

The effectiveness of any form of graduated time payments as an incentive to effort depends, more than on any other thing, upon the reliability with which the place of the employe in the wage scale is determined. If the employe feels that what pay he gets depends largely on how well he "stands in with the boss," the incentive will be one to propitiate the foreman rather than to do better work. It is in proportion to the confidence of the worker that the value of his work will be fairly reflected in the amount of his earnings, that a graduated time rate becomes effective as inducement to productive effort. Probably the most important steps in improving time payment as a financial incentive have thus been the clearer definition of the reasons for advancement, and the regularization of pay changes by employment department supervision and by accurate records of the employe's attainment. Production records have for years been widely employed, but recently the technique of rating has developed sufficiently so that ratings of other merits, such as quality, versatility or waste, have become important means of determining an employe's pay value. Such records are of value not merely as an aid to management in regulating pay justly, but also in making clear to the employe his own standing and the direct effect of his attainment upon his remuneration. For the power of the pay envelope as an incentive rests not only upon the justice of remuneration, but also upon the conviction of the employe that if he does more he will be paid more, and upon his knowledge of how he is doing.

The importance of records and of making the employe aware of his standing and progress removes much of the significance of the distinction between financial and the so-called "non-financial" incentives. Rarely does either stand entirely alone. Always men are paid for their work and are thus under financial incentive. Even where flat rates are paid, the hope of promotion to some better job or some executive position, or of increased security of employment, usually gives to the worker a financial interest in the improvement of his standing. With flat rates, if records are employed, though they operate in part as financial incentives, their non-financial aspects predominate. With a properly de-

⁶The value of any form of time payment as an incentive does not apply with the same effect to girls as to men and older women. Because they expect to stay in industry but a short time, girls are less interested in promotion and in long run financial inducements than men.

termined and applied sliding scale of payment the non-financial and financial inducements blend, strengthening, not impairing, each other and giving to time rates a potent incentive power.

Payment for Work Done

An immediate financial incentive is provided when the amount which the employe receives each pay day depends directly upon the amount of work, he has done. Before the advent of scientific management direct payment for results almost universally took the form of straight piece rates. The old piece rates were set either by the hunch of the shop foreman or by a bargain between the union and the company. They were consequently crude and not fairly adjusted to the amount of skill and effort required to make the particular product. The greatest defect in the old piece rate, however, was that the practice of rate cutting was commonly associated with it. Frequently when the employes, over a considerable period of time, worked hard for extra earnings and materially increased their pay, the management cut the rate and reduced their future earnings to "a fair day's pay" in spite of the extra effort. Thus, while the piece rate was an immediate incentive to increase output, the fear of rate cutting created a more powerful long-run, counter incentive to keep production down. Moreover, if any employe, heedless of his individual future, expended exceptional effort in order to increase his present earnings to the maximum, he soon felt the crushing force of social disapprobation against his "killing the rate." Even where the rates were set by collective bargaining, the employes learned that too high piece rate earnings were not desirable. To a large degree the rates which they were able to secure from their employers depended upon what the average weekly yield of those rates had been in the past. If weekly earnings under any piece rates were above the going wage in the community, the union had a hard task in bargaining for an increase or even retention of the rate. In all respects the piece rate had wasted its power through riotous cutting.

With the coming of scientific management the same forces that contributed so richly to the improvement of manual technique were applied to the improvement of wage technique and the restoring of the vitality of direct financial incentives. Conditions and methods were carefully studied and

standardized, not merely to make them as efficient as possible, but also to make them as stable as possible. The amount of output which an employe could give using standard methods under standard conditions was then determined as accurately as possible by time study. A rate thus "scientifically determined" was expected to stand the test of time and was promulgated with the guarantee that it would not be cut unless the method of manufacture was substantially changed. This rendering of the piece rate at once accurate and secure against cutting cured most of its former evils.

This primary development ushered in a host of lesser improvements and modifications. Variety began to appear in the manner in which the financial pressure was applied. The straight piece rate gave a fixed return per piece and varied neither to mitigate the hardship of the learner nor to stimulate the attainment of a set standard. The newer rates varied in a number of ways for a number of purposes. Taylor devised a differential piece rate that aimed to discourage all but the outstanding workers and to make the reward of outstanding ability strikingly worthwhile. He set a low rate of return per piece until a severe "task" had been accomplished in the given time, and after that point not only increased the rate on subsequent units produced within the standard time, but applied the higher rate retroactively over all that had been produced. If the employe fell short of the allotted task by no matter how narrow a margin, no bonus was forthcoming; if he accomplished it, all that he had done before acquired a new value that made the total increase great. Such a rate not only put a high premium upon exceptional ability and energy in the worker, but upon exceptional accuracy in setting the rate. If the task was set too high, the rate would discourage all comers; if it was set too low, the amounts carried home by the worker would soar. It was a courageous investment in scientific accuracy worthy of Taylor, but because of its harshness both upon the worker and management, it was hardly a lead that many would follow. At the other extreme was the tapering off of the piece payment with each additional unit of output, thus both reducing the risks of rate setting and the strength of the incentive to outstanding performance. Such rates, however, could be used where standardization and accurate time determination

had not been accomplished; but because of their crudity and weakness had many disadvantages and few advantages as compared to skillfully applied time payment differentials.

A more fruitful mitigation of the severity of the financial pressure of the straight piece rate is the combination in one form or another of time and piece payment. Because this reduces the amount of the employe's earnings that vary in proportion to his output, it reduces on the one hand the management risk of loss and on the other hand the employe's risk of hardship. While this is, of course, done at the expense of the potency of the immediate financial incentive, the presence of the time rate enables other values than production to be recognized. To the same extent that the variation of pay in proportion to output is diminished, the way is opened for rewarding quality, versatility or other values.

Just as the flat time rate favors mediocrity of output, the straight piece rate, which rewards production only, favors mediocrity of quality. While efforts in the form of special bonuses have been made to extend exact payment by results to cover quality and waste, the difficulty and expense of securing sufficiently accurate measurement of individual daily attainment in regard to these intangible values have usually proved prohibitive of such measures. In the combined time and piece payment the long-run recognition of quality and similar intangible values is combined effectively with the immediate incentive upon output.

An important advance in the technique of payment for work done is the statement of output in terms of standard time, instead of in terms of number of products or operations finished. Each job is given a definite standard number of minutes for its performance, and the employe paid so much per standard hour regardless of the actual time taken. The financial result to the employe is exactly the same as if the work was paid for by the piece, but the whole problem of calculating production is greatly simplified by having all jobs stated in terms of a common unit. Jobs of various sorts can thus be considered in a single computation of the standard times involved, the value of which in planning and work room control is self-evident. Likewise, all dealings in regard to piece rates are reduced to the determination of