

- (147) Delays due to mechanical breakdowns and other interruptions of work of longer than 10 consecutive minutes (.17 hour or more) shall not be charged to the incentive job. Minor delays of 10 consecutive minutes or less (.16 hour or less) shall be charged to the incentive job. These minor delays are part of the normal conditions of the job and credit for the average occurrence shall be provided for, through the use of delay allowances included in the standard:

Discipline

Employees working on operations covered by production standards face implicit penalties for failure to perform at or above the expected level of productivity. The earnings of the incentive worker failing to produce the minimum acceptable output generally falls to the preestablished minimum payment. As this compensation is usually less than the incentive wages earned when producing at or above standards, the worker has incurred an economic penalty. In addition, continued

inability to meet standards may place the worker's job in jeopardy. A nonincentive employee performing work measured by production standards is evaluated, in part, by the degree with which he or she meets, falls short of, or exceeds the standard. As with the incentive worker, the worker's wage treatment and job security is related to his or her performance measured against the standard:

(148) Whenever an operator has been charged with . . . inefficiency. . . for failure to make standard, the supervisor will so advise the operator and the operator will initial the pay card indicating his (the operator's) awareness of such failure and the reason. If the operator questions the reason for failure and the foreman does not alter the reason, the operator may follow the grievance procedure.

In addition, however, 37 of the agreements surveyed include explicit penalties for workers not meeting or exceeding the standard. Most prevalent are provisions stipulating general discipline, possibly including discharge. (See table 23.):

(149) Continued failure, or refusal, of an employee to produce on the basis of such production standards shall be considered due cause for discipline, including discharge, unless the failure is due to causes beyond his control. . . .

(150) If an employee fails to produce an average of 100% performance or above an accepted standard for a period of eighty (80) consecutive standard hours worked, he may be subject to disciplinary action.

As the degree of difficulty and skill required to perform the necessary work tasks may vary from job to job, a worker not meeting standards on one job may be capable of performing adequately on another. Provisions allowing the employer to reassign underperforming employees to a more suitable job classification were found in 10 agreements:

(151) The company may establish production standards and notify employees of standards or quotas they are required to meet. It is the policy of the company to seek out and correct causes of failure in cases where

standards are not met, including placing an employee on a more suitable job in the same or lower labor grade where appropriate, in which case the affected employee will be deemed to have filed a valid job request.

It is probably common practice to discipline for underperformance only as measured by permanent standards. During temporary or appealed standards, the criterion to evaluate a fair day's work has not been accepted by the parties, and it is tentative and uncertain. Clauses prohibiting discipline for failure to meet temporary or appealed standards occur in five agreements. Usually, this exemption from expected productivity requirements is contingent upon the employee exerting a genuine effort to perform adequately:

(152) The company agrees that it will not discipline any employee for failure to meet the standard and/or work requirements during this trial period during which time the employee will put forth a fair and honest effort.

(139) During the 30 day period after a new standard is introduced, or if a grievance is filed and until the dispute is resolved, an employee will not be disciplined in any way for failing to meet the new standards, provided he makes a good faith effort to meet such new standard.

Accepted production standards have been determined by the parties to be the expected output of a prescribed quality by using specified methods and equipment. The method of operation and the equipment on which the production standard is based are chosen to maximize quantity, quality, and worker safety, while minimizing cost and worker stress. Agreements with production standards occasionally contain clauses allowing discipline of workers failing to utilize the proper tools or method of production:

(153) When imposing discipline for failure to follow a prescribed method or for failure to use the tools provided in a proper manner, an employee will be informed in writing in what respect he failed to follow the method or use the tools. Upon request, the Chief Steward will also be given the reason.

Chapter 5. Time-Study Procedures

Part of the process of setting production standards is to make an analysis of the job to identify the major elements or components, and then measure or estimate the worktime required to complete each element or work cycle of the job according to specification. Of the 496 agreements referring to either incentives or production standards, 263 covering 1.5 million workers, almost all in manufacturing industries, contain provisions for setting production or incentive standards through the use of time studies or related measurement techniques. (See table 24.) These may include time measurements and studies, work sampling, production studies, and motion pictures. Although one or more methods may appear in the same agreement, time study is cited in 246 agreements:

(154) In setting wage incentive rates and allowances the company will utilize the best methods known to the extent it considers the same practicable for the operations for which the rates and allowances are to be set. The following methods may be used with respect to any such operations:

- time standards (including elemental time standards)
- time studies
- work sampling
- production studies
- motion picture camera studies
- other measuring techniques

(155) . . . In order to obtain the facts with respect to any department, or any portion thereof, or with respect to any job or operation, the company reserves the right to use all available means or methods, such as job analysis, time study of both machines and employees, methods study, motion study, the suggestions of supervisors, and the services of industrial engineers and other consultants. The union agrees to cooperate with the company on these studies and reserves the right to make suggestions. . . .

Conditions for time study

Many agreements establish the conditions under which time studies are to take place. Frequently, such a study is conducted whenever new operations are introduced or significant changes are made in existing ones. Some clauses require a time study if changes affect the job to a specific degree. Others limit a time study only to those elements of a job that have actually changed without affecting the rest of the operation:

(156) The company shall maintain an industrial engineering department to make time studies and methods analyses of any of its operations. . . .

(157) The introduction of new operations will require that time studies shall be made.

The introduction of changes in equipment, methods of processing, material processed, or quality of production standard shall require a new study on an existing operation having an incentive standard; changes in incentive standards resulting therefrom shall be limited to those resulting from the change in time of elements actually changed.

(146) When a job is changed to a different group of equipment or when changes are made in production methods, materials, tools, dies, number of men, change in equipment used or matters of similar nature, the job shall be restudied and/or re-evaluated when necessary and standard established in accordance with actual changes in the affected elements only.

Following establishment of incentive values, rates, and production standards, it may be discovered that they are incorrect. Correction of errors often requires the affected jobs to be subjected to another time study:

(158) It is understood and agreed by the parties hereto that the company may continue and/or install a piece work or incentive system in its plant. Such incentive plan must be mutually agreed to between the parties. In the event it does so, piece work or incentive rates shall be established by the time studies made by the company and same may be revised. Employees shall have the right to question the time study on any job which they believe to be improperly timed. In such event, the company shall cause an investigation to be made and if it believes that an error may have been committed, it shall cause such job to be retimed. In the event the result of such retiming is still questioned or in the event the company fails to retime such job, the matter may be handled according to the grievance procedure provided for in this agreement. It is understood and agreed that incentive rates will be so adjusted as to compensate employees working on the incentive basis for the rest periods without additional pay therefor.

(145) The [company] incentive systems afford an opportunity for extra earnings for extra effort and guarantee only the incentive guaranteed rate. The establishing of methods of manufacture, equipment to be used, and processes to be followed and the administration of the incentive systems will be management's responsibility.

This includes the establishing of time values for wage-payment purposes by the following methods: by time study, from formula or data, by comparison, or by estimate. The foregoing methods will be used for the purpose of establishing recorded or temporary time values on new work or for revising on changed work. Management agrees to correct immediately any time values which are questioned and found to be in error. If an operation with an old incentive standard is changed . . . a time study will be taken of the method before and after the change. The old incentive standard will be adjusted in direct proportion to the change in time between the old method and the new method, as shown by the time studies.

A time study also may be required at the request of the union or employees, often to aid in resolving a question or dispute concerning incentives values or production standards. To avoid prolonging rates or standards that later may be found inequitable, the clauses may stipulate that the time study must be completed within a given period:

- (159) Time study [department] agrees to restudy and, if necessary, retime any operations in which there is a dispute over standards. If the union requests, jobs will be retimed within 15 calendar days. . . .
- (160) If an operator makes a request through the union steward to the foreman that a particular operation be time studied, which has been previously established by basic data, and on which the operator believes there is an inequity in the standard time, the company shall time study such operation for the purpose of validating the application of the basic data. This time study should be taken, if practical, on the day on which the request is made and in no instances should the study be taken later than the second work day following such request.

Conducting the time study

Although many contracts limit the use of time studies to certain conditions, once these conditions are satisfied, management almost always unilaterally initiates the studies. However, union or joint studies sometimes are permitted under the same agreement in certain conditions—usually, retiming when a grievance or other dispute exists. Of the 246 time-study provisions, 225 or 91 percent establish the study as a management prerogative. (See table 25.):

- (161) It is expressly understood that the employees and the union shall not object to time studies or studies in efficiency in operation being made in the plant.
- (162) The company may study and establish a unit time allowed on any job at any time in accordance with standard time study practices and procedures. . . .
- (163) Time studies will be made by the management to establish the standards of production for the different operations and classified jobs on the basis of fairness and equity consistent with quality of workmanship,

efficiency of operations, and the reasonable capacity of normal operators. . . .

Under agreements with time-study provisions, 36 or 15 percent provide for the union to conduct a study, usually after a complaint has been filed. The time-study data may be subject to joint review by company and union. If the dispute cannot be resolved, a representative of the international union may be brought in to study the standard in dispute:

- (138) The union wage salary rate committeeman designated by the union will be permitted to conduct the legitimate duties of his office. . . . He will also be permitted to conduct time studies in the plant on a time standard on which there has been a dispute or complaint filed, provided notice is first given to the manufacturing standards and time study department and the job foreman of the department involved.

If the local union has been unable to resolve such incentive standard in dispute, a representative or representatives of the International Union designated by the union shall be permitted access to the employer's premises to conduct such examinations and study the standard in dispute upon prior notice to the manufacturing standards and time study department.

The data developed by the union relative to the disputed standard prior to Step 2 of the grievance procedure will be made available for review by the company with the wage salary and rate committeeman.

Over 10 percent of the agreements with time-study provisions permit management and union time-study engineers to make joint time studies, ordinarily to help settle a grievance. A common practice is for the union representative to report to the management time-study engineer for instructions on making the study. Each party will furnish to the other information and records concerning the time study. Under certain conditions, the requirement for filing a written grievance before making a time study may be waived:

- (2) In any case where a grievance involving such a rate has been processed through the step immediately preceding the industrial relations step in the grievance procedure, the company, upon request of the local union or the international union directed to the industrial relations department, thereafter will permit a designated union time study engineer or engineers to enter the local plant for the purpose of observing and making such time studies on the protested operation and on the identical or most similar equipment as are necessary in order to resolve the grievance. . . . The union time study engineer or engineers will first report to the designated company representatives for a discussion concerning taking such time studies, which studies shall be made in company with management representatives, and each party will furnish information and show records concerning such time studies. When such a joint study has been started neither party shall be permitted to stop the study on the basis of improper operations, except by agreement, but a notation

may be noted on the observation sheet and the operating conditions may be discussed subsequent to the study. With approval by the industrial relations department such a joint study may be arranged without the filing of a written grievance. It is the obligation of the parties to expedite the completion of joint studies and resolution of the disputes.

- (164) If any standard is grieved, it will be jointly rechecked by the continuous watch reading method by the employer and the rate committeeman. If a standard is grieved which involves an entire production department or is in the third stage of the grievance procedure, the union may, upon notification to the industrial relations department, arrange to have a union time study expert to jointly recheck with the company the standard which is the subject of the grievance. . . .

To resolve a dispute, an outside expert may be brought in, usually by the union, to investigate and make time studies. Qualified consultants also may be asked to serve as arbitrators in disputes of this kind:

- (165) . . . The union may elect to use the services of a designated time study engineer who shall be given all necessary facilities by the employer to investigate the dispute, make time studies and attempt to achieve a settlement.

Arbitration shall follow the regular procedure, except that only where both the union and the employer so desire, a technical arbitrator may be selected. . . .

- (166) . . . When, after the trial period, a dispute exists between the parties involving an incentive or piecework rate or standard, the company, on request of the union president, shall permit a time study engineer approved by the union to enter the plant for the purpose of making studies of the rate or standard in dispute in order that the union may be in a position to properly present its case to the company. . . .

Selection and training of union time-study personnel

Agreements that permit the union to singly or jointly conduct time studies also sometimes provide for the selection and training of the union time-study representatives. Under a common procedure, the union selects an employee for training, subject to management approval, and the company's time-study department provides the training.⁴ Under some agreements, during the training period, the union may pay the employee's wages:

- (167) The company will train an employee mutually agreed-upon by the union and the company in the theories and practices of wage incentive and time study to represent the union in any grievance arising

⁴In the absence of a local time-study representative, the local union also may obtain technical advice from time-study engineers on the staff of the international union. Under some circumstances, noted previously, international union representatives may be allowed access to the plant to conduct time studies or examine data.

on the administration of wage incentive or a time study within the plant. Arrangements will be made by the employee relations manager upon request of the union president to excuse this employee from his regular work for the necessary time required for this purpose. The union agrees that the time spent off his job will be held to a minimum.

- (137) The company will recognize one local union time study engineer, subject to the following requirements and conditions: Such individual shall be selected by the local union executive board subject to the approval of the company. The individual selected must be an employee of the company as well as a member of the local union.

A determination will be made by the company and the local union as to the qualifications and progress of the individual selected during the training period at such time as the company feels the individual is not making satisfactory progress necessary to qualify as a time study man.

The company will train the employee selected. The company will provide at its expense all material necessary to train the selected employee. This training period shall be of 60 calendar day's duration. Except as provided otherwise . . . in this agreement, the union shall pay the trainee all of his wages lost during the 60-day training period; provided, however, that if the trainee was selected to replace the immediately preceding local union time study engineer as the result of that engineer having been transferred by the company from a job in the factory bargaining unit to a position outside of that unit, the company shall pay the trainee all of his wages lost during the 60-day training period. . . .

Information to the union

Less than 20 percent of the agreements with time-study clauses provide for the union to receive advance notice that a job is scheduled for time study. (See table 26.) The worker may also be informed so that the action does not come as a surprise. Furthermore, advance notice may foster full cooperation:

- (168) When an operation is to be time studied, the department supervisor will inform the operator and the designated union representative of that fact.

- (35) It will be the practice for the company time study engineer to contact the steward in the department, giving him a brief outline of what study is to be made in the department.

- (169) In order for the company to maintain plant efficiency consistent with fair labor standards and good working conditions, the company may conduct industrial engineering studies, analysis of operations, time studies or other generally accepted methods to collect information necessary to provide efficient operations. The union will be notified in advance as to the time any such method of collecting information is to be undertaken, and will be informed of the particular method or methods of collecting information to be used.

Almost one-third of the agreements with time-study clauses provide for release to the union of time-study data used in setting production standards. (See table 26.) The data may be summaries of time studies showing elemental actual time, frequencies, and fatigue allowances:

- (81) Wage rates and time studies will be available to the union at all times.
- (77) On request by the union representative assigned to the situation, the company agrees to provide at the close of the trial period summaries of the individual overall time studies showing the elemental actual times, frequencies, and fatigue allowance. . . .

In a few agreements, the company notifies the union of time-study results. This notice usually contains a brief description of the new production standard and its effective date:

- (170) The company shall notify the union office and the labor standards committee when, as a result of time study a new standard becomes effective and is placed in bulletin form.
- (150) After carrying out this joint study, the company shall advise the appropriate union time study representative of the results of the study. . . .

Employee performance during time study

Some agreements require a time test of a normal performance of an "average" operator—usually an experienced employee from the operation selected for study—to ensure collecting accurate data for setting a fair production standard. (See table 27.) Since the worker selected should be familiar with the process, tools, equipment, and materials used in the performance of the job, he serves to establish the reliability of the time-study data:

- (45) When a job is being timed or retimed, or a time study is being taken or retaken, or a rate is being checked or rechecked, the test shall be made on an average operator whenever possible, and no employee shall undertake any action to influence or interfere with taking, making or determining such a test. If the company questions the normal performance of the operator in making said time study, he shall have the right to use other reasonable means to secure and assure a fair time study, including the right to use another average operator(s).
- (171) . . . In cases of disagreement, the price committee and the employer shall jointly agree to testers selected among the workers of the shop. In selecting testers the following rule shall be observed: The average worker of that department shall be selected as the basis. The time consumed by such selected worker shall be computed on the hourly rate set forth in this agreement; the time consumed on the garment disputed shall be made under the same conditions between the employer and

the price committee and if it should develop that the price is unsatisfactory, the employees shall continue to work on the lot agreed upon until such time as the price committee refigures, at which time the new price shall be retroactive to the time when work began on the lot in question. . . .

Some agreements set forth the obligations and qualifications of a worker to be studied. The individual is expected to know all aspects of the job and do it well. In addition, the worker is expected to cooperate and comply with all instructions. The resulting time-study data should be a measure of a representative performance of a worker:

- (172) In establishing incentive standards the workman in cooperation with the foreman and time-study man shall perform the operation in exact accordance with the method prescribed by the company for that operation, and shall try out the operation a sufficient number of times to establish a set time for the operation. Where the same operation is performed by more than one worker, and if requested by the union, a time study shall be made on the majority of the employees involved, provided, however, that at no time shall the company be required to study more than 5 operators in order to set a standard on the job.
- (84) . . . The employee, when being so time studied, shall perform his work in accordance with the directions of the company and shall otherwise cooperate to give a performance which is representative of the conditions existing at the time the study is made. . . .

It is a tendency for some workers who are being timed to "stretch out the time" in the hope that loose standards will be set. This, of course, violates principles of fair standards and incentives as much as a management effort to restrict the study to exceptionally fast workers. Many of the clauses stress the responsibility of the workers being timed to work at a normal pace, and some establish the observer's duty to determine that a normal pace is set before making the study:

- (135) While a time study is being made, the employee or employees whose work is being timed: Shall work at a normal pace and shall not slow down or stretch out their work or resort to any means whatsoever, which would result in a loose standard or a false time cycle being established or obtained.
- (63) Rates set by the stopwatch method or standards will only be set on operators, in the occupation, familiar with the job. Such operators are required to perform these duties at a normal work pace, while being timed. Any disagreement as to the meaning of a normal work pace shall be subject to the grievance procedure.

Length of time study

The output even of the most cooperative and conscientious worker may vary, and a time study limited to a few cycles may be erroneous. Over longer periods, the "law of averages" tends to eliminate such variations.

Consequently, some agreements require time studies to be of sufficient duration to minimize errors in the data:

- (173) When establishing a standard by stopwatch study, such studies will be of sufficient duration to assure a sound standard.
- (164) All continuous watch studies shall be for a minimum of 30 minutes or 15 complete operations. On operations with cycle time of less than one-half minute, a minimum of 45 cycles will be observed.
- (128) The total of time studies made by stop-watch or continuous watch reading on any operation in the manufacturing division shall require a minimum of 10 minutes. If such a time study is disputed, a study will be made for a minimum of 30 minutes.

Some elements of a timed job may be performed at irregular intervals or at longer than the regular cycle or routine. The duration of a time study occasionally is

extended to provide data on both cyclic and noncyclic elements of the operation:

- (148) In setting rates standards department personnel, upon the request of the person being studied, will increase the amount of time, within reason, spent taking studies in order to obtain additional information to aid in the establishment of non-cyclic elements.

In some instances, the duration of a time study may vary according to the type of operation and the elements of the operation selected for study:

- (75) Generally speaking, studies will vary in length from 30 minutes to 2 hours, depending upon the type of operation. Elements of an operation will be selected so that the minimum record time of an element will not be less than six-tenths of a minute. . . . This procedure shall also be followed by any outside time-study people from the International Union.

Table 1. Unit or time basis of incentive payment in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	All agreements		Total with incentive provisions		Type of incentive plan							
	Agreements	Workers	Agreements	Workers	Piecework		Standard hour		Piecework and standard hour		Unable to determine	
					Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	1,438	6,982.9	442	2,880.2	190	999.6	70	203.3	67	446.5	115	1,230.8
Manufacturing.....	749	3,679.1	418	2,674.0	180	961.9	67	196.2	65	425.1	106	1,090.8
Ordnance, accessories.....	16	32.3	2	6.1	1	4.2	1	1.9	-	-	-	-
Food, kindred products.....	105	293.5	35	160.8	14	50.5	2	3.2	1	4.0	18	103.1
Tobacco manufacturing.....	8	26.4	4	11.1	3	7.0	-	-	-	-	-	-
Textile mill products.....	13	38.8	11	34.2	9	25.0	1	1.2	-	-	1	8.0
Apparel.....	44	452.5	43	444.0	40	435.9	-	-	-	3.4	2	4.7
Lumber, wood products.....	5	10.9	4	7.4	3	5.2	-	-	1	2.2	-	-
Furniture, fixtures.....	19	30.0	8	12.4	2	3.9	3	3.6	1	1.5	2	3.4
Paper, allied products.....	49	96.6	8	12.8	2	2.9	2	2.8	-	-	4	7.1
Printing and publishing.....	23	47.2	3	3.5	3	3.5	-	-	-	-	-	-
Chemicals.....	42	100.6	11	26.0	3	8.3	-	-	1	6.7	7	11.0
Petroleum refining.....	12	24.0	1	4.5	-	-	-	-	-	4.5	1	4.5
Rubber and plastics.....	17	82.3	15	76.6	10	70.3	2	2.9	2	2.3	1	1.1
Leather products.....	17	43.0	16	44.0	15	42.9	-	-	-	-	1	1.0
Stone, clay, and glass.....	27	82.1	26	80.3	10	30.6	2	3.5	1	1.4	13	44.8
Primary metals.....	76	477.8	66	462.6	6	9.3	15	90.8	34	339.4	11	23.1
Fabricated metals.....	27	80.1	21	53.4	3	4.0	5	7.9	6	13.2	7	28.3
Machinery.....	74	257.1	48	128.1	17	61.3	11	19.2	10	29.4	10	18.1
Electrical machinery.....	83	408.7	53	309.8	10	99.4	19	52.3	5	18.0	19	140.0
Transportation equipment.....	79	1,052.3	31	770.1	20	76.5	3	5.0	2	3.4	6	685.1
Instruments.....	7	16.9	5	8.1	3	4.8	1	2.0	-	-	1	1.3
Miscellaneous manufacturing.....	8	21.1	7	18.0	6	16.2	-	-	-	-	1	1.8
Nonmanufacturing.....	689	3,303.8	24	206.2	10	37.6	3	7.1	2	21.4	9	140.0
Mining, crude petroleum, and natural gas.....	11	148.6	7	136.5	-	-	1	3.1	1	1.4	5	132.0
Transportation.....	65	572.8	1	20.0	-	-	-	-	1	20.0	-	-
Communication.....	65	495.7	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	47	134.1	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	12	22.3	-	-	-	-	-	-	-	-	-	-
Retail trade.....	87	290.0	6	12.0	-	-	2	4.0	-	-	4	8.0
Hotels and restaurants.....	42	187.9	-	-	-	-	-	-	-	-	-	-
Services.....	68	367.2	8	32.1	8	32.1	-	-	-	-	-	-
Construction.....	290	1,082.9	2	5.5	2	5.5	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	2	2.5	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.

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

Table 2. Group or individual basis for incentive earnings calculations in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Group or individual incentive plans							
	Agreements	Workers	Group		Individual		Both		Unable to determine	
			Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	64	290.8	17	67.6	99	532.2	262	1,989.6
Manufacturing.....	418	2,674.0	62	269.3	17	67.6	98	529.6	241	1,807.4
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-	2	6.1
Food, kindred products.....	35	160.8	8	36.5	2	3.3	9	80.3	16	40.6
Tobacco manufacturing.....	4	11.1	-	-	-	-	1	1.0	3	10.1
Textile mill products.....	11	34.2	4	9.3	1	8.0	2	3.3	4	13.5
Apparel.....	43	444.0	2	45.1	5	31.0	2	3.9	34	363.9
Lumber, wood products.....	4	7.4	-	-	-	-	-	-	4	7.4
Furniture, fixtures.....	8	12.4	-	-	-	-	4	5.9	4	6.5
Paper, allied products.....	8	12.8	-	-	-	-	1	1.6	7	11.1
Printing and publishing.....	3	3.5	-	-	-	-	-	-	3	3.5
Chemicals.....	11	26.0	3	10.3	-	-	-	-	8	15.7
Petroleum refining.....	1	4.5	-	-	-	-	-	-	1	4.5
Rubber and plastics.....	15	76.6	4	43.6	-	-	7	26.1	4	6.9
Leather products.....	16	44.0	-	-	1	6.0	1	1.0	14	36.9
Stone, clay, and glass.....	26	80.3	1	1.4	3	7.7	7	39.9	15	31.3
Primary metals.....	66	462.6	5	8.1	-	-	16	116.4	45	338.0
Fabricated metals.....	21	53.4	1	1.8	2	2.3	6	12.5	12	36.8
Machinery.....	48	128.1	12	51.5	2	3.4	14	24.5	20	48.6
Electrical machinery.....	53	309.8	17	53.6	1	5.8	21	183.2	14	67.1
Transportation equipment.....	31	770.1	3	4.4	-	-	6	21.8	22	743.9
Instruments.....	5	8.1	2	3.5	-	-	-	-	3	4.6
Miscellaneous manufacturing	7	18.0	-	-	-	-	1	8.0	6	10.0
Nonmanufacturing.....	24	206.2	2	21.4	-	-	1	2.6	21	182.2
Mining, crude petroleum, and natural gas.....	7	136.5	1	1.4	-	-	-	-	6	135.1
Transportation.....	1	20.0	1	20.0	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	-	-	-	-	1	2.6	5	9.4
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	8	32.1	-	-	-	-	-	-	8	32.1
Construction.....	2	5.5	-	-	-	-	-	-	2	5.5
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.

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

Table 3. Procedure in change to different incentive plan in major collective bargaining agreements, 1977

(Workers in thousands)

Industry	Agreements	Workers
Total with incentive provisions	442	2,880.2
Total referring to procedure for change in plan.....	68	445.9
Management right.....	26	95.6
Union-management negotiation.....	37	315.9
Matter for local determination.....	3	24.9
No change during life of agreement.....	2	9.4

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

Table 4. Extension of incentive coverage to existing jobs in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Extension of coverage						
	Agreements	Workers	Total		Management right		Union-management negotiation		
			Agreements	Workers	Agreements	Workers	Agreements	Workers	
All industries.....	442	2,880.2	184	942.1	136	697.3	45	260.3	
Manufacturing.....	418	2,674.0	176	912.6	129	682.7	44	245.3	
Ordnance, accessories.....	2	6.1	1	1.9	1	1.9	-	-	
Food, kindred products.....	35	160.8	11	85.6	5	19.3	4	63.3	
Tobacco manufacturing.....	4	11.1	1	4.1	1	4.1	-	-	
Textile mill products.....	11	34.2	6	16.2	5	8.2	1	8.0	
Apparel.....	43	444.0	6	19.8	1	1.8	4	13.5	
Lumber, wood products.....	4	7.4	2	3.6	-	-	2	3.6	
Furniture, fixtures.....	8	12.4	3	5.1	3	5.1	-	-	
Paper, allied products.....	8	12.8	4	6.0	2	2.8	2	3.3	
Printing and publishing.....	3	3.5	-	-	-	-	-	-	
Chemicals.....	11	26.0	4	11.0	2	3.0	-	-	
Petroleum refining.....	1	6.5	1	4.5	1	4.5	-	-	
Rubber and plastics.....	15	76.6	8	50.6	5	47.0	2	18.4	
Leather products.....	16	44.0	8	29.9	7	28.9	-	-	
Stone, clay, and glass.....	26	80.3	12	37.4	10	26.6	1	8.4	
Primary metals.....	66	462.6	45	408.4	40	391.3	9	36.1	
Fabricated metals.....	21	53.4	6	10.9	3	3.4	3	7.5	
Machinery.....	48	128.1	14	36.3	12	33.4	3	5.4	
Electrical machinery.....	53	309.8	31	137.2	23	79.3	9	61.8	
Transportation equipment.....	31	770.1	9	31.2	5	17.3	3	7.9	
Instruments.....	5	8.1	3	4.6	3	4.6	-	-	
Miscellaneous manufacturing.....	7	18.0	1	8.0	-	-	1	8.0	
Nonmanufacturing.....	24	206.2	8	29.5	7	14.5	1	15.0	
Mining, crude petroleum, and natural gas.....	7	136.5	3	5.7	3	5.7	-	-	
Transportation.....	1	20.0	-	-	-	-	-	-	
Communication.....	-	-	-	-	-	-	-	-	
Utilities, electric and gas.....	-	-	-	-	-	-	-	-	
Wholesale trade.....	-	-	-	-	-	-	-	-	
Retail trade.....	6	12.0	1	1.3	1	1.3	-	-	
Hotels and restaurants.....	-	-	-	-	-	-	-	-	
Services.....	8	32.1	4	22.5	3	7.5	1	15.0	
Construction.....	2	5.5	-	-	-	-	-	-	
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	
Extension of coverage -- Continued									
			Subject to employee approval				Unable to determine		No reference to extension of coverage
			Agreements	Workers	Agreements	Workers	Agreements	Workers	
All industries.....			5	15.3	7	14.5	258	1,938.0	
Manufacturing.....			5	15.3	7	14.5	242	1,761.4	
Ordnance, accessories.....			-	-	-	-	1	4.2	
Food, kindred products.....			-	1.5	1	1.5	24	75.1	
Tobacco manufacturing.....			-	-	-	-	3	7.0	
Textile mill products.....			-	-	-	-	5	18.0	
Apparel.....			1	4.5	-	-	37	424.2	
Lumber, wood products.....			-	-	-	-	2	3.8	
Furniture, fixtures.....			-	-	-	-	5	7.3	
Paper, allied products.....			-	-	-	-	4	6.8	
Printing and publishing.....			-	-	-	-	3	3.5	
Chemicals.....			1	6.7	1	1.3	7	15.0	
Petroleum refining.....			-	-	-	-	-	-	
Rubber and plastics.....			-	-	2	2.3	7	26.0	
Leather products.....			-	-	1	1.0	8	14.0	
Stone, clay, and glass.....			1	1.1	1	2.4	14	42.9	
Primary metals.....			-	-	-	-	21	54.1	
Fabricated metals.....			-	-	-	-	15	42.5	
Machinery.....			-	-	-	-	34	91.8	
Electrical machinery.....			1	1.5	-	-	22	172.6	
Transportation equipment.....			-	-	1	6.0	22	738.9	
Instruments.....			-	-	-	-	2	3.5	
Miscellaneous manufacturing.....			-	-	-	-	6	10.0	
Nonmanufacturing.....			-	-	-	-	16	176.6	
Mining, crude petroleum, and natural gas.....			-	-	-	-	4	130.8	
Transportation.....			-	-	-	-	1	20.0	
Communication.....			-	-	-	-	-	-	
Utilities, electric and gas.....			-	-	-	-	-	-	
Wholesale trade.....			-	-	-	-	5	10.7	
Retail trade.....			-	-	-	-	-	-	
Hotels and restaurants.....			-	-	-	-	4	9.6	
Services.....			-	-	-	-	2	5.5	
Construction.....			-	-	-	-	-	-	
Miscellaneous nonmanufacturing.....			-	-	-	-	-	-	

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 5. Extension of incentive coverage to new jobs in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Extension of coverage to new jobs					
	Agreements	Workers	Total		Management right		Union-management negotiation	
			Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	103	597.2	54	306.9	7	34.8
Manufacturing.....	418	2,674.0	101	594.6	53	305.7	7	34.8
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-
Food, kindred products.....	35	160.8	2	8.5	2	8.5	-	-
Tobacco manufacturing.....	4	11.1	1	4.1	1	4.1	-	-
Textile mill products.....	11	34.2	7	20.1	3	14.1	-	-
Apparel.....	43	444.0	3	6.0	-	-	2	4.8
Lumber, wood products.....	4	7.4	1	1.4	-	-	1	1.4
Furniture, fixtures.....	8	12.4	1	1.5	-	-	-	-
Paper, allied products.....	8	12.8	2	2.8	1	1.1	1	1.7
Printing and publishing.....	3	3.5	-	-	-	-	-	-
Chemicals.....	11	26.0	-	-	-	-	-	-
Petroleum refining.....	1	4.5	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	5	48.7	2	26.5	1	17.1
Leather products.....	16	44.0	7	24.1	4	12.9	-	-
Stone, clay, and glass.....	26	80.3	5	20.7	4	12.3	-	-
Primary metals.....	66	462.6	41	397.0	15	174.6	2	9.8
Fabricated metals.....	21	53.4	6	11.6	4	9.1	-	-
Machinery.....	48	128.1	11	28.0	9	24.4	-	-
Electrical machinery.....	53	309.8	5	8.4	5	8.4	-	-
Transportation equipment.....	31	770.1	2	8.0	1	6.0	-	-
Instruments.....	5	8.1	1	1.2	-	-	-	-
Miscellaneous manufacturing.....	7	18.0	1	1.8	1	1.8	-	-
Nonmanufacturing.....	24	206.2	2	2.6	1	1.2	-	-
Mining, crude petroleum, and natural gas.....	7	136.5	2	2.6	1	1.2	-	-
Transportation ¹	1	20.0	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	8	32.1	-	-	-	-	-	-
Construction.....	2	5.5	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-
			Extension of coverage to new jobs -- Continued				No reference to extension of coverage to new jobs	
			Discussion, union approval not needed		Automatic		Agreements	Workers
			Agreements	Workers	Agreements	Workers		
All industries.....			36	245.0	6	10.4	339	2,283.0
Manufacturing.....			36	245.0	5	9.0	317	2,079.4
Ordnance, accessories.....			-	-	-	-	2	6.1
Food, kindred products.....			-	-	-	-	33	152.3
Tobacco manufacturing.....			-	-	-	-	3	7.0
Textile mill products.....			3	4.8	1	1.3	4	14.1
Apparel.....			1	1.3	-	-	40	437.9
Lumber, wood products.....			-	-	-	-	3	6.0
Furniture, fixtures.....			1	1.5	-	-	7	10.9
Paper, allied products.....			-	-	-	-	6	10.0
Printing and publishing.....			-	-	-	-	3	3.5
Chemicals.....			-	-	-	-	11	26.0
Petroleum refining.....			-	-	-	-	1	4.5
Rubber and plastics.....			1	3.8	1	1.3	10	27.9
Leather products.....			1	6.0	2	5.3	9	19.8
Stone, clay, and glass.....			1	8.4	-	-	21	59.6
Primary metals.....			24	212.6	-	-	25	65.5
Fabricated metals.....			1	1.2	1	1.3	15	41.8
Machinery.....			2	3.5	-	-	37	100.1
Electrical machinery.....			-	-	-	-	48	301.4
Transportation equipment.....			1	2.0	-	-	29	762.1
Instruments.....			-	-	-	-	4	6.3
Miscellaneous manufacturing.....			-	-	-	-	6	16.2
Nonmanufacturing.....			-	-	1	1.4	22	203.6
Mining, crude petroleum, and natural gas.....			-	-	1	1.4	5	133.9
Transportation ¹			-	-	-	-	1	20.0
Communication.....			-	-	-	-	-	-
Utilities, electric and gas.....			-	-	-	-	-	-
Wholesale trade.....			-	-	-	-	-	-
Retail trade.....			-	-	-	-	6	12.0
Hotels and restaurants.....			-	-	-	-	-	-
Services.....			-	-	-	-	8	32.1
Construction.....			-	-	-	-	2	5.5
Miscellaneous nonmanufacturing.....			-	-	-	-	-	-

¹Excludes railroads and airlines.

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

Table 6. Withdrawal of incentive coverage from existing jobs in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Withdrawal of coverage					
	Agreements	Workers	Total		Management right		Union-management negotiation	
			Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	104	930.1	64	214.0	34	192.5
Manufacturing.....	418	2,674.0	99	920.0	59	203.9	34	192.5
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-
Food, kindred products.....	35	160.8	5	12.3	4	10.3	1	2.0
Tobacco manufacturing.....	4	11.1	1	4.1	1	4.1	-	-
Textile mill products.....	11	34.2	6	13.4	6	18.4	-	-
Apparel.....	43	444.0	6	25.3	-	-	4	13.5
Lumber, wood products.....	4	7.4	2	3.6	-	-	2	3.6
Furniture, fixtures.....	8	12.4	-	-	-	-	-	-
Paper, allied products.....	8	12.8	2	3.0	2	3.0	-	-
Printing and publishing.....	3	3.5	-	-	-	-	-	-
Chemicals.....	11	26.0	3	5.5	2	3.0	1	2.5
Petroleum refining.....	1	4.5	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	4	11.0	3	9.8	1	1.3
Leather products.....	16	44.0	6	27.5	5	20.5	1	7.0
Stone, clay, and glass.....	26	80.3	9	43.6	3	8.9	6	34.6
Primary metals.....	66	462.6	18	167.0	6	29.7	11	68.6
Fabricated metals.....	21	53.4	2	20.8	-	-	1	3.8
Machinery.....	48	128.1	6	15.6	3	14.4	1	1.2
Electrical machinery.....	53	369.8	22	104.0	20	69.1	2	34.9
Transportation equipment.....	31	770.1	7	448.5	3	11.0	2	11.5
Instruments.....	5	8.1	1	1.5	1	1.5	-	-
Miscellaneous manufacturing.....	7	13.0	1	8.0	-	-	1	8.0
Nonmanufacturing.....	24	206.2	5	10.1	5	10.1	-	-
Mining, crude petroleum, and natural gas.....	7	136.5	2	4.3	2	4.3	-	-
Transportation ¹	1	20.0	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	8	32.1	3	5.8	3	5.8	-	-
Construction.....	2	5.5	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-

Withdrawal of coverage -- Continued						No reference to withdrawal of coverage	
Subject to employee approval				Other ²		Agreements	Workers
Agreements	Workers	Agreements	Workers	Agreements	Workers		
All industries.....	3	80.5	3	443.0	338	1,950.0	
Manufacturing.....	3	80.5	3	443.0	319	1,754.0	
Ordnance, accessories.....	-	-	-	-	2	6.1	
Food, kindred products.....	-	-	-	-	30	148.5	
Tobacco manufacturing.....	-	-	-	-	3	7.0	
Textile mill products.....	-	-	-	-	5	15.8	
Apparel.....	2	11.8	-	-	37	418.6	
Lumber, wood products.....	-	-	-	-	2	3.8	
Furniture, fixtures.....	-	-	-	-	8	12.4	
Paper, allied products.....	-	-	-	-	6	9.8	
Printing and publishing.....	-	-	-	-	3	3.5	
Chemicals.....	-	-	-	-	8	20.5	
Petroleum refining.....	-	-	-	-	1	4.5	
Rubber and plastics.....	-	-	-	-	11	65.6	
Leather products.....	-	-	-	-	10	16.4	
Stone, clay, and glass.....	-	-	-	-	17	36.8	
Primary metals.....	1	68.7	-	-	48	295.6	
Fabricated metals.....	-	-	1	17.0	19	32.6	
Machinery.....	-	-	-	-	44	112.5	
Electrical machinery.....	-	-	-	-	31	205.8	
Transportation equipment.....	-	-	2	426.0	24	321.6	
Instruments.....	-	-	-	-	4	6.6	
Miscellaneous manufacturing.....	-	-	-	-	6	10.0	
Nonmanufacturing.....	-	-	-	-	19	196.0	
Mining, crude petroleum, and natural gas.....	-	-	-	-	5	132.3	
Transportation ¹	-	-	-	-	1	20.0	
Communication.....	-	-	-	-	-	-	
Utilities, electric and gas.....	-	-	-	-	-	-	
Wholesale trade.....	-	-	-	-	-	-	
Retail trade.....	-	-	-	-	6	12.0	
Hotels and restaurants.....	-	-	-	-	-	-	
Services.....	-	-	-	-	5	26.3	
Construction.....	-	-	-	-	2	5.5	
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	

¹Excludes railroads and airlines.

²Includes 3 agreements with withdrawal of incentive coverage subject to local negotiation.

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

Table 7. Method for handling incentive worker underperformance in major collective bargaining agreements, 1977

(Workers in thousands)

Industry	Agreements	Workers
Total with incentive provisions	442	2,880.2
Total referring to underperformance.....	44	236.5
Investigation.....	4	17.1
Discipline.....	18	79.5
Investigation and discipline.....	6	16.0
Underperformance permitted.....	13	116.6
Investigation and permitted.....	3	7.3
No reference to underperformance.....	398	2,643.6

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

Table 8. Circumstances allowing management to change incentive rates in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Circumstances allowing change					
	Agreements	Workers	Total		Job content changes		Clerical or computational errors	
			Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	204	990.9	109	617.4	13	40.3
Manufacturing.....	418	2,674.0	195	956.5	103	590.5	11	34.8
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-
Food, kindred products.....	35	160.8	11	99.9	5	23.6	1	2.0
Tobacco manufacturing.....	4	11.1	-	-	-	-	-	-
Textile mill products.....	11	34.2	7	21.0	6	19.9	-	-
Apparel.....	43	444.0	7	24.0	7	24.0	-	-
Lumber, wood products.....	4	7.4	1	2.2	-	-	-	-
Furniture, fixtures.....	8	12.4	1	1.0	-	-	-	-
Paper, allied products.....	8	12.8	3	4.4	2	2.8	-	-
Printing and publishing.....	3	3.5	-	-	-	-	-	-
Chemicals.....	11	26.0	4	12.2	4	12.2	-	-
Petroleum refining.....	1	4.5	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	12	72.8	7	44.2	1	1.3
Leather products.....	16	44.0	9	26.2	4	5.3	2	9.5
Stone, clay, and glass.....	26	80.3	12	41.9	5	14.2	-	-
Primary metals.....	66	462.6	50	415.9	26	330.0	3	5.9
Fabricated metals.....	21	53.4	9	15.6	4	7.3	-	-
Machinery.....	48	128.1	22	50.1	10	25.0	2	2.8
Electrical machinery.....	53	309.8	30	115.3	9	33.3	2	13.3
Transportation equipment.....	31	770.1	11	38.2	9	34.8	-	-
Instruments.....	5	8.1	2	3.1	1	1.3	-	-
Miscellaneous manufacturing.....	7	18.0	4	12.5	4	12.5	-	-
Nonmanufacturing.....	24	206.2	9	34.4	6	26.9	2	5.4
Mining, crude petroleum, and natural gas.....	7	136.5	4	8.8	1	1.4	2	5.4
Transportation ¹	1	20.0	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	8	32.1	5	25.5	5	25.5	-	-
Construction.....	2	5.5	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-

Industry	Circumstances allowing change -- Continued				No reference to circumstances allowing change	
	Job content changes and errors		Rate changed at management discretion		Agreements	Workers
	Agreements	Workers	Agreements	Workers		
All industries.....	74	304.4	8	28.8	238	1,889.3
Manufacturing.....	73	302.4	8	28.8	223	1,717.5
Ordnance, accessories.....	-	-	-	-	2	6.1
Food, kindred products.....	5	74.3	-	-	24	60.8
Tobacco manufacturing.....	-	-	-	-	4	11.1
Textile mill products.....	-	-	1	1.1	4	13.1
Apparel.....	-	-	-	-	36	420.0
Lumber, wood products.....	1	2.2	-	-	3	5.2
Furniture, fixtures.....	1	1.0	-	-	7	11.4
Paper, allied products.....	1	1.7	-	-	5	8.3
Printing and publishing.....	-	-	-	-	3	3.5
Chemicals.....	-	-	-	-	7	13.8
Petroleum refining.....	-	-	-	-	1	4.5
Rubber and plastics.....	4	27.3	-	-	3	3.8
Leather products.....	3	11.4	-	-	7	17.8
Stone, clay, and glass.....	-	-	7	27.7	14	38.4
Primary metals.....	21	79.9	-	-	16	46.7
Fabricated metals.....	5	8.3	-	-	12	37.8
Machinery.....	10	22.3	-	-	26	78.0
Electrical machinery.....	19	68.7	-	-	23	194.5
Transportation equipment.....	2	3.4	-	-	20	731.9
Instruments.....	1	1.8	-	-	3	5.0
Miscellaneous manufacturing.....	-	-	-	-	3	5.5
Nonmanufacturing.....	1	2.0	-	-	15	171.8
Mining, crude petroleum, and natural gas.....	1	2.0	-	-	3	127.7
Transportation ¹	-	-	-	-	1	20.0
Communication.....	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-
Retail trade.....	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	6	12.0
Services.....	-	-	-	-	-	-
Construction.....	-	-	-	-	3	6.6
Miscellaneous nonmanufacturing.....	-	-	-	-	2	5.5

¹Excludes railroads and airlines.

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

Table 9. Circumstances allowing union or employee to request a change in incentive rates in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Reasons for request					
	Agreements	Workers	Total		Right of request is specified in contract		Alleged error or inequity	
			Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	80	472.9	48	346.9	29	116.2
Manufacturing.....	418	2,674.0	80	472.9	48	346.9	29	116.2
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-
Food, kindred products.....	35	160.8	2	8.5	1	2.0	-	-
Tobacco manufacturing.....	4	11.1	-	-	-	-	-	-
Textile mill products.....	11	34.2	1	2.2	1	2.2	-	-
Apparel.....	43	444.0	4	17.0	3	11.0	1	6.0
Lumber, wood products.....	4	7.4	-	-	-	-	-	-
Furniture, fixtures.....	8	12.4	1	1.5	1	1.5	-	-
Paper, allied products.....	8	12.8	1	1.6	-	-	1	1.6
Printing and publishing.....	3	3.5	1	1.0	-	-	1	1.0
Chemicals.....	11	26.0	-	-	-	-	-	-
Petroleum refining.....	1	4.5	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	1	23.8	-	-	1	23.8
Leather products.....	16	44.0	6	17.3	1	1.0	5	16.3
Stone, clay, and glass.....	26	80.3	4	16.1	-	-	4	16.1
Primary metals.....	66	462.6	33	311.9	32	309.9	1	1.9
Fabricated metals.....	21	53.4	2	2.3	1	1.3	1	1.0
Machinery.....	48	128.1	9	14.5	5	8.4	4	6.1
Electrical machinery.....	53	309.8	11	47.5	3	9.5	7	36.0
Transportation equipment.....	31	770.1	3	6.2	-	-	3	6.2
Instruments.....	5	8.1	-	-	-	-	-	-
Miscellaneous manufacturing.....	7	18.0	1	1.3	-	-	-	-
Nonmanufacturing.....	24	206.2	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	7	136.5	-	-	-	-	-	-
Transportation ¹	1	20.0	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	8	32.1	-	-	-	-	-	-
Construction.....	2	5.5	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-
			Reasons for request -- Continued				No reference to request for change	
			Right specified in contract or error alleged		Other ²		Agreements	Workers
			Agreements	Workers	Agreements	Workers		
All industries.....			1	2.0	2	7.8	362	2,407.3
Manufacturing.....			1	2.0	2	7.8	338	2,201.1
Ordnance, accessories.....			-	-	-	-	2	6.1
Food, kindred products.....			-	-	1	6.5	33	152.3
Tobacco manufacturing.....			-	-	-	-	4	11.1
Textile mill products.....			-	-	-	-	10	32.0
Apparel.....			-	-	-	-	39	427.0
Lumber, wood products.....			-	-	-	-	4	7.4
Furniture, fixtures.....			-	-	-	-	7	10.9
Paper, allied products.....			-	-	-	-	7	11.1
Printing and publishing.....			-	-	-	-	2	2.5
Chemicals.....			-	-	-	-	11	26.0
Petroleum refining.....			-	-	-	-	1	4.5
Rubber and plastics.....			-	-	-	-	14	52.9
Leather products.....			-	-	-	-	10	26.6
Stone, clay, and glass.....			-	-	-	-	22	64.2
Primary metals.....			-	-	-	-	33	150.7
Fabricated metals.....			-	-	-	-	19	51.1
Machinery.....			-	-	-	-	39	113.5
Electrical machinery.....			1	2.0	-	-	42	262.3
Transportation equipment.....			-	-	-	-	28	763.9
Instruments.....			-	-	-	-	5	8.1
Miscellaneous manufacturing.....			-	-	1	1.3	6	16.7
Nonmanufacturing.....			-	-	-	-	24	206.2
Mining, crude petroleum, and natural gas.....			-	-	-	-	7	136.5
Transportation ¹			-	-	-	-	1	20.0
Communication.....			-	-	-	-	-	-
Utilities, electric and gas.....			-	-	-	-	-	-
Wholesale trade.....			-	-	-	-	-	-
Retail trade.....			-	-	-	-	6	12.0
Hotels and restaurants.....			-	-	-	-	-	-
Services.....			-	-	-	-	8	32.1
Construction.....			-	-	-	-	2	5.5
Miscellaneous nonmanufacturing.....			-	-	-	-	-	-

¹ Excludes railroads and airlines.

² Includes 2 agreements allowing union or employees to request a change in incentive rates, but circumstances are not specified.

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

Table 10. Union role in the rate-setting and resetting process in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Union role							
	Agreements	Workers	Total		Discussion with management		Negotiation with management		Grievance only	
			Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	219	1,090.0	32	128.3	25	244.9	38	180.8
Manufacturing.....	418	2,674.0	212	1,064.4	31	126.9	25	244.9	35	174.6
Ordnance, accessories.....	2	6.1	1	1.9	1	1.9	-	-	-	-
Food, kindred products.....	35	160.8	12	98.8	1	1.5	1	55.0	2	57.0
Tobacco manufacturing.....	4	11.1	-	-	-	-	-	-	-	-
Textile mill products.....	11	34.2	7	21.8	3	4.3	1	1.9	-	-
Apparel.....	43	444.0	25	168.5	-	-	7	65.9	1	7.3
Lumber, wood products.....	4	7.4	1	2.2	-	-	-	-	-	-
Furniture, fixtures.....	8	12.4	3	5.2	-	-	-	-	-	-
Paper, allied products.....	8	12.8	3	4.4	-	-	-	-	-	-
Printing and publishing.....	3	3.5	1	1.0	-	-	-	-	-	-
Chemicals.....	11	26.0	3	5.9	-	-	-	-	-	-
Petroleum refining.....	1	4.5	-	-	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	12	71.3	1	1.3	2	25.0	3	19.4
Leather products.....	16	44.0	13	38.3	-	-	4	20.5	-	-
Stone, clay, and glass.....	26	80.3	12	40.8	3	16.9	-	-	2	2.6
Primary metals.....	66	462.6	47	386.3	10	61.8	6	66.8	4	11.1
Fabricated metals.....	21	53.4	9	19.1	-	-	2	6.5	3	6.7
Machinery.....	48	128.1	20	49.2	1	1.1	-	-	4	10.7
Electrical machinery.....	53	309.8	29	100.5	6	21.6	2	3.3	15	58.6
Transportation equipment.....	31	770.1	9	34.7	4	14.8	-	-	1	1.0
Instruments.....	5	8.1	3	4.6	-	-	-	-	-	-
Miscellaneous manufacturing.....	7	18.0	2	9.8	1	1.8	-	-	-	-
Nonmanufacturing.....	24	206.2	7	25.6	1	1.4	-	-	3	6.2
Mining, crude petroleum, and natural gas.....	7	136.5	2	3.4	1	1.4	-	-	1	2.0
Transportation.....	1	20.0	-	-	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	1	1.4	-	-	-	-	1	1.4
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	8	32.1	4	20.8	-	-	-	-	1	2.8
Construction.....	2	5.5	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-
Union role -- Continued										No reference to union role
	Grievance and arbitration		Accelerated grievance procedure		Arbitration only		Other ²		Agreements	Workers
	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers		
All industries.....	138	737.0	33	296.7	13	59.4	1	9.5	223	1,790.2
Manufacturing.....	137	735.6	33	296.7	10	41.4	1	9.5	206	1,609.6
Ordnance, accessories.....	-	-	-	-	-	-	-	-	1	4.2
Food, kindred products.....	9	34.1	2	13.7	-	-	-	-	23	62.0
Tobacco manufacturing.....	-	-	-	-	-	-	-	-	4	11.1
Textile mill products.....	6	20.6	2	2.8	-	-	-	-	4	12.4
Apparel.....	17	134.7	2	8.4	3	7.4	-	-	13	275.5
Lumber, wood products.....	1	2.2	-	-	-	-	-	-	3	5.2
Furniture, fixtures.....	3	5.2	-	-	-	-	-	-	5	7.2
Paper, allied products.....	3	4.4	-	-	-	-	-	-	5	8.3
Printing and publishing.....	1	1.0	-	-	-	-	-	-	2	2.5
Chemicals.....	3	5.9	-	-	-	-	-	-	8	20.0
Petroleum refining.....	-	-	-	-	-	-	-	-	1	4.5
Rubber and plastics.....	9	51.8	1	3.8	-	-	-	-	3	5.4
Leather products.....	6	13.8	-	-	5	13.5	-	-	3	5.7
Stone, clay, and glass.....	7	26.9	1	2.8	-	-	-	-	14	39.5
Primary metals.....	34	333.3	17	241.4	1	18.0	-	-	19	76.3
Fabricated metals.....	4	5.9	2	2.9	1	2.5	-	-	12	34.3
Machinery.....	16	38.4	-	-	-	-	-	-	28	76.9
Electrical machinery.....	9	27.4	5	14.9	-	-	-	-	24	209.3
Transportation equipment.....	4	15.4	1	6.0	-	-	1	9.5	22	735.4
Instruments.....	3	4.6	-	-	-	-	-	-	2	3.5
Miscellaneous manufacturing.....	2	9.8	-	-	-	-	-	-	5	8.2
Nonmanufacturing.....	1	1.4	-	-	3	18.0	-	-	17	180.5
Mining, crude petroleum, and natural gas.....	1	1.4	-	-	-	-	-	-	5	133.1
Transportation.....	-	-	-	-	-	-	-	-	1	20.0
Communication.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	-	-	-	-	-	-	-	-	5	10.6
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	-	-	-	-	3	18.0	-	-	4	11.3
Construction.....	-	-	-	-	-	-	-	-	2	5.5
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.

²Includes 1 agreement providing for grievance and arbitration, but allowing the union to strike if the employer did not agree to arbitrate the rates.

NOTE: Nonadditive.

Table 11. Role of incentive committee in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Committee role							
	Agreements	Workers	Total		Participates in rate setting		Acts as study group		Initiates grievances	
			Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,820.2	102	724.4	43	488.8	35	315.5	14	150.3
Manufacturing.....	418	2,674.0	98	718.4	42	486.8	33	312.9	14	150.3
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-	-	-
Food, kindred products.....	35	160.8	4	9.0	2	6.0	3	7.0	-	-
Tobacco manufacturing.....	4	11.1	-	-	-	-	-	-	-	-
Textile mill products.....	11	34.2	2	10.8	-	-	-	-	-	-
Apparel.....	43	444.0	23	203.8	17	183.5	2	7.0	-	-
Lumber, wood products.....	4	7.4	1	1.2	-	-	-	-	-	-
Furniture, fixtures.....	8	12.4	1	1.5	-	-	1	1.5	-	-
Paper, allied products.....	8	12.8	-	-	-	-	-	-	-	-
Printing and publishing.....	3	3.5	-	-	-	-	-	-	-	-
Chemicals.....	11	26.0	1	1.6	-	-	1	1.6	-	-
Petroleum refining.....	1	4.5	-	-	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	2	18.2	2	18.2	-	-	-	-
Leather products.....	16	44.0	2	8.2	1	7.0	-	-	-	-
Stone, clay, and glass.....	26	80.3	-	-	-	-	-	-	-	-
Primary metals.....	66	462.6	37	376.9	17	261.5	19	283.8	14	150.3
Fabricated metals.....	21	53.4	2	2.4	1	1.3	1	1.3	-	-
Machinery.....	48	128.1	4	6.4	-	-	4	6.4	-	-
Electrical machinery.....	53	309.8	15	64.2	-	-	-	-	-	-
Transportation equipment.....	31	770.1	3	6.0	1	1.3	2	4.3	-	-
Instruments.....	5	8.1	-	-	-	-	-	-	-	-
Miscellaneous manufacturing	7	18.0	1	8.0	1	8.0	-	-	-	-
Nonmanufacturing.....	24	206.2	4	6.0	1	2.0	2	2.6	-	-
Mining, crude petroleum, and natural gas.....	7	136.5	3	4.6	1	2.0	2	2.6	-	-
Transportation.....	1	20.0	-	-	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	1	1.4	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	8	32.1	-	-	-	-	-	-	-	-
Construction.....	2	5.5	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-
Committee role -- Continued										
							No reference to incentive committee			
			Resolves grievances		Assists in earnings calculations		Unable to determine			
			Agreements Workers		Agreements Workers		Agreements Workers		Agreements Workers	
All industries.....			53	430.6	2	7.8	6	24.5	340	2,155.7
Manufacturing.....			52	429.2	2	7.8	6	24.5	320	1,955.5
Ordnance, accessories.....			-	-	-	-	-	-	2	6.1
Food, kindred products.....			-	-	-	-	-	-	31	151.8
Tobacco manufacturing.....			-	-	-	-	-	-	4	11.1
Textile mill products.....			2	10.8	-	-	-	-	9	23.3
Apparel.....			11	74.7	2	7.8	-	-	20	240.1
Lumber, wood products.....			-	-	-	-	1	1.2	3	6.2
Furniture, fixtures.....			-	-	-	-	-	-	7	10.5
Paper, allied products.....			-	-	-	-	-	-	8	12.8
Printing and publishing.....			-	-	-	-	-	-	3	3.5
Chemicals.....			-	-	-	-	-	-	10	24.4
Petroleum refining.....			-	-	-	-	-	-	1	4.5
Rubber and plastics.....			-	-	-	-	-	-	13	58.4
Leather products.....			1	1.2	-	-	-	-	14	35.8
Stone, clay, and glass.....			-	-	-	-	-	-	26	80.3
Primary metals.....			23	290.2	-	-	2	6.6	29	85.7
Fabricated metals.....			-	-	-	-	1	1.2	19	51.0
Machinery.....			1	1.7	-	-	-	-	44	121.6
Electrical machinery.....			13	48.8	-	-	2	15.4	38	245.6
Transportation equipment.....			1	1.8	-	-	-	-	28	764.1
Instruments.....			-	-	-	-	-	-	5	8.1
Miscellaneous manufacturing			-	-	-	-	-	-	6	10.0
Nonmanufacturing.....			1	1.4	-	-	-	-	20	200.2
Mining, crude petroleum, and natural gas.....			-	-	-	-	-	-	4	131.9
Transportation.....			-	-	-	-	-	-	1	20.0
Communication.....			-	-	-	-	-	-	-	-
Utilities, electric and gas			-	-	-	-	-	-	-	-
Wholesale trade.....			-	-	-	-	-	-	-	-
Retail trade.....			1	1.4	-	-	-	-	5	10.6
Hotels and restaurants.....			-	-	-	-	-	-	-	-
Services.....			-	-	-	-	-	-	8	32.1
Construction.....			-	-	-	-	-	-	2	5.5
Miscellaneous nonmanufacturing.....			-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 12. Temporary incentive rates and conditions for permanent adoption in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Total with temporary incentive rate		Adoption of temporary rates							
	Agreements	Workers	Agreements	Workers	Total with reference to adoption of temporary rate		Adoption of rate dependent upon performance		Rate becomes permanent after specified period		Rate becomes permanent provided no union challenge	
					Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	144	777.6	59	481.3	48	445.7	10	27.0	8	25.6
Manufacturing.....	418	2,674.0	142	774.5	59	481.3	48	445.7	10	27.0	8	25.6
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-	-	-	-	-
Food, kindred products.....	35	160.8	2	8.7	-	-	-	-	-	-	-	-
Tobacco manufacturing.....	4	11.1	-	-	-	-	-	-	-	-	-	-
Textile mill products.....	11	34.2	5	15.0	1	8.6	1	8.6	-	-	-	-
Apparel.....	43	444.0	7	55.3	-	-	-	-	-	-	-	-
Lumber, wood products.....	4	7.4	1	2.2	-	-	-	-	-	-	-	-
Furniture, fixtures.....	8	12.4	2	3.0	1	1.5	1	1.5	-	-	-	-
Paper, allied products.....	8	12.8	1	1.7	-	-	-	-	-	-	-	-
Printing and publishing.....	3	3.5	-	-	-	-	-	-	-	-	-	-
Chemicals.....	11	26.0	2	7.7	-	-	-	-	-	-	-	-
Petroleum refining.....	1	4.5	-	-	-	-	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	8	65.5	4	24.4	2	18.4	2	4.1	1	3.2
Leather products.....	16	44.0	7	20.3	4	16.9	-	-	-	-	4	16.9
Stone, clay, and glass.....	26	80.3	6	20.9	-	-	-	-	-	-	-	-
Primary metals.....	66	462.6	42	396.6	29	358.4	31	365.8	-	-	-	-
Fabricated metals.....	21	53.4	7	14.0	-	-	-	-	-	-	-	-
Machinery.....	48	128.1	22	57.7	5	10.4	2	5.0	5	9.8	-	-
Electrical machinery.....	53	309.8	21	80.3	11	46.3	10	44.5	1	1.5	2	4.3
Transportation equipment.....	31	770.1	7	22.4	3	13.4	1	1.8	2	11.6	-	-
Instruments.....	5	8.1	2	3.1	1	1.3	-	-	-	-	1	1.3
Miscellaneous manufacturing.....	7	18.0	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing.....	24	206.2	2	3.0	-	-	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	7	136.5	-	-	-	-	-	-	-	-	-	-
Transportation ¹	1	20.0	-	-	-	-	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	-	-	-	-	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-	-	-
Services.....	8	32.1	2	3.0	-	-	-	-	-	-	-	-
Construction.....	2	5.5	-	-	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-	-	-

¹ Excludes railroads and airlines.
NOTE: Nonadditive.

Table 13. Transfers involving incentive workers in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Type of transfer									
	Agreements	Workers	Total		Temporary		Permanent		Both		Unable to determine	
			Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	179	850.9	115	620.4	15	38.5	46	183.4	3	8.5
Manufacturing.....	418	2,674.0	176	843.9	115	620.4	15	38.5	43	176.3	3	8.5
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-	-	-	-	-
Food, kindred products.....	35	160.8	9	28.6	6	18.4	1	6.0	2	4.2	-	-
Tobacco manufacturing.....	4	11.1	1	1.0	-	-	1	1.0	-	-	-	-
Textile mill products.....	11	34.2	4	6.8	3	5.1	-	-	1	1.6	-	-
Apparel.....	43	444.0	23	268.1	18	251.9	1	4.5	4	11.8	-	-
Lumber, wood products.....	4	7.4	-	-	-	-	-	-	-	-	-	-
Furniture, fixtures.....	8	12.4	5	8.7	4	7.7	1	1.0	-	-	-	-
Paper, allied products.....	8	12.8	2	3.3	1	1.7	-	-	1	1.6	-	-
Printing and publishing.....	3	3.5	-	-	-	-	-	-	-	-	-	-
Chemicals.....	11	26.0	3	5.9	-	-	2	3.9	1	2.0	-	-
Petroleum refining.....	1	4.5	-	-	-	-	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	13	58.4	9	51.4	1	1.3	3	5.7	-	-
Leather products.....	16	44.0	7	16.5	1	1.2	2	7.0	4	8.3	-	-
Stones, clay, and glass.....	26	80.3	5	9.1	4	7.1	1	2.0	-	-	-	-
Primary metals.....	66	462.6	16	98.3	10	87.9	1	1.8	4	7.1	1	1.5
Fabricated metals.....	21	53.4	8	15.6	6	10.5	-	-	2	5.0	-	-
Machinery.....	48	128.1	30	87.7	22	71.4	2	5.7	5	9.6	1	1.0
Electrical machinery.....	53	309.8	35	205.8	22	90.3	-	-	12	109.5	1	6.0
Transportation equipment.....	31	770.1	9	20.0	5	9.1	1	3.0	3	7.9	-	-
Instruments.....	5	8.1	4	6.6	3	4.8	-	-	1	1.8	-	-
Miscellaneous manufacturing.....	7	18.0	2	3.1	1	1.8	1	1.3	-	-	-	-
Nonmanufacturing.....	24	206.2	3	7.0	-	-	-	-	3	7.0	-	-
Mining, crude petroleum, and natural gas.....	7	136.5	-	-	-	-	-	-	-	-	-	-
Transportation.....	1	20.0	-	-	-	-	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	1	4.0	-	-	-	-	1	4.0	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-	-	-
Services.....	8	32.1	2	3.0	-	-	-	-	2	3.0	-	-
Construction.....	2	5.5	-	-	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Because of rounding, sums of individual items may not equal totals.

Table 14. New employee incentive rate in major collective bargaining agreements, 1977

(Workers in thousands)

Industry	Agreements	Workers
Total with incentive provisions	442	2,880.2
Total with new employee incentive rate.....	80	271.8
New employee progression.....	30	108.0
Incentive classification base rate.....	24	61.4
Actual incentive earnings.....	19	100.6
Flat hiring rate.....	15	62.4
No reference to new employee rate.....	362	2,608.3

NOTE: Nonadditive.

Table 15. Incentive earnings safeguards in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with incentive provisions		Conditions for earnings guarantees							
	Agreements	Workers	Total		Downtime		Faulty material		Special work assignment	
			Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	442	2,880.2	221	1,093.9	136	607.6	27	168.0	121	352.0
Manufacturing.....	418	2,674.0	213	1,073.6	131	594.8	27	168.0	121	352.0
Ordnance, accessories.....	2	6.1	-	-	-	-	-	-	-	-
Food, kindred products.....	35	160.8	5	9.2	3	5.3	-	-	2	3.9
Tobacco manufacturing.....	4	11.1	1	1.0	1	1.0	-	-	-	-
Textile mill products.....	11	34.2	10	25.5	8	19.3	-	-	6	13.8
Apparel.....	43	444.0	13	199.1	12	197.3	-	-	2	4.3
Lumber, wood products.....	4	7.4	1	2.2	-	-	-	-	1	2.2
Furniture, fixtures.....	8	12.4	5	7.5	3	4.9	1	2.4	3	4.5
Paper, allied products.....	8	12.8	2	2.9	2	2.9	-	-	1	-
Printing and publishing.....	3	3.5	1	1.0	1	1.0	1	1.0	1	1.0
Chemicals.....	11	26.0	5	13.9	2	8.0	-	-	1	2.0
Petroleum refining.....	1	4.5	-	-	-	-	-	-	-	-
Rubber and plastics.....	15	76.6	15	76.6	11	58.3	3	19.7	12	71.6
Leather products.....	16	44.0	8	25.2	7	19.2	-	-	4	13.0
Stone, clay, and glass.....	26	80.3	9	25.6	1	3.0	-	-	7	20.6
Primary metals.....	66	462.6	29	295.8	7	13.8	1	1.5	5	11.3
Fabricated metals.....	21	53.4	14	40.1	6	10.7	3	6.8	10	16.2
Machinery.....	48	128.1	37	90.8	28	75.8	10	39.3	28	76.1
Electrical machinery.....	53	309.8	40	222.0	23	145.3	6	92.8	28	89.6
Transportation equipment.....	31	770.1	11	24.0	10	19.4	1	3.0	7	15.1
Instruments.....	5	8.1	4	6.8	4	6.8	-	-	3	5.3
Miscellaneous manufacturing.....	7	18.0	3	4.0	2	2.7	1	1.4	1	1.3
Nonmanufacturing.....	24	206.2	8	20.3	5	12.9	-	-	-	-
Mining, crude petroleum, and natural gas.....	7	136.5	1	2.0	1	2.0	-	-	-	-
Transportation.....	1	20.0	-	-	-	-	-	-	-	-
Communication.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	6	12.0	3	8.0	1	2.6	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	8	32.1	4	10.3	3	8.3	-	-	-	-
Construction.....	2	5.5	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

Industry	Conditions for earnings guarantees -- Continued						No reference to earnings safeguards	
	Nonwork assignment		Break-in time		Red-circle rate		Agreements	Workers
	Agreements	Workers	Agreements	Workers	Agreements	Workers		
All industries.....	48	141.9	52	172.8	55	421.6	221	1,786.3
Manufacturing.....	47	140.5	51	170.8	53	416.2	205	1,600.4
Ordnance, accessories.....	-	-	-	-	-	-	2	6.1
Food, kindred products.....	-	-	-	-	-	-	30	151.6
Tobacco manufacturing.....	-	-	1	1.0	-	-	3	10.1
Textile mill products.....	-	-	1	2.2	1	1.1	1	8.6
Apparel.....	-	-	1	2.6	-	-	30	244.9
Lumber, wood products.....	-	-	-	-	-	-	3	5.2
Furniture, fixtures.....	1	2.4	1	2.4	1	1.5	3	4.9
Paper, allied products.....	1	1.4	-	-	-	-	6	9.8
Printing and publishing.....	-	-	-	-	-	-	2	2.5
Chemicals.....	2	8.7	1	1.4	1	2.5	6	12.0
Petroleum refining.....	-	-	-	-	-	-	1	4.5
Rubber and plastics.....	4	20.9	6	28.1	-	-	-	-
Leather products.....	-	-	2	5.0	-	-	8	18.8
Stone, clay, and glass.....	-	-	-	-	1	2.0	17	54.8
Primary metals.....	3	8.0	1	5.3	20	279.3	37	166.2
Fabricated metals.....	5	8.0	3	8.1	2	18.3	7	13.3
Machinery.....	10	19.5	12	41.5	8	34.1	11	37.2
Electrical machinery.....	18	67.3	16	60.3	13	76.0	13	87.8
Transportation equipment.....	-	-	3	7.9	-	-	20	746.1
Instruments.....	1	1.5	2	3.3	-	-	1	1.3
Miscellaneous manufacturing.....	2	2.6	1	1.4	1	1.3	4	14.0
Nonmanufacturing.....	1	1.4	1	2.0	2	5.4	16	185.9
Mining, crude petroleum, and natural gas.....	-	-	-	-	-	-	6	134.5
Transportation.....	-	-	-	-	-	-	1	20.0
Communication.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	1	1.4	-	-	2	5.4	3	4.0
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	-	-	1	2.0	-	-	4	21.8
Construction.....	-	-	-	-	-	-	2	5.5
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-

¹ Excludes railroads and airlines.
NOTE: Nonadditive.

Table 16. Production-standard provisions in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	All agreements		Total with production standards		General statement of policy		Union-management cooperation		Both	
	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	1,438	6,982.9	333	1,857.3	95	989.5	6	14.7	5	8.3
Manufacturing.....	749	3,679.1	321	1,832.5	92	980.7	5	13.6	4	7.1
Ordnance, accessories.....	16	32.3	2	3.7	-	-	-	-	-	-
Food, kindred products.....	105	293.5	26	74.6	1	3.3	2	6.7	-	-
Tobacco manufacturing.....	8	26.4	1	4.1	-	-	-	-	-	-
Textile mill products.....	13	38.8	8	22.0	2	3.0	1	2.2	1	1.3
Apparel.....	46	452.5	12	34.3	2	6.6	-	-	-	-
Lumber, wood products.....	5	10.9	1	2.2	-	-	-	-	-	-
Furniture, fixtures.....	19	30.0	7	9.5	3	3.5	-	-	1	2.4
Paper, allied products.....	49	96.6	8	13.1	5	7.5	-	-	-	-
Printing and publishing....	23	47.2	2	2.3	-	-	-	-	-	-
Chemicals.....	42	100.6	10	24.6	1	1.2	-	-	-	-
Petroleum refining.....	12	24.0	1	1.0	-	-	-	-	-	-
Rubber and plastics.....	17	82.3	14	73.9	2	18.8	-	-	-	-
Leather products.....	17	48.0	7	9.3	-	-	-	-	-	-
Stone, clay, and glass.....	27	82.1	13	54.0	4	12.0	-	-	-	-
Primary metals.....	76	477.8	46	344.4	10	37.9	-	-	1	1.1
Fabricated metals.....	27	80.1	14	24.1	6	6.0	-	-	-	-
Machinery.....	74	257.1	55	129.9	19	37.3	1	3.0	-	-
Electrical machinery.....	83	408.7	47	201.1	14	93.1	1	1.8	1	2.3
Transportation equipment...	79	1,052.3	33	783.8	23	742.6	-	-	-	-
Instruments.....	7	16.9	7	16.9	2	7.7	-	-	-	-
Miscellaneous manufacturing	8	21.1	2	3.4	-	-	-	-	-	-
Nonmanufacturing.....	689	3,303.8	12	24.8	3	8.8	1	1.0	1	1.2
Mining, crude petroleum, and natural gas.....	11	148.6	2	3.4	-	-	-	-	-	-
Transportation ¹	65	572.8	-	-	-	-	-	-	-	-
Communications.....	65	495.7	-	-	-	-	-	-	-	-
Utilities, electric and gas	47	134.1	-	-	-	-	-	-	-	-
Wholesale trade.....	12	22.3	-	-	-	-	-	-	-	-
Retail trade.....	87	290.0	5	10.6	1	4.0	-	-	1	1.2
Hotels and restaurants....	42	187.9	-	-	-	-	-	-	-	-
Services.....	68	357.2	5	10.8	2	4.8	1	1.0	-	-
Construction.....	290	1,082.9	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	2	2.5	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 17. Employer rights relating to production standards in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with production standards		Employer right to --							
	Agreements	Workers	Install production standards		Choose method of study to determine production standards		Change production standards under certain conditions			
			Agreements	Workers	Agreements	Workers	Specified		Implied	
							Agreements	Workers	Agreements	Workers
All industries.....	333	1,857.3	57	248.6	8	11.8	144	939.3	36	358.5
Manufacturing.....	321	1,832.5	56	245.8	8	11.8	139	928.5	35	356.5
Ordnance, accessories.....	2	3.7	-	-	-	-	1	1.9	-	-
Food, kindred products.....	26	74.6	4	14.8	2	4.3	13	42.7	3	11.8
Tobacco manufacturing.....	1	4.1	1	4.1	-	-	-	-	-	-
Textile mill products.....	8	22.0	3	5.2	-	-	2	3.3	2	2.3
Apparel.....	12	34.3	-	-	-	-	1	2.1	-	-
Lumber, wood products.....	1	2.2	-	-	-	-	-	-	-	-
Furniture, fixtures.....	7	9.5	2	3.4	-	-	4	5.1	1	1.0
Paper, allied products.....	8	13.1	2	2.8	1	1.4	6	9.1	-	-
Printing and publishing....	2	2.3	-	-	-	-	-	-	-	-
Chemicals.....	10	24.6	-	-	-	-	4	6.0	1	6.7
Petroleum refining.....	1	1.0	-	-	-	-	-	-	-	-
Rubber and plastics.....	14	73.9	3	3.6	-	-	9	27.4	-	-
Leather products.....	7	9.3	1	2.0	-	-	1	1.3	2	3.0
Stone, clay, and glass.....	18	54.0	1	2.0	-	-	6	12.3	3	13.8
Primary metals.....	46	344.4	8	137.9	1	1.2	13	169.5	4	5.3
Fabricated metals.....	14	24.1	4	6.4	3	3.8	9	15.1	1	1.2
Machinery.....	55	129.9	12	22.2	1	1.1	30	76.2	8	20.5
Electrical machinery.....	47	201.1	5	18.8	-	-	25	92.6	3	13.3
Transportation equipment....	33	783.8	9	20.4	-	-	13	460.6	6	275.5
Instruments.....	7	16.9	1	2.0	-	-	1	1.5	1	2.0
Miscellaneous manufacturing	2	3.4	-	-	-	-	1	1.6	-	-
Nonmanufacturing.....	12	24.8	1	2.8	-	-	5	10.8	1	2.0
Mining, crude petroleum, and natural gas.....	2	3.4	-	-	-	-	1	1.4	-	-
Transportation.....	-	-	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	5	10.6	-	-	-	-	4	9.4	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	5	10.8	1	2.8	-	-	-	-	1	2.0
Construction.....	-	-	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 18. Union and employee rights relating to production standards in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with production standards		Union right to --				Employee right to --			
	Agreements	Workers	Receive production standards information		Question production standards		Receive production standards information		Question production standards	
			Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	333	1,857.3	142	1,073.1	45	157.5	97	929.0	54	578.9
Manufacturing.....	321	1,832.5	134	1,055.7	43	152.9	95	923.6	54	578.9
Ordnance, accessories.....	2	3.7	-	-	-	-	-	-	-	-
Food, kindred products.....	26	74.6	16	52.5	3	10.9	5	7.8	5	11.9
Tobacco manufacturing.....	1	4.1	-	-	-	-	-	-	-	-
Textile mill products.....	8	22.0	6	9.0	4	5.6	3	11.1	1	1.4
Apparel.....	12	34.3	1	2.1	2	4.7	-	-	-	-
Lumber, wood products.....	1	2.2	-	-	-	-	-	-	-	-
Furniture, fixtures.....	7	9.5	3	4.9	-	-	1	1.1	2	2.6
Paper, allied products.....	8	13.1	3	4.6	4	6.1	1	1.5	3	4.3
Printing and publishing.....	2	2.3	-	-	-	-	-	-	-	-
Chemicals.....	10	24.6	4	7.0	2	4.3	1	1.0	-	-
Petroleum refining.....	1	1.0	-	-	-	-	-	-	-	-
Rubber and plastics.....	14	73.9	11	53.9	2	4.2	9	15.7	1	1.1
Leather products.....	7	9.3	2	3.0	1	1.0	1	2.0	1	1.0
Stone, clay, and glass.....	18	54.0	2	4.4	2	4.4	3	5.0	2	3.5
Primary metals.....	46	344.4	11	18.7	3	3.5	5	8.8	1	1.2
Fabricated metals.....	14	24.1	8	12.8	1	1.1	7	11.4	2	4.3
Machinery.....	55	129.9	31	84.9	7	13.6	28	78.4	16	28.1
Electrical machinery.....	47	201.1	19	71.9	8	75.6	17	59.6	10	78.5
Transportation equipment...	33	783.8	14	720.6	3	15.2	12	716.5	7	434.1
Instruments.....	7	16.9	2	3.5	1	2.0	1	2.0	2	5.1
Miscellaneous manufacturing	2	3.4	1	1.6	-	-	1	1.6	1	1.6
Nonmanufacturing.....	12	24.8	8	17.4	2	4.6	2	5.4	-	-
Mining, crude petroleum, and natural gas.....	2	3.4	-	-	-	-	-	-	-	-
Transportation.....	-	-	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	5	10.6	5	10.6	1	1.8	1	2.6	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	5	10.8	3	6.8	1	2.8	1	2.8	-	-
Construction.....	-	-	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

¹ Excludes railroads and airlines.
NOTE: Nonadditive.

Table 19. Selected provisions relating to temporary production standards in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with production standards		Time limit on temporary standards						Retroactive compensation for work done under temporary or appealed production standards	
	Agreements	Workers	Openended		Fixed duration		Provision for extension of time limit		Agreements	Workers
			Agreements	Workers	Agreements	Workers	Agreements	Workers		
All industries.....	333	1,857.3	15	30.1	35	104.7	7	34.0	81	215.5
Manufacturing.....	321	1,832.5	14	27.3	35	104.7	7	34.0	81	215.5
Ordnance, accessories.....	2	3.7	1	1.9	-	-	-	-	-	-
Food, kindred products.....	26	74.6	1	6.8	1	3.3	1	3.3	8	19.4
Tobacco manufacturing.....	1	4.1	-	-	-	-	-	-	-	-
Textile mill products.....	8	22.0	-	-	3	4.5	-	-	3	4.5
Apparel.....	12	34.3	-	-	1	2.6	-	-	1	1.5
Lumber, wood products.....	1	2.2	-	-	-	-	-	-	-	-
Furniture, fixtures.....	7	9.5	3	3.5	-	-	-	-	4	5.1
Paper, allied products.....	8	13.1	-	-	2	3.0	1	1.4	2	3.1
Printing and publishing.....	2	2.3	-	-	-	-	-	-	-	-
Chemicals.....	10	24.6	-	-	1	1.0	1	1.0	4	6.8
Petroleum refining.....	1	1.0	-	-	-	-	-	-	-	-
Rubber and plastics.....	14	73.9	-	-	3	3.8	-	-	5	6.3
Leather products.....	7	9.3	-	-	1	1.0	-	-	2	3.3
Stone, clay, and glass.....	13	54.0	-	-	-	-	-	-	3	15.9
Primary metals.....	46	344.4	4	7.4	2	2.4	-	-	7	30.6
Fabricated metals.....	14	24.1	-	-	2	2.8	-	-	6	10.3
Machinery.....	55	129.9	5	8.5	8	36.3	2	23.6	18	61.5
Electrical machinery.....	47	201.1	-	-	6	34.8	2	4.7	8	21.9
Transportation equipment.....	33	783.8	-	-	4	7.1	-	-	7	18.8
Instruments.....	7	16.9	-	-	1	2.0	-	-	3	6.6
Miscellaneous manufacturing	2	3.4	-	-	-	-	-	-	-	-
Nonmanufacturing.....	12	24.8	1	2.8	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	2	3.4	-	-	-	-	-	-	-	-
Transportation ¹	-	-	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	5	10.6	-	-	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	5	10.8	1	2.8	-	-	-	-	-	-
Construction.....	-	-	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 20. Appeal procedure relating to production standards in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with production standards		Appeal procedure					
	Agreements	Workers	Total		Grievance		Grievance and arbitration	
			Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	333	1,857.3	165	781.9	29	103.9	80	252.4
Manufacturing.....	321	1,832.5	159	768.6	29	103.9	78	247.0
Ordnance, accessories.....	2	3.7	1	1.8	1	1.8	-	-
Food, kindred products.....	26	74.6	13	36.5	1	2.0	6	19.5
Tobacco manufacturing.....	1	4.1	-	-	-	-	-	-
Textile mill products.....	8	22.0	4	5.6	-	-	2	3.1
Apparel.....	12	34.3	2	4.7	-	-	2	4.7
Lumber, wood products.....	1	2.2	1	2.2	-	-	1	2.2
Furniture, fixtures.....	7	9.5	4	4.6	2	2.0	-	-
Paper, allied products.....	8	13.1	5	7.5	-	-	3	4.4
Printing and publishing.....	2	2.3	-	-	-	-	-	-
Chemicals.....	10	24.6	4	6.8	-	-	1	2.5
Petroleum refining.....	1	1.0	-	-	-	-	-	-
Rubber and plastics.....	14	73.9	7	22.4	1	1.6	5	19.5
Leather products.....	3	9.3	3	4.3	-	-	2	3.3
Stone, clay, and glass.....	18	54.0	9	27.3	2	2.6	6	22.6
Primary metals.....	46	344.4	11	61.9	3	20.2	6	17.3
Fabricated metals.....	14	24.1	10	17.3	1	3.3	8	12.3
Machinery.....	55	129.9	37	100.5	9	14.8	18	62.3
Electrical machinery.....	47	201.1	23	136.1	6	49.8	11	50.0
Transportation equipment.....	33	783.8	21	320.5	2	2.1	5	20.1
Instruments.....	7	16.9	3	6.6	1	3.1	1	1.5
Miscellaneous manufacturing.....	2	3.4	1	1.6	-	-	1	1.6
Nonmanufacturing.....	12	24.8	6	13.3	-	-	2	5.4
Mining, crude petroleum, and natural gas.....	2	3.4	-	-	-	-	-	-
Transportation ¹	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	5	10.6	4	9.4	-	-	1	2.6
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	5	10.8	2	3.8	-	-	1	2.8
Construction.....	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-

Appeal procedure -- Continued								
Arbitration		Accelerated grievance and arbitration procedure		Accelerated grievance procedure		Special appeal procedure		
Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers	
All industries.....	3	4.2	15	51.8	5	9.3	33	360.3
Manufacturing.....	2	3.1	15	51.8	5	9.3	30	353.5
Ordnance, accessories.....	-	-	-	-	-	-	-	-
Food, kindred products.....	-	-	2	8.1	-	-	4	6.8
Tobacco manufacturing.....	-	-	-	-	-	-	-	-
Textile mill products.....	1	1.4	-	-	1	1.1	-	-
Apparel.....	-	-	-	-	-	-	-	-
Lumber, wood products.....	-	-	-	-	-	-	-	-
Furniture, fixtures.....	-	-	2	2.6	-	-	-	-
Paper, allied products.....	-	-	2	3.1	-	-	-	-
Printing and publishing.....	-	-	-	-	-	-	-	-
Chemicals.....	1	1.8	-	-	-	-	2	2.5
Petroleum refining.....	-	-	-	-	-	-	-	-
Rubber and plastics.....	-	-	-	-	-	-	1	1.3
Leather products.....	-	-	-	-	-	-	1	1.0
Stone, clay, and glass.....	-	-	-	-	-	-	1	2.0
Primary metals.....	-	-	2	24.5	-	-	-	-
Fabricated metals.....	-	-	1	1.6	-	-	-	-
Machinery.....	-	-	2	4.2	4	8.3	4	10.9
Electrical machinery.....	-	-	3	6.2	-	-	3	30.1
Transportation equipment.....	-	-	1	1.4	-	-	13	296.8
Instruments.....	-	-	-	-	-	-	1	2.0
Miscellaneous manufacturing.....	-	-	-	-	-	-	-	-
Nonmanufacturing.....	1	1.0	-	-	-	-	3	6.8
Mining, crude petroleum, and natural gas.....	-	-	-	-	-	-	-	-
Transportation ¹	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	-	-	-	-	-	-	3	6.8
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	1	1.0	-	-	-	-	-	-
Construction.....	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 21. Limitation on appeal of production standards in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Type of limitation on appeal											
	Total		Must appeal within a specified period of time		May not appeal during trial period or duration of temporary standards		Production standards arbitrable, but arbitrators jurisdiction limited		Production standards not arbitrable		May be appealed by affected employee only	
	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	72	244.1	29	77.3	24	71.8	17	91.3	11	23.3	6	13.9
Manufacturing.....	71	243.1	28	76.3	24	71.8	17	91.3	11	23.3	6	13.9
Ordnance, accessories.....	1	1.8	-	-	-	-	-	-	1	1.8	-	-
Food, kindred products.....	11	31.5	3	9.5	1	1.2	6	18.3	3	5.1	1	1.5
Tobacco manufacturing.....	-	-	-	-	-	-	-	-	-	-	-	-
Textile mill products.....	1	1.9	-	-	1	1.9	-	-	-	-	-	-
Apparel.....	1	2.1	1	2.1	-	-	-	-	-	-	-	-
Lumber, wood products.....	-	-	-	-	-	-	-	-	-	-	-	-
Furniture, fixtures.....	2	2.1	-	-	1	1.1	-	-	1	1.0	-	-
Paper, allied products.....	1	1.6	-	1.6	-	-	-	-	-	-	-	-
Printing and publishing.....	-	-	-	-	-	-	-	-	-	-	-	-
Chemicals.....	3	5.0	1	1.3	-	-	1	2.5	1	1.2	-	-
Petroleum refining.....	-	-	-	-	-	-	-	-	-	-	-	-
Rubber and plastics.....	2	16.2	1	1.2	1	15.0	-	-	-	-	-	-
Leather products.....	1	1.3	-	-	1	1.3	-	-	-	-	-	-
Stone, clay, and glass.....	5	16.8	1	2.0	-	-	4	14.8	-	-	-	-
Primary metals.....	5	34.7	4	24.2	1	1.2	1	10.5	-	-	-	-
Fabricated metals.....	4	5.1	2	2.3	1	1.6	-	-	-	-	1	1.2
Machinery.....	15	35.2	5	11.7	8	20.2	1	2.5	1	2.1	1	1.4
Electrical machinery.....	11	65.4	5	12.0	7	23.4	1	33.0	3	9.0	1	2.6
Transportation equipment.....	7	20.8	3	6.7	2	4.9	3	9.8	1	3.0	2	7.2
Instruments.....	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous manufacturing.....	1	1.6	1	1.6	-	-	-	-	-	-	-	-
Nonmanufacturing.....	1	1.0	1	1.0	-	-	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	-	-	-	-	-	-	-	-	-	-	-	-
Transportation.....	-	-	-	-	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-	-	-
Retail trade.....	1	1.0	1	1.0	-	-	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-	-	-
Services.....	-	-	-	-	-	-	-	-	-	-	-	-
Construction.....	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.

NOTE: Nonadditive.

Table 22. Production-standard or time-study allowances for abnormal working conditions in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Abnormal condition							
	Total		Delay		Fatigue		Personal	
	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	115	601.7	92	373.5	102	561.9	93	432.3
Manufacturing.....	115	601.7	92	373.5	102	561.9	93	432.3
Ordnance, accessories.....	-	-	-	-	-	-	-	-
Food, kindred products.....	10	27.8	10	27.8	10	27.8	5	9.0
Tobacco manufacturing.....	-	-	-	-	-	-	-	-
Textile mill products.....	8	22.0	5	10.6	8	22.0	7	20.9
Apparel.....	2	4.7	2	4.7	2	4.7	-	-
Lumber, wood products.....	-	-	-	-	-	-	-	-
Furniture, fixtures.....	2	3.4	2	3.4	2	3.4	2	3.4
Paper, allied products.....	2	2.8	2	2.8	2	2.8	2	2.8
Printing and publishing.....	-	-	-	-	-	-	-	-
Chemicals.....	2	7.9	-	-	1	1.2	2	7.9
Petroleum refining.....	-	-	-	-	-	-	-	-
Rubber and plastics.....	7	38.3	6	37.3	7	38.3	7	38.3
Leather products.....	3	4.3	2	3.0	2	3.0	2	3.3
Stone, clay, and glass.....	-	-	-	-	-	-	-	-
Primary metals.....	8	33.0	6	10.9	7	31.9	7	29.5
Fabricated metals.....	7	12.3	7	12.3	7	12.3	6	10.7
Machinery.....	34	96.3	26	78.9	29	85.4	31	89.1
Electrical machinery.....	15	43.9	11	36.9	13	34.8	13	40.8
Transportation equipment.....	14	302.8	12	142.8	11	292.1	8	174.5
Instruments.....	1	2.0	1	2.0	1	2.0	1	2.0
Miscellaneous manufacturing.....	-	-	-	-	-	-	-	-
Nonmanufacturing.....	-	-	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	-	-	-	-	-	-	-	-
Transportation.....	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	-	-	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	-	-	-	-	-	-	-	-
Construction.....	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 23. Discipline or transfer for failure to meet production standards in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Discipline						Prohibition of discipline or transfer during temporary standards or appeal	
	Total		General discipline		Transfer unilaterally imposed by management		Agreements	Workers
	Agreements	Workers	Agreements	Workers	Agreements	Workers		
All industries.....	37	378.8	32	363.0	10	60.8	5	168.4
Manufacturing.....	37	378.8	32	363.0	10	60.8	5	168.4
Ordnance, accessories.....	-	-	-	-	-	-	-	-
Food, kindred products.....	4	9.0	4	9.0	-	-	2	8.1
Tobacco manufacturing.....	1	4.1	1	4.1	-	-	-	-
Textile mill products.....	1	1.1	1	1.1	-	-	-	-
Apparel.....	-	-	-	-	-	-	-	-
Lumber, wood products.....	-	-	-	-	-	-	-	-
Furniture, fixtures.....	1	1.5	1	1.5	-	-	-	-
Paper, allied products.....	-	-	-	-	-	-	-	-
Printing and publishing.....	-	-	-	-	-	-	-	-
Chemicals.....	-	-	-	-	-	-	-	-
Petroleum refining.....	-	-	-	-	-	-	-	-
Rubber and plastics.....	-	-	-	-	-	-	-	-
Leather products.....	-	-	-	-	-	-	-	-
Stone, clay, and glass.....	1	3.0	1	3.0	-	-	-	-
Primary metals.....	1	1.1	1	1.1	-	-	-	-
Fabricated metals.....	3	4.5	2	3.5	1	1.0	-	-
Machinery.....	10	22.3	8	16.7	2	5.6	-	-
Electrical machinery.....	9	58.1	7	49.1	6	51.0	2	4.1
Transportation equipment.....	5	268.3	5	268.3	1	3.1	1	156.2
Instruments.....	1	5.7	1	5.7	-	-	-	-
Miscellaneous manufacturing.....	-	-	-	-	-	-	-	-
Nonmanufacturing.....	-	-	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	-	-	-	-	-	-	-	-
Transportation.....	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	-	-	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	-	-	-	-	-	-	-	-
Construction.....	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-

¹ Excludes railroads and airlines.
NOTE: Nonadditive.

Table 24. Method used to establish production standards and/or incentives in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total referring to incentives or production standards		Method							
	Agreements	Workers	Total		Time study		Other method		Unable to determine	
			Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	496	3,025.3	263	1,476.1	246	1,272.4	67	508.5	8	26.1
Manufacturing.....	470	2,816.3	258	1,465.3	242	1,264.2	67	508.5	7	23.5
Ordnance, accessories.....	3	7.9	-	-	-	-	-	-	-	-
Food, kindred products.....	37	163.8	18	45.9	17	44.6	3	7.2	1	1.3
Tobacco manufacturing.....	4	11.1	-	-	-	-	-	-	-	-
Textile mill products.....	11	34.2	8	22.3	8	22.3	-	-	-	-
Apparel.....	43	444.0	5	12.1	4	9.1	1	3.0	-	-
Lumber, wood products.....	4	7.4	1	2.2	-	-	-	-	1	2.2
Furniture, fixtures.....	9	13.4	5	7.0	5	7.0	1	2.4	-	-
Paper, allied products.....	10	15.4	4	5.8	4	5.8	-	-	-	-
Printing and publishing....	5	6.3	1	1.5	1	1.5	-	-	-	-
Chemicals.....	14	31.1	10	25.8	9	20.5	1	5.3	-	-
Petroleum refining.....	2	5.5	-	-	-	-	-	-	-	-
Rubber and plastics.....	16	77.8	16	77.8	16	77.8	-	-	-	-
Leather products.....	16	44.0	8	12.9	8	12.9	1	1.0	-	-
Stone, clay, and glass.....	27	82.3	11	32.8	8	25.7	2	3.0	2	6.1
Primary metals.....	69	476.0	21	46.9	20	43.1	5	10.1	-	-
Fabricated metals.....	21	53.4	13	25.3	13	25.3	4	6.3	-	-
Machinery.....	57	143.5	48	121.0	46	116.7	17	64.3	-	-
Electrical machinery.....	66	349.0	52	241.9	50	237.3	25	138.0	1	1.8
Transportation equipment...	42	815.0	28	764.4	26	598.0	5	264.6	1	10.2
Instruments.....	7	16.9	7	16.9	6	15.1	1	2.0	1	1.8
Miscellaneous manufacturing	7	18.0	2	2.6	1	1.3	1	1.3	-	-
Nonmanufacturing.....	26	209.0	5	10.8	4	8.2	-	-	1	2.6
Mining, crude petroleum, and natural gas.....	7	136.5	1	1.4	1	1.4	-	-	-	-
Transportation.....	1	20.0	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	8	14.8	4	9.4	3	6.8	-	-	1	2.6
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	8	32.1	-	-	-	-	-	-	-	-
Construction.....	2	5.5	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 25. Party or parties conducting time study in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with time-study provision		Time study conducted by --							
	Agreements	Workers	Company		Union		Company and union representative or joint committee		Outside consultant	
			Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	246	1,272.4	225	1,192.4	36	95.6	26	513.4	12	58.8
Manufacturing.....	242	1,264.2	221	1,184.2	36	95.6	26	513.4	12	58.8
Ordnance, accessories.....	-	-	-	-	-	-	-	-	-	-
Food, kindred products.....	17	44.6	17	44.6	2	7.6	-	-	1	2.1
Tobacco manufacturing.....	-	-	-	-	-	-	-	-	-	-
Textile mill products.....	8	22.3	8	22.3	-	-	-	-	1	1.1
Apparel.....	4	9.1	4	9.1	1	2.1	-	-	-	-
Lumber, wood products.....	-	-	-	-	-	-	-	-	-	-
Furniture, fixtures.....	5	7.0	5	7.0	-	-	-	-	-	-
Paper, allied products.....	4	5.8	4	5.8	-	-	1	1.5	1	1.7
Printing and publishing.....	1	1.5	1	1.5	1	1.5	-	-	-	-
Chemicals.....	9	20.5	8	19.2	2	3.3	-	-	1	1.3
Petroleum refining.....	-	-	-	-	-	-	-	-	-	-
Rubber and plastics.....	16	77.8	13	37.8	7	12.5	4	37.0	3	40.0
Leather products.....	8	12.9	6	10.8	2	3.2	2	2.0	-	-
Stone, clay, and glass.....	8	25.7	7	20.2	1	8.4	1	5.5	-	-
Primary metals.....	20	43.1	18	40.3	5	10.0	3	11.6	-	-
Fabricated metals.....	13	25.3	12	24.1	-	-	1	1.1	-	-
Machinery.....	46	116.7	43	109.7	4	7.8	5	9.6	1	1.3
Electrical machinery.....	50	237.3	47	225.2	3	10.4	2	6.1	1	2.5
Transportation equipment.....	26	598.0	23	592.6	6	24.1	6	437.5	2	5.6
Instruments.....	6	15.1	4	12.3	2	4.6	1	1.3	1	3.1
Miscellaneous manufacturing	1	1.3	1	1.3	-	-	-	-	-	-
Nonmanufacturing.....	4	8.2	4	8.2	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	1	1.4	1	1.4	-	-	-	-	-	-
Transportation.....	-	-	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	3	6.8	3	6.8	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	-	-	-	-	-	-	-	-	-	-
Construction.....	-	-	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 26. Time-study information and union rights in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with time-study provision		Union provided with or has access to time-study data		Union advised of intent to perform time study		Union advised of results of study		Union rights in regard to time study	
	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	246	1,272.4	78	287.9	45	124.8	18	65.0	74	286.4
Manufacturing.....	242	1,264.2	77	286.9	45	124.8	18	65.0	74	286.4
Ordnance, accessories.....	-	-	-	-	-	-	-	-	-	-
Food, kindred products.....	17	44.6	2	8.0	4	15.4	3	6.4	5	14.8
Tobacco manufacturing.....	-	-	-	-	-	-	-	-	-	-
Textile mill products.....	8	22.3	2	3.3	-	-	-	-	1	1.1
Apparel.....	4	9.1	1	3.1	1	2.1	-	-	1	2.1
Lumber, wood products.....	-	-	-	-	-	-	-	-	-	-
Furniture, fixtures.....	5	7.0	2	2.1	-	-	1	2.4	-	-
Paper, allied products.....	4	5.8	1	1.7	1	1.4	1	1.4	3	4.6
Printing and publishing.....	1	1.5	-	-	1	1.5	-	-	1	1.5
Chemicals.....	9	20.5	4	11.6	1	1.2	-	-	6	16.1
Petroleum refining.....	-	-	-	-	-	-	-	-	-	-
Rubber and plastics.....	16	77.8	7	62.3	6	10.5	2	18.3	11	69.7
Leather products.....	8	12.9	1	4.0	1	1.4	2	6.0	2	5.0
Stone, clay, and glass.....	8	25.7	2	12.0	-	-	1	5.5	3	15.4
Primary metals.....	20	43.1	7	17.1	4	5.6	1	8.9	4	12.8
Fabricated metals.....	13	25.3	4	7.4	2	3.4	2	3.4	4	8.4
Machinery.....	46	116.7	21	39.9	7	12.7	1	1.2	12	24.0
Electrical machinery.....	50	237.3	11	71.8	7	28.7	1	4.5	11	71.6
Transportation equipment.....	26	598.0	10	38.0	9	39.3	2	5.1	6	26.9
Instruments.....	6	15.1	2	4.6	1	1.5	1	2.0	4	12.1
Miscellaneous manufacturing.....	1	1.3	-	-	-	-	-	-	-	-
Nonmanufacturing.....	4	8.2	1	1.0	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	1	1.4	-	-	-	-	-	-	-	-
Transportation.....	-	-	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-	-	-
Retail trade.....	3	6.8	1	1.0	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-	-	-
Services.....	-	-	-	-	-	-	-	-	-	-
Construction.....	-	-	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Table 27. Selected employee-related time-study provisions in major collective bargaining agreements, by industry, 1977

(Workers in thousands)

Industry	Total with time study provision		Time study performed with average worker(s)		Employee to perform at normal pace during time study		Employee to cooperate with management during time study	
	Agreements	Workers	Agreements	Workers	Agreements	Workers	Agreements	Workers
All industries.....	246	1,272.4	27	58.6	11	25.1	10	20.3
Manufacturing.....	242	1,264.2	27	58.6	11	25.1	10	20.3
Ordnance, accessories.....	-	-	-	-	-	-	-	-
Food, kindred products.....	17	44.6	-	-	-	-	1	3.3
Tobacco manufacturing.....	-	-	-	-	-	-	-	-
Textile mill products.....	8	22.3	-	-	1	1.6	-	-
Apparel.....	4	9.1	1	3.1	-	-	-	-
Lumber, wood products.....	-	-	-	-	-	-	-	-
Furniture, fixtures.....	5	7.0	-	-	-	-	-	-
Paper, allied products.....	4	5.8	-	-	-	-	-	-
Printing and publishing.....	1	1.5	-	-	-	-	-	-
Chemicals.....	9	20.5	1	1.2	-	-	1	1.2
Petroleum refining.....	-	-	-	-	-	-	-	-
Rubber and plastics.....	16	77.8	1	1.0	-	-	-	-
Leather products.....	8	12.9	3	4.2	1	1.4	-	-
Stone, clay, and glass.....	8	25.7	-	-	-	-	-	-
Primary metals.....	20	43.1	2	3.3	1	1.0	-	-
Fabricated metals.....	13	25.3	3	6.2	2	2.9	-	-
Machinery.....	46	116.7	6	12.4	4	6.6	6	11.2
Electrical machinery.....	50	237.3	7	22.0	1	2.1	2	4.4
Transportation equipment.....	26	598.0	1	1.8	1	9.5	-	-
Instruments.....	6	15.1	1	2.0	-	-	-	-
Miscellaneous manufacturing.....	1	1.3	1	1.3	-	-	-	-
Nonmanufacturing.....	4	8.2	-	-	-	-	-	-
Mining, crude petroleum, and natural gas.....	1	1.4	-	-	-	-	-	-
Transportation.....	-	-	-	-	-	-	-	-
Communications.....	-	-	-	-	-	-	-	-
Utilities, electric and gas.....	-	-	-	-	-	-	-	-
Wholesale trade.....	-	-	-	-	-	-	-	-
Retail trade.....	3	6.8	-	-	-	-	-	-
Hotels and restaurants.....	-	-	-	-	-	-	-	-
Services.....	-	-	-	-	-	-	-	-
Construction.....	-	-	-	-	-	-	-	-
Miscellaneous nonmanufacturing.....	-	-	-	-	-	-	-	-

¹Excludes railroads and airlines.
NOTE: Nonadditive.

Appendix A. Selected Wage-Incentive, Production-Standard, and Time-Study Provisions

To illustrate how wage-incentive, production-standard, and time-study provisions may appear in an agreement, sections of several agreements are reproduced in their entirety. Intervening irrelevant clauses have been deleted.

Agreement between—

Employer: ITT Gwaltney, Smithfield, Va.
Union: Teamsters
Expiration date: January 1979

ARTICLE IX INCENTIVE PLAN

(a) The Employer has in effect an Incentive Plan for employees based upon productivity and competitive requirements of the Employer's business which it agrees to continue during the term of this Agreement so long as it is deemed practical.

(b) The parties agree that the Plan in its entirety shall be determined and administered solely by the Employer and the Employer reserves the sole and complete right to determine whether this Plan shall be continued, amended, modified or terminated as to any department or group of employees at any time during the term of this Agreement and such determination shall in no way be the subject matter of negotiations, grievances or in any way construed as a negotiable part of this Agreement.

(c) The Employer agrees that the Plan, along with any changes or amendments shall be made known to the employees and Union representatives.

(d) An employee shall be paid for incentive hours earned at the appropriate incentive rate for his job classification as set forth in the Incentive Rate Agreement between the parties attached hereto.

Agreement between—

Employer: Heinz U.S.A.
Union: Meat Cutters
Expiration date: March 1980

Section F. Incentive rates

All incentive rates in the Pittsburgh Factory in effect on the date of this Contract shall continue in effect during the term of this Contract unless changed in accordance with the Rules Governing the Installation and Operation of Incentive Rates attached hereto and by this reference made a part hereof.

Rules Governing the Installation And Operation of Incentive Rates

1. Incentive rates installed hereafter in accordance with the procedures herein set forth and incentive rates in effect on the date of this Contract shall continue in effect and shall not be changed or discontinued unless there is a change in equipment, methods, materials, processes or specifications and which changes result in a change in the time requirements of the operations (except as provided in paragraph 8 below or as a result of arbitration under the 1960 Contract). Changes to be considered hereunder with respect to incentives installed prior to July 26, 1949, shall be those occurring since July 26, 1949, and changes to be considered hereunder with respect to incentives installed since July 26, 1949, shall be those occurring since such incentives were installed or since the last revision, if any of such incentive.

2. New incentive rates may be installed, at the discretion of the Company, on new jobs or on jobs not pre-

sently covered by incentives:

3. New incentive rates shall be installed on jobs presently or hereafter covered by incentives where there has been a change in equipment, methods, materials, processes or specifications unless it can be established that incentive compensation under new incentive rates on such a job would not be beneficial both to the Company and to the employee or employees involved.

4. In establishing incentives whether a replacement for an existing incentive or a new incentive, the rules and principles set forth below shall apply:

- (a) The Company shall decide the type of incentive to be used, for example, individual or group, and bonus, piece-work, or standard hour.
- (b) When it is determined that an incentive is to be installed with respect to any operation, such operation shall be time studied a sufficient number of times to establish an equitable incentive standard which shall reflect the amount of work a normal qualified employee or group of employees working efficiently at normal day work pace under normal operating conditions should produce in a given period of time.
- (c) Incentive rates hereafter installed shall be based upon the principle that for every one (1) per cent increase in production over and above the production called for by the standard, the incentive worker will receive one (1) per cent increase over the grade rate for the job.
- (d) Only such production as meets the established quality specifications on the operation to which the incentive is applicable will be counted in calculating the amount of incentive earned.
- (e) Management reserves the right within one (1) year after installation to correct clerical or calculating errors that may occur in the development of a standard.
- (f) With respect to employees working on incentive rates established after July 26, 1949, short delays up to and including six (6) minutes, which are not under the control of the employee are included in the time standard. Any continuous delay over six (6) minutes not controllable by the employee will be allowed in full at the job grade rate.
- (g) With respect to employees working on incentive rates established prior to July 26, 1949, reported waiting periods in excess of an aggregate of fifteen (15) minutes in any one (1) day will be paid at the appropriate job grade rate.

5. While working on an incentive basis employees are guaranteed daily earnings equal to earnings at job

grade rates for the jobs performed for the number of hours they work.

6. All incentive rates (including bonus and piece-work rates) applicable to each department shall be posted in that department and a copy sent to the Union.

7. Incentive rates shall be established in accordance with the following procedure:

- (a) The Company will develop the proposed new incentive.
- (b) The proposed new incentive may be installed by the Company, and the employees affected may at any time after sixty (60) days, but within one hundred and twenty (120) days following installation, file a grievance alleging that the new incentive is not based on an equitable incentive standard which reflects the amount of work a normal qualified employee or group of employees working efficiently at normal day work pace under normal operating conditions should produce in a given period of time. Such grievance shall be processed under the grievance and arbitration procedures of this Contract. If the grievance is submitted to the arbitration procedure, the arbitrator shall decide whether or not the incentive was established in accordance with the rules herein set forth.
- (c) In the event the Company does not develop a new incentive as provided in paragraph 3 above, the employee or employees affected may, if filed promptly, process a grievance under the grievance and arbitration procedures of this Contract requesting that new incentive be installed in accordance with the provisions of these Rules.

8. Notwithstanding the provisions of any or all of the foregoing Rules, the Company agrees to cancel any incentive rates upon notice from the Union that it desires such cancellation provided such notice is given in writing not earlier than three (3) months and not later than six (6) months after its installation and further provided such notice is certified by all of the elected officers of the local Union.

Agreement between—

Employer: FMC Corporation
Union: United Steelworkers of America
Expiration date: September 1979

Article XV—Standard Hour Incentive Plan (SHP)

1.1 SECTION 1. The basic incentive system is of the standard hour type. Other suitable time standards may be used in those situations where standard hours are inappropriate. The incentive system, known as the Standard Hour Plan (SHP) is set forth in this Article XV.

2.1 SECTION 2. The applicable rate from the EWS progressive wage rate schedule, which is set forth in Article XIII, shall be the applicable rate for computation of incentive earnings for all incentive job classifications. The employee's day rate shall be the applicable rate from the progressive rate schedule. The "Time Standard" is the number of pieces which equals one standard hour. For example, an employee's earnings on incentive are computed as follows:

Standard	100 pieces=1 std. hour
Output in shift.....	1,000 pieces
Hours earned.....	$1,000 \times 1/100=10$ hours
Hours worked on turn.....	8
Bonus	2
Base rate.....	\$2.16
Base pay 8 hrs. at	$\$2.16 = \17.28
Bonus pay 2 hrs. at.....	$\$2.16 = \$ 4.32$
Earnings in dollars (10 hrs. \times \$2.16) ..	\$21.60 for the shift

2.2 For the determination of the applicable rate in those group incentive installations where the production job classifications are evaluated

- (a) in the same labor grade, that labor grade will be used; or
- (b) in two (2) consecutive labor grades, the higher of the two (2) labor grades will be used; or
- (c) in more than one labor grade, but not in consecutive labor grades, one (1) labor grade will be established for the group; or
- (d) in more than two (2) consecutive labor grades, one (1) labor grade will be established for the group.

The above items (a), (b), (c), and (d) do not apply to service employees.

3.1 SECTION 3. Base Period Calculation Of Incentive Earnings. Incentive earnings will ordinarily be computed for each employee for the total hours worked on incentive during a single shift. Exceptions will exist (1) when an employee works in more than one job classification during the same calculation period, in which case the incentive earnings will be calculated separately for each job classification, or (2) when, for example, an operation requires more than one shift to complete a unit or when production records are unobtainable on a per shift basis in which latter case earnings shall be computed for such longer period as the operation or production records may require.

3.2 Payment of 125% of the EWS Base Rate paid for training under Section 8.3 of this Article XV and for Union lost time under Article XIII, Section 8, shall be separated from incentive calculations.

4.1 SECTION 4. Incentive Groups. In calculating incentive for top-rated employees in groups, the total bonus hours are determined for the group and divided among the members of the group in proportion to the hours spent in the group by each. Both actual hours and bonus hours are paid to each employee at the base hourly wage rate.

4.2 Appropriate schedules shall be adopted for charging hours of, and crediting bonus hours to, employees in a group who have not reached the top of the progressive wage rate schedule.

5.1 SECTION 5. How Standards Are Set. Time standards will be established which are based on sound and accepted industrial principles. Appropriate allowances for such factors as personal time and other factors inherent in the operations will be provided and will be shown separately from the incentive allowance in the computation of the standard. An allowance of 25% will be added to provide for incentive opportunity. This 25% allowance will be added to the total work time plus other allowances.

5.2 Normal incentive pace shall be pace rated at 100% (leveling) and shall be defined as that incentive rate of performance achievable by a qualified operator utilizing his time and abilities effectively at a work pace that can be maintained for a day's work under normal conditions.

5.3 The Union will be notified in advance of any new installation of SHP standards. A complete and detailed written method description will be prepared by the Industrial Engineering Department. A copy of the method description will be made available in the department when the job is being run and shall be available to the Union timestudy representative in connection with any dispute concerning the correctness of the standard.

5.4 The development of each incentive standard shall contain a detailed elemental

breakdown of time for each portion of the incentive task. It shall also show the allowances and the amount thereof which were included in the development of the standard. The Industrial Engineering Department shall endeavor to use time values for manual elements which are related to a consistent norm throughout the Company's plants and, to this end, shall arrive at a system which will help to minimize disputes over "leveling."

5.5 Timestudy personnel will establish time for work performance on the basis of objective studies of the work performed and not on the basis of production records. Wherever practical, observations will be of regular experienced operators on the operation involved.

6.1 SECTION 6. Indirect Employees. Indirect employees who

- (a) are presently paid a bonus based on the performance of the employees whom they service; and
- (b) are not placed on directly measured standards under the SHP

shall continue to be paid an indirect bonus, calculated for the appropriate pay or accounting period, equal to the percentage of pay above base rate averaged by the employees whom they service. The percentage so calculated will apply to the indirect employee's base rate.

7.1 SECTION 7. Correction Of Standards. Upon the establishment of a standard under the SHP, the employees shall make an honest effort to develop incentive earnings during a fair trial period of not less than thirty (30) days. During this trial period, no grievance may be filed contesting the fairness of the standard, but the employee may, through his foreman, request the Industrial Engineering Department to recheck the standard after eight (8) hours of effort.

7.2 During the sixty (60) days next following the fair trial period, employees affected may file a grievance under the Basic Agreement concerning the correctness of a standard. It is recognized that individual SHP standards may provide somewhat more or less than 25% incen-

tive earnings opportunity even though they are set as accurately as Industrial Engineering techniques permit. Also, individual operators will vary in their performance against the standard. In case of grievances, the question for decision shall be the correctness of the standard as to the time measurements and allowances used in accordance with this Plan as provided in Section 5 above. If the standard is found not to have been correctly established, it shall be corrected in such manner as is necessary to comply with Section 5; and, in the event of arbitration, the Arbitrator shall have the authority to direct changes so as to preserve the opportunity for equitable earnings in accordance with the intent of Section 5. If no grievance is filed within ninety (90) days from the date the standard was established, the standard shall be deemed a permanent one, subject to change only for the reasons set forth below in this Plan.

7.3 If a standard is revised pursuant to grievance, the revision shall be made retroactive to the date that the standard was installed.

8.1 SECTION 8. Payment For Loss Of Time. Delays may occur because of equipment failures, power failure, lack of material or other causes. When such delays occur and the employee reports this fact to the foreman (or his designated representative), and is not then transferred to other work, he will receive payment for the time so lost at his base hourly rate, if the total time so lost reaches 2/10ths of an hour (12 minutes). Minor delays of shorter duration which may occur throughout the day are compensated for in the standard.

8.2 The Company will pay a special rate of 115% of the base rate of an incentive worker for all time as follows:

- (a) When an operator makes a request to his supervisor for a standard on an unrated operation and
 - (1) The Industrial Engineering Department is of the opinion that a standard is practical (when a standard is not practical, the Company will give the appropriate reason(s) upon request); and

- (2) The operation is not checked for the purpose of establishing a standard within four (4) hours after the request is made; and
- (3) A standard is not established before the job runs out.

8.3 The Company will pay a special rate of 125% of the EWS base rate of an incentive worker, or 125% of the EWS base rate of the job classification where temporary assignment occurs, whichever is the greater, to a non-supervisory, incentive operator, for all time;

- (a) During assignment to work designated as "developmental" by the Industrial Engineering Department, such as operation of new machines, or machining of machine tools, trying new tools, or machine parts for our own use in lieu of incentive standards, or shakedown of other new operations or equipment requiring a break-in period before standards can be established.
- (b) During assignment to train another employee when his regular duties do not consist of such assignment. Payment of the foregoing rate shall be made for the period of such training. Selection of the operator for such training assignment will be made solely by the departmental supervision on the basis of his ability without regard to seniority.
- (c) During assignment and as authorized, work with non-bargaining unit employees from Quality Control, Laboratories, or Engineering when such assignments interfere with the affected employee's productivity.

9.1 SECTION 9. Non-Incentive Work. While it is intended to establish standards for all operations on which an incentive plan is considered practicable, there may be occasions when standards have not been established for various reasons. In such cases, the employee working on such an operation is paid at his base hourly wage rate. Any time so spent is not included in the calculation of incentive earnings and, therefore, the incentive bonus which an employee has earned will not be impaired because of the time he spends on unmeasured work. If the Union feels that the

Company is not achieving the maximum practical incentive coverage in any department, the Company agrees to discuss this matter with the Union.

10.1 SECTION 10. Conditions For Change In Standards. A standard is established for the specific method under specified conditions and is, therefore, logically applied only when the work is performed under the conditions so established. When the conditions are changed by a measurable amount, the standard is void and no longer applicable. Examples of changes in conditions which void a standard are:

- (a) Changes in equipment, including tools.
- (b) Changes in manufacturing processes, procedures or methods.
- (c) Changes in quality standards.
- (d) Changes in the material dimensions, analysis or other specifications.
- (e) Changes due to safety equipment or safety devices.

10.2 Proven errors in the computation in the establishment of a standard may be corrected after notification to the Union and shall be explained to the employees involved.

10.3 When one of the changes in conditions described above occurs, the Industrial Engineering Department will establish a new standard as promptly as practicable. Where the conditions for which the new rate being established will be limited in duration, the Industrial Engineering Department may release it with a notation that it is for "this job only" or for a specified period of time. Standards thus established shall be known as "Temporary Standards—Conditions" (TC Standards).

10.4 If it is impractical to establish either a temporary or permanent standard, the employee is paid daywork at his base hourly rate for the time spent on the operation and does not lose any of the bonus he has earned on normal material.

11.1 SECTION 11. Responsibility For Standards. The establishment of standards, the administration of the incentive plan and justified revisions are the responsibility of the Company.

11.2 However, all time standards shall be

subject to grievance as provided herein, and the data supporting them are available for inspection by authorized Union representatives.

12.1 SECTION 12. Modified Red Circles and ID's. When changes, such as method changes, process changes, new equipment purchases, audit of Job Evaluation Program, etc. occur after an employee is placed on the EWS schedule, resulting in changes of job classification or the establishment of a new classification that decreases the job evaluation point values one (1) full labor grade or more for an employee assigned, or which establishes a new job classification which replaces that classification and under circumstances when an incumbent employee accepts, within or outside his department, a new reduced labor grade rate on his own classification, or on a successor classification because the job evaluation point value has been reduced more than one (1) full labor grade below the point value of his original classification, then a "Modified Red Circle" or "Modified ID" will be established for such employee.

12.2 The amount of such "Modified Red Circle" will be equal to the amount of the difference between the labor grade base rate of the employee's current job classification and the labor grade base rate of the new or revised job classification. This may be expressed as:
Modified RC = (old EWS B.R. - new EWS B.R.)

12.3 The amount of such "Modified Incentive Differential" will be equal to the amount of the difference between 125% of the labor grade base rate of the employee's current job classification and 125% of the labor grade base rate of the new or revised job classification. This may be expressed as:
Modified ID = (1.25 old EWS B.R. - 1.25 new EWS B.R.)

12.4 At approximately the time of establishment of the Modified Red Circle or Modified Incentive Differential the Company will advise employees of the amount of their Red Circle or Incentive Differential multiplied by 2000 hours as a complete payment. Notification will be in a

letter to the employee or employees informing him of his Modified Red Circle or Incentive Differential. Payment shall be made within fourteen (14) working days at the labor grade contended for by the Union pending final determinations.

12.5 "Modified Red Circle" and "Modified Incentive Differentials" will be effective under the following conditions:

(a) Reassignment of duties by reorganization of job classifications.

(1) Elimination of an existing job classification by separation of duties into two (2) (or more) new job classification.

(2) Separation of duties of an existing job classification into one (1) (or more) new job classifications with re-evaluation of the original job classification.

(3) Elimination of two (2) (or more) existing job classifications by combining duties into one (1) (or more) new job classifications.

(b) Operation changes resulting in new job classifications or re-evaluation of existing job classifications.

(1) Acquisition of new machines and/or equipment, or modification of existing machines and/or equipment, which replaces similar existing machines and/or equipment.

(2) Accumulated job evaluation changes, amounting to one (1) full labor grade (or more), as a result of reported job changes, or as a result of audit.

12.6 Irrespective of the provisions set forth in Section 12.1 through 13.1 of Article XV, those employees who are still carrying either existing or Modified Red Circles, or I.D.'s will continue to be governed by Sections 10.4 and 14.1 through 19.5 of Article XV and Article XIII, Sections 5.2 (a) and (b) and 9.1 (a) and (b) in the 1970 Labor Agreement.

13.1 SECTION 13. Group Leader Special Payment. When Group Leader positions are replaced by a nonbargaining unit supervisor, he will be eligible for a special lump

sum payment. The amount of this payment will be determined by multiplying the sum equal to the value of two (2) labor grade increments by 2000 hours.

13.2 The incumbent of the Group Leader position who supervises incentive employees under conditions outlined above, and who does not have the qualification or seniority to bump into an incentive job classification, will have the 25% as specified in Article XIII, Section 7 (b) multiplied by 2000 hours and the resultant amount added to his special lump sum payment.

13.3 The provisions of this Section do not apply when Group Leader positions are eliminated in a reduction of work force in a department. Modified Red Circles and Incentive Differentials do not apply to Group Leader positions.

...

9.1 SECTION 9. Temporary Assignments. When an employee is temporarily assigned from his regular job classification to a different job classification, he will be paid as follows:

(a) An employee assigned to a job classification where a work shortage has developed in accord with Article V, Section 6.18, will be paid the EWS Base Rate of his regular job classification, or his appraised Base Rate on the temporary job classification whichever is the greater.

(b) An employee assigned to a job classification where work remains for him in that classification, and

(1) is given an option of accepting the temporary assignment or of remaining in his regular classification, and elects to accept the temporary assignment, or

(2) is a dayworker who is affirmatively ordered by the Foreman to temporarily perform such work for the convenience of the Company, and

such assignment is to a job classification in a lower labor grade, the employee will have all his earnings, including incentive earned hours, calculated at his regular base rate, rather than at the base rate of the

lower labor grade. If such assignment is to a job classification in a higher labor grade, and the employee can be appraised on the appropriate EWS Training Schedule for that job classification at a rate which is higher than his regular base rate, such higher base rate shall be used.

(c) An employee assigned to an incentive job classification where work remains for him in that classification, and is affirmatively ordered by the Foreman to temporarily perform such work in another job classification will be paid a special rate:

(1) if assigned to a daywork job classification or to non-rated work, of 115% of his base rate, or his appraised base rate on the job classification where the temporary assignment occurs, whichever is higher;

(2) if assigned to rated work, his regular base rate or his appraised base rate on the job classification where the temporary assignment occurs, whichever is higher. A special additive of .15 bonus hours for each earned hour shall be paid in addition to any regular incentive bonus earnings while working on such incentive-rated work during this temporary assignment, or in the case of an employee who earns less than base rate during the assignment, as an addition to his guaranteed earnings.

Agreement between—

Employer: General American Transportation Corp. Chicago, Ill.

Union: United Steelworkers of America

Expiration date: September 1980

The General American Standard Hour Incentive Plan

The mechanics of establishing and maintaining the Standard Hour Incentive Plan involves six basic steps as follows:

1. The Recording of Timestudy Data.
2. The Recapping of Timestudy Data.
3. The Application of the Leveling Factor.
4. The Application of Allowances.
5. The Development of Standards Data or Methods of Pre-Determined Times.

6. The Establishment and Maintenance of Incentive Standards.

Step I—The Recording of Timestudy Data.

Timestudy data is compiled, by making actual on-the-job timestudies, and is checked for content, accuracy, method and elemental breakdown. Sufficient cycles are studied to adequately reflect the overall job cycles. Decision as to the number of cycles-necessary for obtaining the proper cycle time is dependent upon many variables, such as:

1. The consistency of elemental times;
2. The occurrences of elements relate to the operation, but not necessarily to the cycle;
3. The method of operation; and
4. The efficiency of the operator, in regard to skill of performance and effort expended.

The foreman must approve the operation method before the timestudy can be used for incentive establishment purposes. If, in the opinion of the foreman, the operation method is incorrect, then the foreman must reinstruct the employee as to the correct operational procedure to follow and a new timestudy is made.

Step II—The Recapping of Timestudy Data.

The timestudy is recapped to determine the proper operation cycle time. The selection of values is wholly dependent upon the type of timestudy made and the consistency of the elemental times recorded. Where practical, the observer during his observance of the operation, will note those cycle elements which in his opinion reflect an equitable time value. These values are used as an indication of the representative elemental value.

Step III—The Application of the Leveling Factor.

The application of leveling is the introduction into timestudy of a factor, which measures variances in skill and effort between workers on a given operation, and through its use, time values are brought to the level of a standard worker.

The standard worker is considered a person applying average skill and normal incentive effort in performing a task. The standard worker is leveled at 100 percent.

Step IV—The Application of Allowances.

An allowance is an addition to the base time of an operation to provide for special conditions inherent in that operation.

A. Incentive Allowance.

An incentive allowance is added to the base time of an operation to compensate for applying average skill and normal incentive effort in the performance of the task. Since the expected attainment is 25 percent above that required of a normal worker working at a day work pace, the incentive allowance* thus equals 25 percent.

B. Personal Allowance.

A personal allowance is added to the base time of an operation to compensate for personal needs, such as, wash-ups, trips to lavatory, incidental rest periods, etc. A seven percent personal allowance is provided in all incentive standards covering operations not requiring definite rest periods.

C. Unavoidable Delay.

An unavoidable delay allowance is added, as required, to the base time to compensate for lost time during the work period for delays beyond the control of the worker. **

Step V—The Development of Standards Data or Other Methods of Pre-Determined Times.

Standards data is the consolidation of the full range of engineering information into a single source in pre-determining operation time standards.

Step VI—The Establishment and Maintenance of Incentive Standards.

Incentive Standards are established and maintained to currently reflect changes in equipment, methods, materials, quality standards, machine speeds or feeds, or design. This will necessitate re-study or revision to Standards Data for the various operations involved in such changes.

Agreement between—

Employer: Textron Inc., Campbell Wyant & Cannon Foundry Co.

Union: Auto Workers

Expiration date: March 1978

*The Sharon T.C. difference will be continued.

**For example, under normal conditions in a fabricating shop served by cranes, the allowance would be 7 percent—as circumstances vary, the allowance will vary up or down accordingly.

Old Standards of Production

- Establishing Standards**
- (87) In establishing production standards, Management will make time studies, and/or assign work quotas, on the basis of fairness and equity consistent with quality of workmanship, efficiency of operations and the reasonable working capacities of normal operators.
- (88) Prior to the time study of a job an elemental breakdown of the job will be made by the Company. It is agreed that when such breakdown is established it will not be changed during the course of that study. Studies will not be made during overtime periods.
- (89) Incentive rates shall become effective the beginning of the first shift of the day following their determination and approval by Management. Employees and their stewards will be informed of their new piece work price prior to the start of their shift.
- (90) The Company agrees that it will not change a standard of production subsequent to fifteen (15) working days after establishment unless there is a change, or an accumulation of changes over a period of time in material, equipment, product, method or layout. The Company, from the records available, will reflect in the changed standard of production only the part of the job that is changed. Obvious errors in standards of production (errors made on a time study on either a mathematical or typographical basis) which are not corrected within forty (40) working days after the establishment of a standard may be corrected by agreement with the Bargaining Committee. Obvious errors, in any event, may be corrected by the Company after the next anniversary date of this Agreement.
- (91) Complaints regarding standards established by Management or changed by Management because of changes in material, equipment, product, method or layout, may be presented as grievances. In the event of a dispute over a standard, the time study may be examined by the Union.

Old Incentive Plan (OIP)

- Payroll Rate**
- (92) Newly hired employees on a classification covered by this Plan shall have a Payroll Rate of one dollar twenty-six and one-half cents (\$1.26¹/₂) until they have worked on the classification for a period of thirty (30) days. Employees retained by the Company in the classification for a period of thirty (30) days shall, at the beginning of the following pay period, receive an increase in payroll rate to one dollar thirty-one and one-half cents (\$1.31¹/₂) per hour.
- Employees retained by the Company in the classification for a period of sixty (60) calendar days shall, at the beginning of the following pay period, receive an automatic increase of five cents (5¢) an hour to the maximum Payroll Rate of one dollar thirty-six and one-half cents (\$1.36¹/₂) per hour.
- Down Time**
- (93) Employees on classifications covered by this Plan who through no fault of their own lose time shall receive their payroll rate for such downtime, provided that all delays of three (3) minutes or less shall not be considered as lost time or downtime and employees shall receive no compensation therefor under this paragraph. Such employees assigned to "found work", which includes work in the immediate area which is of a laboring nature, but does not include a requirement to clean pits or tunnels, will be paid at a rate of \$1.65 per hour for such time.
- (94) Employees on incentive classifications which are listed in Schedule "A" of this Agreement shall be paid their incentive earnings or one dollar and fifty cents (\$1.50) per hour for the day, whichever is higher.
- (95) Incentive jobs will be timed in relation to a Timing Rate of one dollar sixty cents (\$1.60) so that experienced workers when working at 100% of incentive efficiency will earn the Timing Rate plus twenty (20) percent. It is understood that 100% represents the three (3) mile an hour pace.
- Where an employee, because of machine control, is prevented from exercising free effort, there shall be added to the machine

control time an additional allowance of fifteen percent (15%). This is on new and changed jobs.

- (96) Piece prices now in effect will not be changed except as provided in paragraphs (90) and (91). Piece work rates set or re-set in the future will conform with this Agreement.

Payment on Old Incentive Classifications in Lieu of Piece Work Rates

Samples (97) (a) Any employee called upon to make samples shall be paid one dollar and seventy cents (\$1.70) as an hourly rate for the time so spent.

Rate Prior to Establishment of Standard (97) (b) Any employee called upon to get a new job in production prior to the establishment of an incentive rate, or during the period in which a new incentive rate is being established as a result of a change in material, equipment, product, method or layout shall be paid one dollar and seventy cents (\$1.70) per hour until a standard is established.

Short Run Jobs (97) (c) Any employee assigned to a "short-run" job on which no piece work rate is established or on which the Company does not intend to establish a piece rate shall be paid one dollar and seventy cents (\$1.70) per hour for time so spent.

(97) (d) Any employee assigned to Experimental Core Making, Experimental Core Assembly—Complete, and Experimental Molding shall be paid one dollar and seventy cents (\$1.70) per hour.

Experimental work is defined as an operation undertaken to develop a new product, the method of manufacture of which is unknown to the Company, and for which the Company has no order.

New Standards of Production

- (98) (a) In establishing production standards, Management will make time studies on the basis of a normal operator working at a normal work pace, under normal operating conditions with consideration for the reasonable working capacities of normal operators.

(98) (b) Prior to the time study of a job, an elemental breakdown of the job will be made by the Company. It is agreed that when such breakdown is established, it will not be changed during the course of the study. Studies will not be made during overtime periods.

(98) (c) Incentive rates shall become effective the beginning of the first shift on the day following their determination and approval by management. Employees and their stewards will be informed of their new piecework rates prior to the start of their shift. New piecework rates will be reviewed with the departmental committeeman.

(98) (d) The Company agrees that it will not change a standard of production subsequent to fifteen (15) working days after establishment unless there is a change, or an accumulation of changes, over a period of time in material, equipment, product, method or layout.

The Company, from the records available, will reflect in the changed standard of production only the part of the job that is changed. Obvious errors in standards of production (errors made on a time study on either a mathematical or typographical basis) which are not corrected within forty (40) working days after the establishment of a standard may be corrected by agreement with the Bargaining Committee. Obvious errors, in any event, may be corrected by the Company after the next anniversary date of this agreement.

(98) (e) Complaints regarding standards established by management or changed by management because of changes in material, equipment, product, method or layout may be presented as grievances. In the event of a dispute over a standard, the time study may be examined by the Union. The Union may utilize the International Union Time Study Department when there is a rate dispute.

All production standards established shall have a personal, fatigue and delay allowance of 12% under normal conditions. This 12% will be calculated into standards by

adding it to the leveled time per piece to give the allowed time per piece (5% personal, 5% fatigue, 2% delay). Provisions will be made to provide a downtime recording system for abnormal conditions not covered by the normal delay allowance included in the standards.

All work elements will be time studied and included in the calculation of normal time per piece including noncyclic work necessary for the completion of the job.

New Incentive Plan

- (99) (a) Newly hired employees on a classification covered by this plan shall have the following payroll rates for the periods of time stated:
- \$5.03 per hour for the first thirty (30) days (30-day rate)
 - \$5.08 per hour for the second thirty (30) days (60-day rate)
 - \$5.13 per hour for the third thirty (30) days (90-day rate)
- The 90-day rate will be the maximum payroll rate. (Add future wage increases to the above payroll rates.)
- (99) (b) Employees on classifications covered by this Plan who through no fault of their own lose time shall receive their payroll rate for such downtime, provided that all delays of three (3) minutes or less shall not be considered as lost time or downtime and employees shall receive no compensation therefor under this paragraph. Employees on downtime may be assigned to "found work", which includes work in the immediate area which is of a laboring nature but does not include a requirement to clean pits or tunnels.
- (99) (c) Employees on incentive classifications which are listed in Schedule "A" of this agreement shall be paid their incentive earnings plus generated COLA or \$5.13 per hour plus generated COLA for the day, whichever is higher. (Add future wage increases to above guaranteed rate.)
- (99) (d) Incentive jobs will be timed in relationship to a timing rate or base rate of

\$5.13 per hour so that experienced workers can earn 125% expected incentive earnings at incentive work pace.

For each 1% increase in work pace above normal there will be a 1% increase in pay. (Add future wage increases to above rate.)

Where an employee, because of machine control, is prevented from exercising free effort, there shall be added to machine controlled elements an additional allowance of twenty-five (25) percent.

- (99) (e) Piece prices now in effect will not be changed except as provided in paragraphs (98) (d) and (e), except to place them on the new incentive system. Piecework rates set or reset in the future will conform with this agreement.

Payment on Incentive Classifications in Lieu of Piecework Rates

- (100) (a) Any employee called upon to make samples shall be paid five dollars and eighteen cents (\$5.18) as an hourly rate for the time so spent (plus future wage increases and generated COLA).
- (100) (b) Any employee called upon to get a new job in production prior to the establishment of an incentive rate, or during the period in which a new incentive rate is being established as a result of a change in material, equipment, product, method or layout shall be paid five dollars and eighteen cents (\$5.18) per hour until a standard is established. (Plus future wage increases and generated COLA.)
- (100) (c) Any employee assigned to a "short-run" job on which no piecework rate is established or on which the Company does not intend to establish a piece rate shall be paid five dollars and eighteen cents (\$5.18) per hour for time so spent. (Plus future wage increases and generated COLA.)
- (100) (d) Any employee assigned to Experimental Core Making, Experimental Core Assembly-Complete, and Experimental Molding shall be paid five dollars and eighteen cents (\$5.18) per hour (plus future wage increases and generated COLA.) Experimental work is

defined as an operation undertaken to develop a new product, the method of manufacture of which is unknown to the Company and for which the Company has no order.

New Classifications

- (106) When a new non-incentive or incentive job classification is created, the Company will set up a job classification and a rate covering the job and will designate it as temporary, and so notify the committeeman of the District prior to its establishment.

The new classification and rate shall be considered temporary for a period of thirty (30) calendar days. During this thirty-day period (but not thereafter) the committeeman of the District may request the Company to negotiate a rate for the classification by filing a grievance which shall not be subject to arbitration.

Any rate negotiated shall be retroactive to date of establishment unless otherwise agreed.

Classification Changes

- (107) An employee who is changed from a non-incentive to an incentive classification shall receive a Payroll rate on the new classification as of the effective date of the transfer as provided in Paragraph (92).

...

- (111) Employees working on Incentive Classifications (Schedule "A") with less than one hundred and twenty (120) days seniority shall, if changed to [hourly

rated] classifications . . . receive their present rate or the minimum rate of the new classification, whichever is higher, and shall have their rates increased in accordance with the time limits in Paragraph (101).

Employees working on Incentive Classifications (Schedule "A") with more than one hundred and twenty (120) days seniority, shall, if changed to [hourly rated] classifications . . . be paid their present rate or five (5) cents below the maximum rate of the new classification whichever is higher. They shall receive the maximum rate of the new classification at the beginning of the pay period following the end of thirty (30) calendar days.

In no event shall any employee receive more than the maximum rate of the new classification.

- (112) Employees working on Incentive Classifications (Schedule "A") shall, if changed within their department to [hourly rated] classifications . . . receive the maximum rate of their new classification provided they have been employed at an incentive basis of pay for at least sixty (60) days in their department or in a department in which similar operations are performed in any other of the Muskegon Plants of the Company.

- (113) Employees working on Incentive Classifications (Schedule "A") shall, if changed to classifications covered by Paragraphs (103) or (104), the Merit Increase Plan, receive not less than the minimum rate of the new classification.

Appendix B. Identification of Clauses

All unions are affiliated with the AFL-CIO except those designated as (Ind.)

<i>Clause number</i>		<i>Expiration date</i>		
1	Wilson and Co., Inc., and Wilson Pharmaceutical and Chemical Corp., Interstate Meat Cutters (MCBW)	September 1979	15	American Standard, Inc., Westinghouse Air Brake Co., Wilmerding, Pa. Electrical Workers (UE) (Ind.)
2	Firestone Tire and Rubber Co., Interstate Rubber Workers (URW)	April 1979	16	Owens-Illinois, Inc., Kimble Division, Vineland, N.J. Flint Glass Workers (AFGW)
3	Milton Bradley Co., Springfield, Mass. Retail, Wholesale and Department Store (RWDSU)	April 1979	17	I.T.E. Imperial Corp., Philadelphia, Pa. Auto Workers (UAW) (Ind.)
4	Infants and Children's Coat Association, Inc., and Other, New York, N.Y. Ladies' Garment Workers (ILGWU)	May 1979	18	The Wm. Powell Co., Cincinnati, Ohio Steelworkers (USA)
5	Allis-Chalmers Corp., LaPorte Plant, LaPorte, Ind. Auto Workers (UAW) (Ind.)	November 1979	19	Avtex Fibers, Inc., Production and Maintenance Unit, Pa., Va., W. Va. Clothing and Textile Workers (ACTWU)
6	Crouse-Hinds Co., Syracuse, N.Y. Electrical Workers (IBEW)	March 1981	20	Interco, Inc., Interstate Boot and Shoe Workers (BSW)
7	ACF Industries, Inc., AMCAR Division, Pa., W. Va., Mo. Steelworkers (USA)	March 1981	21	Crucible, Inc., Midland and Pittsburgh, Pa., Syracuse, N.Y. Steelworkers (USA)
8	Fedders Corp., Norge Co. Division, Herrin, Ill. Machinists (IAM)	December 1977	22	Reliance Electric Co., Dodge Manufacturing Division, Mishawaka, Ind. Steelworkers (USA)
9	Western Electric Co., Oklahoma City Works, Okla. Electrical Workers (IBEW)	August 1980	23	Fisher Controls Co., Marshalltown, Iowa Auto Workers (UAW) (Ind.)
10	American Standard, Inc., Louisville Plant, Ky. Standard Allied Trades Council (12 AFL-CIO and Ind. Unions)	January 1978	24	Homestake Mining Co., Lead, S.D. Steelworkers (USA)
11	Armco Steel Corp., Middletown, Ohio Armco Employees Independent Federation, Inc., (Ind.)	July 1977	25	American Cyanamid Co., Bound Brook Plant, N.J. Chemical Workers (ICW)
12	ITT Gwaltney, Smithfield, Va. Teamsters (IBT) (Ind.)	January 1979	26	Dana Corp., Interstate Auto Workers (UAW) (Ind.)
13	Luggage Leather Goods Manufacturers' Association of New York, Inc., N.Y. Leather Goods, Plastic and Novelty Workers (LGPN)	April 1980	27	Continental Can Co., Interstate Steelworkers (USA)
14	Western Electric Co., Merrimack Valley Works, North Andover, Mass. Communications Workers (CWA)	August 1980	28	Anchor Hocking Corp., Cincinnati, Ohio Glass Bottle Blowers (GBBA)
			29	Eaton Corp., Industrial Truck Division, Philadelphia, Pa. Machinists (IAM)
			30	General Electric Co., Chicago and Cicero Plants, Ill. Sheet Metal Workers (SMW)
			31	Garage Attendants Agreement, Chicago, Ill. Area Teamsters (IBT) (Ind.)
			32	Clark Equipment Co., Industrial Truck Division, Battle Creek Plant, Mich. Allied Industrial Workers (AIW)

33	Jno. H. Swisher and Sons, Inc., Jacksonville, Fla.	June 1979	51	Allied Underwear Association, Inc., New York, N.Y.	June 1978
	Retail, Wholesale and Department Store Union (RWDSU)			Ladies' Garment Workers (ILGWU)	
34	General Tire and Rubber Co., Industrial Products Division, Wabash, Ind.	June 1979	52	Cyclops Corp., Detroit Steel Corp. Subsidiary, Empire-Detroit Steel Division, Portsmouth, Ohio	August 1977
	Rubber Workers (URW)			Steelworkers (USA)	
35	Gates Rubber Co., Denver, Colo.	August 1979	53	Simplicity Pattern Co., Inc., Niles, Mich.	September 1977
	Rubber Workers (URW)			Graphic Arts (GAIU)	
36	Knitgoods Agreements, Cleveland, Ohio	November 1978	54	Remington Arms Co., Inc., Ilion, N.Y.	August 1978
	Ladies' Garment Workers (ILGWU)			Employees Mutual Association (Ind.)	
37	Affiliated Dress Manufacturers Association, Inc., and 2 others, New York, N.Y.	May 1979	55	Fieldcrest Mills, Inc., Columbus Towel Division, Columbus, Ga., Phoenix City, Ala.	March 1978
	Ladies' Garment Workers (ILGWU)			Clothing and Textile Workers (ACTWU)	
38	Londontown Corp., London Fog Rainwear and Outerwear Division, Pa., Md., and Va.	November 1979	56	Heinz U.S.A., H.J. Heinz Co. Division, Pittsburgh, Pa.	March 1977
	Clothing and Textile Workers (ACTWU)			Meat Cutters (MCBW)	
39	Anchor Hocking Corp., Lancaster, Ohio	September 1980	57	Dresser Industries, Inc., Transportation Equipment Division, Depew, N.Y.	September 1978
	Flint Glass Workers (AFGW)			Steelworkers (USA)	
40	Massachusetts Leather Manufacturers Association, Peabody, Mass.	September 1980	58	Western Electric, Inc., Omaha, Nebr.	August 1977
	Leather Workers (LWU)			Electrical Workers (IBEW)	
41	Associated Garment Industries of St. Louis, Dress Branch, Mo. and Ill.	June 1979	59	Cyclops Corp., Universal-Cyclops Specialty Steel Division, Pa.	September 1977
	Ladies' Garment Workers (ILGWU)			Steelworkers (USA)	
42	Libbey-Owens-Ford Co., Interstate Glass and Ceramic Workers (UGCW)	October 1980	60	Phoenix Steel Corp., Claymont Plant, Claymont, Del.	July 1980
				Steelworkers (USA)	
43	Questor Corp., Spalding Division, Chicopee, Mass.	August 1977	61	Erwin Mills, Durham, N.C.	May 1976
	Boilermakers (BBF)			Clothing and Textile Workers (ACTWU)	
44	Magma Copper Co., San Manuel, Ariz.	July 1977	62	National Hand Embroidery and Novelty Manufacturers Association, New York, N.Y.	June 1979
	Steelworkers (USA)			Ladies' Garment Workers (ILGWU)	
45	Sunbeam Corp., Sunbeam Appliance Co. Division, Chicago, Ill.	January 1979	63	Outboard Marine Corp., Evinrude Motors Division, Milwaukee, Wis.	March 1981
	Machinists (IAM)			Steelworkers (USA)	
46	Teletype Corp., Skokie, Ill.	August 1977	64	Gulf Resources and Chemical Corp., The Bunker Hill Co., Kellogg, Idaho	May 1977
	Teletype Employees Industrial Union (Ind.)			Steelworkers (USA)	
47	Thatcher Glass Manufacturing Co., Calif., Ill., Ind., N.J., N.Y.	March 1977	65	Industrial Association of Juvenile Apparel Manufacturers, Inc., Greater New York Area	May 1979
	Glass Bottle Blowers (GBBA)			Ladies' Garment Workers (ILGWU)	
48	Cluett, Peabody and Co., Inc., Arrow Co. Division, Ga., Minn., Pa., Ala., N.Y.	August 1979	66	Diamond Fruit Growers, Inc., Hood River, Ore.	June 1979
	Clothing and Textile Workers (ACTWU)			Teamsters (IBT) (Ind.)	
49	Greater Blouse, Skirt, and Undergarment Association, Inc., New York, N.Y.	May 1979	67	Associated Coat and Brassiere Manufacturers Association, New York, N.Y.	February 1977
	Ladies' Garment Workers (ILGWU)			Ladies' Garment Workers (ILGWU)	
50	Kaiser Steel Corp., Steel Manufacturing Division, Fontana, Calif.	August 1977	68	Seabrook Farms Co., Bridgeton, N.J.	February 1977
	Steelworkers (USA)			Meat Cutters (MCBW)	

69	Los Angeles Coat and Suit Manufacturers Association, Los Angeles, Calif.	May 1979	86	Koppers Co., Inc., Metal Products Division, Baltimore, Md.	October 1980
	Ladies' Garment Workers (ILGWU)			Machinists (IAM)	
70	Borg-Warner Corp., Warner Gear Division, Muncie, Ind.	March 1977	87	All-Steel, Inc., Aurora, Ill.	April 1982
	Auto Workers (UAW) (Ind.)			Boilermakers (BBF)	
71	International Harvester Co., Wisconsin Steel Works, Chicago, Ill.	September 1977	88	Emhart Corp., Berlin, Conn.	April 1979
	Progressive Steel Workers Union (Ind.)			Machinists (IAM)	
72	Pleaters, Stitchers, and Embroiderers Association, Inc., New York, N.Y.	February 1976	89	Bulova Watch Co., Inc., Bulova Systems and Instruments Corp., New York City and Nassau County, N.Y.	January 1980
	Ladies' Garment Workers (ILGWU)			Independent Production, Maintenance, and Service Employees Union of the Bulova Watch Co. (Ind.)	
73	General Tire and Rubber Co., Mayfield, Ky.	October 1979	90	Spiegel, Inc., Chicago and Oakbrook, Ill.	February 1980
	Rubber Workers (URW)			Teamsters (IBT) (Ind.)	
74	Gardner-Denver Co., Quincy, Ill.	April 1977	91	Garment Industries of Illinois, Ill., Ind.	August 1979
	Machinists (IAM)			Ladies' Garment Workers (ILGWU)	
75	Gibson Products Corp., Gibson Appliance Corp., Greenville Products Corp., Belding Products Corp., General Appliance and Authorized Parts, Greenville, Mich.	November 1980	92	G.T.E. Automatic Electric, Inc., Northlake, Ill.	April 1979
	Auto Workers (UAW) (Ind.)			Electrical Workers (IBEW)	
76	Mirro Aluminum Co., Manitowoc and Two Rivers, Wis.	July 1977	93	Beaunit Corp., Elizabethton, Tenn.	March 1977
	Steelworkers (USA)			Clothing and Textile Workers (ACTWU)	
77	Cone Mills Corp., White Oak Plant, Greenboro, N.C.	May 1978	94	Dayco Corp., Southern Division, Waynesville, N.C.	April 1980
	Clothing and Textile Workers (ACTWU)			Rubber Workers (URW)	
78	Samsonite Corp., Denver, Colo.	March 1981	95	The Carborundum Co., Niagara Falls, N.Y.	July 1979
	Rubber Workers (URW)			Oil, Chemical and Atomic Workers (OCAW)	
79	Watsonville Employers Food Association, Watsonville, Calif.	June 1979	96	Addressograph Multigraph Corp., Euclid, Ohio	June 1977
	Teamsters (IBT) (Ind.)			Machinists (IAM)	
80	Microdot, Inc., Valley Mold and Iron Co. Division, Hubbard, Ohio	August 1977	97	Deere and Co., John Deere Horicon Works Subsidiary, Horicon, Wis.	September 1977
	Steelworkers (USA)			Machinists (IAM)	
81	Johnson and Johnson and Ethicon, Inc., North Brunswick, N.J.	May 1979	98	Davol, Inc., Providence, R.I.	January 1977
	Clothing and Textile Workers (ACTWU)			Rubber Workers (URW)	
82	The Torrington Co., Torrington, Conn.	May 1979	99	Auto Specialties Manufacturing Co., St. Joseph, Mich.	June 1977
	Auto Workers (UAW) (Ind.)			Auto Workers (UAW) (Ind.)	
83	Needle Trades Employers Association, New Bedford, Taunton, Fall River, Mass., Tiverton, R.I.	May 1979	100	Simmons Co., Interstate	October 1979
	Ladies' Garment Workers (ILGWU)			Upholsterers' (UIU)	
84	Colt Industries Operating Corp., Pratt and Whitney Machine Tool Division and Chandler Evans, Inc., Division, West Hartford, Conn.	February 1980	101	Zenith Radio Corp., Chicago, Ill.	June 1978
	Auto Workers (UAW) (Ind.)			Independent Radionic Workers (Ind.)	
85	Bucyrus-Erie Co., Milwaukee, Wis., Evansville, Ind.	August 1979	102	Hoover Co., Canton and North Canton, Ohio	April 1980
	Steelworkers (USA)			Electrical Workers (IBEW)	
			103	Uniroyal, Inc., Interstate	April 1979
				Rubber Workers (URW)	
			104	Dunlop Tire and Rubber Corp., Buffalo, N.Y.	June 1979
				Rubber Workers (URW)	
			105	International Harvester Co., Production and Maintenance, Interstate	September 1979
				Auto Workers (UAW) (Ind.)	
			106	Western Electric, Inc., Hawthorne, Ill.	August 1977
				Electrical Workers (IBEW)	

107	Armstrong Rubber Co., Interstate... Rubber Workers (URW)	July 1979	Directly Affiliated Local Union (AFL-CIO)
108	Kelly-Springfield Tire Co., Cumberland, Md.	June 1979	128 Century Brass Products, Inc., Waterbury Divisions, Conn. April 1979 Auto Workers (UAW) (Ind.)
109	Deere and Co., Iowa and Ill.	October 1979	129 Rexnord, Inc., West Milwaukee Operations, Wis. April 1979 Steelworkers (USA)
110	FMC Corp., Bearing Division and Chain Division, Indianapolis, Ind.	September 1979	130 Aldens, Inc., Chicago, Ill. January 1981 Steelworkers (USA)
111	Greater New York Folding Box and Display Manufacturers Association, Inc.	September 1977	131 Cudahy Co., Cudahy Food Co. Subsidiary, Interstate. August 1979 Meat Cutters (MCBW)
112	American Hospital Supply Corp., Hamilton Industries Division, Two Rivers, Wis.	July 1979	132 The Rath Packing Co., Interstate. August 1979 Meat Cutters (MCBW)
113	Automobile Dealers Industrial Relations Association of New York, Inc., N.Y.	June 1980	133 Montgomery Ward and Co., Inc., Chicago, Ill. August 1977 Teamsters (IBT) (Ind.)
114	RCA Corp., Harrison and Edison, N.J.	December 1976	134 Whirlpool Corp., St. Paul Division, Minn. July 1979 Teamsters (IBT) (Ind.)
115	Parke, Davis and Co., Detroit, Allen Park and Rochester, Mich.	May 1979	135 Stackpole Carbon Co., St. Marys and Kane, Pa. October 1978 Electrical Workers (IUE)
116	TRW, Inc., Metals Division, Minerva, Ohio.	May 1978	136 Cyclops Corp., Empire-Detroit Steel Division, Chicago, Ill. October 1980 Steelworkers (USA)
117	Armour and Co., Interstate.	August 1979	137 Dayton Tire and Rubber Co., Dayton, Ohio. April 1980 Rubber Workers (URW)
118	Westvaco Corp., Container Division, Interstate.	July 1976	138 NCR Corp., Dayton, Ohio. June 1977 Auto Workers (UAW) (Ind.)
119	Copperweld Steel Co., Warren, Ohio	August 1980	139 John Morrell and Co., Chicago, Ill. . August 1979 Meat Cutters (MCBW)
120	Montgomery Ward and Co., Inc., Kansas City, Mo.	July 1977	140 Erwin Mills, Erwin, N.C. January 1979 Clothing and Textile Workers (ACTWU)
121	Jeep Corp., Toledo, Ohio.	January 1980	141 The Babcock and Wilcox Co., Tubular Products Division, Beaver Falls Works, Beaver Falls, Pa. August 1980 Steelworkers (USA)
122	American Motors Corp., AM General Corp. Subsidiary, South Bend and Mishawaka, Ind.	June 1979	142 Oscar Mayer and Co., Davenport Plant, Iowa. August 1979 Meat Cutters (MCBW)
123	Avco Corp., Avco Lycoming Division, Oliver Street Plant, Williamsport and Montoursville, Pa.	May 1977	143 Avco Corp., Avco New Idea Division, Coldwater Plant, Ohio. . April 1978 Steelworkers (USA)
124	Weyenberg Shoe Manufacturing Co., Milwaukee, Portage, Beaver Dam and Waterloo, Wis.	December 1978	144 Aeronutronic Ford Corp., Electronics Division, Lansdale Plants, Mich. June 1979 Auto Workers (UAW) (Ind.)
125	White Motor Corp., White Trucks Division, Cleveland, Ohio.	March 1980	145 Westinghouse Electric Corp., Master Agreement, Interstate. July 1979 Electrical Workers (IUE)
126	Oscar Mayer and Co., Inc., Chicago, Ill.	June 1980	146 Ladish Co., Cudahy, Wis. February 1979 Machinists (IAM)
127	The Moore Co., Inc., Springfield and Chicopee, Mass.	March 1980	147 Oscar Mayer and Co., Madison, Wis. August 1979 Meat Cutters (MCBW)
			148 Trico Products Corp., Buffalo, N.Y. . June 1977 Trico Workers Union (Ind.)
			149 Ford Motor Co., Interstate. September 1979 Auto Workers (UAW) (Ind.)
			150 Joy Manufacturing Co., Franklin, Pa. August 1980 Machinists (IAM)
			151 General Dynamics Corp., Stromberg Carlson Corp., Subsidiary, Rochester, N.Y. October 1977 Electrical Workers (IUE)

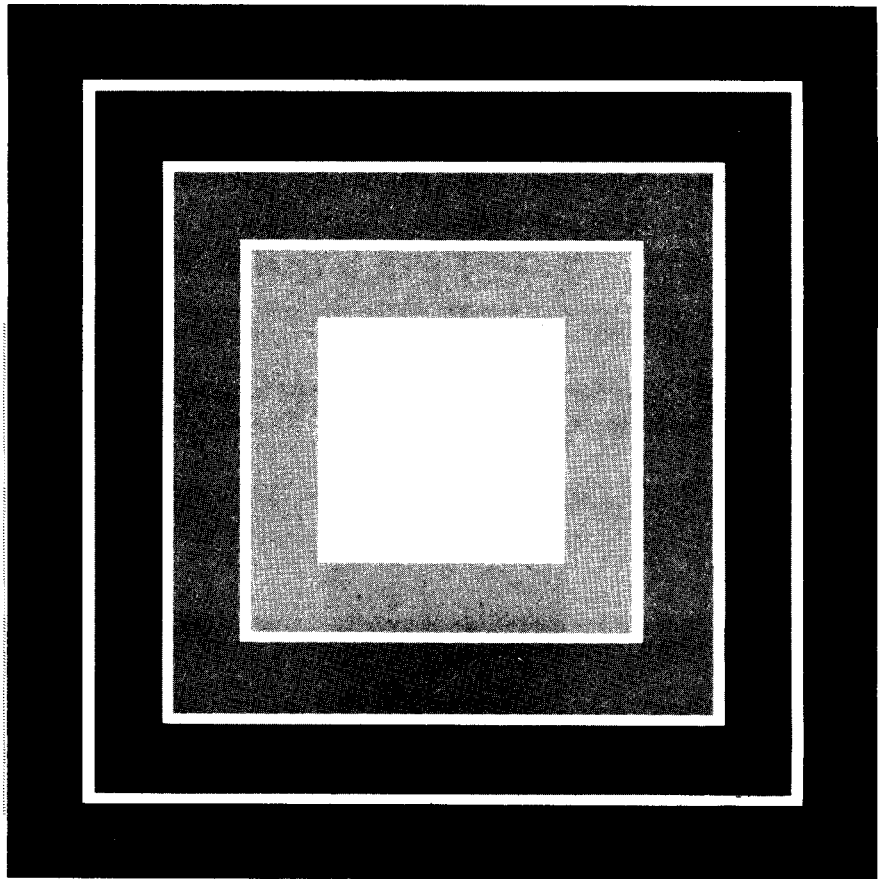
152	American Motors Corp., Milwaukee and Kenosha, Wis.	September 1978	164	Ford Aerospace and Communications Corp., Refrigeration Products Division, Connersville, Ind. Plant	June 1981
153	Chrysler Corp., Airtemp Kentucky Plant, Bowling Green, Ky.	May 1977		Electrical Workers (IUE)	
154	Western Electric Co., Inc., Buffalo Works, N.Y.	August 1977	165	Metropolitan Container Council, Inc., N.Y. and N.J.	October 1979
155	Brown Co. and Brown-New Hampshire, Inc., Berlin, N. H.	June 1978		Distributive Workers (DWA) (Ind.)	
156	Sun Shipbuilding and Dry Dock Co., Chester, Pa.	January 1979	166	Kelly-Springfield Tire Co., Tyler, Tex.	September 1979
157	True Temper Corp., Interstate	June 1978		Rubber Workers (URW)	
158	Admiral Corp., Chicago, Ill.	September 1978	167	Colgate-Palmolive Co., Jersey City Plant, N.J.	November 1979
159	Eltra Corp., Interstate	February 1980		Employees Association, Inc. (Ind.)	
160	Zenith Electronics Corp. of Iowa, Sioux City, Iowa	April 1978	168	Swift and Co., Interstate	August 1979
161	Chicago Midwest Meat Association, Chicago, Ill.	April 1979		Meat Cutters (MCBW)	
162	SKF Industries, Inc., Philadelphia Plants, Pa.	March 1978	169	McCall Printing Co., Dayton, Ohio.	October 1983
163	General Motors Corp., Interstate	September 1979		Graphic Arts (GAIU)	
	Electrical Workers (IUE)		170	Campbell Soup Co., Sacramento, Calif.	April 1979
				Teamsters (IBT) (Ind.)	
			171	New England Sportswear Manufacturers' Association, Boston, Mass.	June 1979
				Ladies' Garment Workers (ILGWU)	
			172	NCR Corp., Terminal Systems Division, Ithaca, N.Y.	July 1979
				Machinists (IAM)	
			173	J. I. Case Co., Interstate.	June 1977
				Auto Workers (UAW) (Ind.)	

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- Paper, Paperboard, and Pulp Mills
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- Petroleum Refining
- Tires and Inner Tubes
- Footwear
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- Hydraulic Cement
- Structural Clay Products
- Concrete Products
- Ready-mixed Concrete
- Steel
- Gray Iron Foundries
- Steel Foundries
- Primary Smelting and Refining of Copper, Lead, and Zinc
- Primary Aluminum
- Copper Rolling and Drawing
- Aluminum Rolling and Drawing
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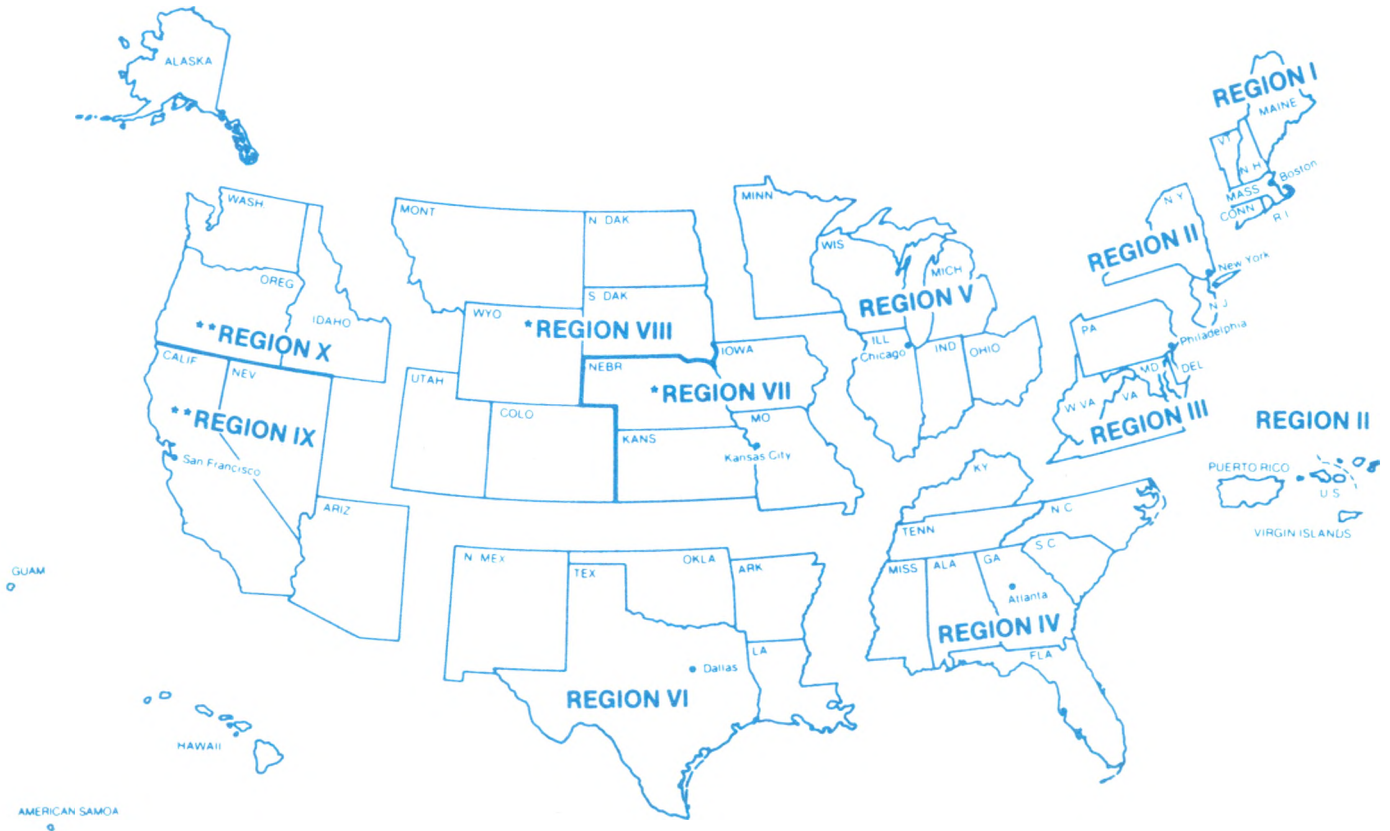
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