

## Motivating Workers

Firms use incentives to encourage efficient behavior. Appropriate incentives increase output and decrease internal monitoring costs. Regular increases in wages over time, vested pension funds, piece rates (the worker is paid according to the number of units of output produced), bonuses and contests, and stock ownership can improve internal efficiency by providing incentives for employees to work harder.

For example, Terry Fairbanks, the owner of CopyMat (a chain of stores providing copying services), found that by giving his workers a percentage cut of the business they do, a lot more gets done. Operators who were alone on the graveyard shift (at night) used to run a single copy machine. With the incentives, they run several machines at once (*San Francisco Chronicle*, October 26, 1987:C1). Typically, as the incentive structure changes so as to create incentive for workers to be efficient, the monitoring cost of internalizing activities decreases.

Piece-rate compensation, for example, encourages workers to work faster (Billikopf and Norton, 1992). Agricultural workers often are paid by the piece to encourage them to pick as many fruits as possible. Piece-rate workers generally pick more per hour than those paid an hourly wage.

Vineyard pruners who are paid by the piece work more quickly than those paid by the hour and do as good a job according to most growers. Hourly workers take 26 labor hours to prune an acre; piece-rate workers only need 19 labor hours. That is, hourly workers prune 73 percent as fast as piece-rate pruners.

Pruners paid a piece rate work at the same speed day after day. Pruners paid by the hour, however, tend to work at the same speed as other hourly workers.

In some cases, however, the firm is concerned about both how many fruits are picked and how carefully they are handled to prevent bruising. Thus, with delicate fruit like strawberries, many firms prefer to use hourly wages to encourage care in handling. Alternatively, firms may use piece rates and randomly check the quality of the strawberries picked. Those workers with unusually good quality strawberries are rewarded (or those with inferior berries are penalized).

Many firms use prizes and contests to motivate their employees to work hard. An excellent example of a contest is the race to enter top management. The salary structure in large companies typically rewards top management at a much higher level than middle management, from whom top managers are frequently chosen. Even at the highest levels, wide differences in salary can exist. For example, the chairperson at Bank America earned \$1,600,000 in salary and bonus in 1991, while the vice-chairperson earned "only" \$1,000,000 (*Business Week*, May 4, 1992:149). The prize of a high salary motivates managers to distinguish themselves by working hard. Even if the large salary has no relation to a manager's worth, it may be economically justified if it motivates all managers to work hard and strive for the top prize.

The longer employees stay with a firm, the more management knows about their abilities. Therefore, even if they do not become more skilled over time, they become more valuable because the firm knows exactly what they do best. To reduce turnover, firms often pay low wages initially and high wages later. Young workers choose not to leave because of the anticipation of higher payment, such as higher wages or a pension that workers would forfeit if they left before a specified time (Becker and Stigler 1974, Lazear 1979).

Another common motivational tool is stock ownership. Workers or managers who own stock in a firm prosper when the firm does well. Thus, stock creates an incentive for hard work even when workers can't be observed by their superiors. Top management in medium-to-small manufacturing firms in the Fortune 500 held about 20 percent of their firm's shares (Demsetz 1983). Demsetz and Lehn (1985) find that stock ownership by key employees increases with the difficulty and need that outsiders would have in monitoring employee performance. [Demsetz (1983) finds, however, that for the largest manufacturing firms in the Fortune 500, stock ownership by top management is much lower, around 2 percent.]

**SOURCES:**

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