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APPRAISAL AND REWARD
Revised Chapter 7 of Human Resource Management: An Economic Approach

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Chapter 7: Appraisal and Reward

In a previous chapter, it was noted that labor is not a homogeneous factor of production. Even within narrowly-defined occupations, labor can differ in productivity and value to the employer for various reasons. Two are particularly important for this chapter. First, employees may have different "endowments" of skills, talents, innate traits, and learned behavioral characteristics. Second, employees may choose to vary their behavior in response to conditions at the workplace including incentives and disincentives that may be built into the reward system.

It is evident that the variability in employee quality - which may not be detectable or predictable at the time of hiring - will require some type of policy response from the employer. One possibility is simply to gear wages to productivity directly so that, for example, a worker who is 10% more productive than another will enjoy a 10% premium relative to his/her fellow employee. But such payment systems are only possible in the case of well-defined and measurable output.

Alternative pay systems which are geared to productivity will be discussed in a later chapter. But for many types of jobs, piece rates or other pay plans tied to measured production are not feasible. At this point let it simply be noted that historically, the long-term trend has been away from such pay formulas and toward time-based wages, e.g., hourly pay rates or weekly, monthly, or yearly salaries. There has been substantial talk about implementation of "pay for performance" since the early 1980s, but hard evidence that employers are actually adopting this approach is lacking. In many cases, employers may be thinking of the kinds of discretionary merit plans described in this chapter when they state a renewed interest in pay for performance. But such programs been standard practice for many years.

It was also indicated in an earlier chapter than the team element in production often would render output-linked pay differentials impractical in cases of large behavioral differences between employees. A poor worker, who spreads negative externalities to his or her fellow employees, may so adversely affect productivity that no positive wage, no matter how low, could make it worthwhile for the employer to continue to employment relationship.

I. Performance Appraisals.

Given these considerations, some mechanism in the workplace must be established to evaluate employee performance. When conducted on a formal basis, such systems are often described by human resource professionals as "performance appraisals." Once performance is evaluated, various employer responses are available.

In cases of favorable reviews, rates of pay can be increased through a merit plan. In addition, highly-rated employees can be promoted or rewarded with bonuses. Where negative reviews occur, employees may be denied a merit pay increase, warned to correct their deficiencies, even disciplined or dismissed.

Table 1 presents the results of a survey taken in the late 1980s of employer practice with regard to performance appraisal systems. Ninety-seven percent of the respondents reported that their firms had a performance appraisal system in place.[1] As can be seen from the table, it is rare for the human resource department not to play a major role in administering the system. However, many firms share the responsibility between the human resource department and the department whose employees are being rated. The pattern in this regard is similar for both managerial and non-managerial employees.

Although the use of formal performance appraisal is very common, the union sector provides an exception. In the case of unions, there may be strong resistance to the subjective element in performance appraisals. Instead, unions are likely to push for an objective measure, especially seniority for determining pay adjustments for individual workers. There issue must be seen in the context of the bargaining relationship. If unions are successful, they boost wages beyond what the employer would normally pay. With a discretionary element allowed, employers

Table 1

Responsibility for Performance Appraisal Function

	Percent of Respondents With Feature
Company Has Performance Appraisal Function	97%
Of Those With Function:	
Assign it to Personnel/ Human Resource Department	47 (M) 47 (NM)
Assign it to Personnel/ Human Resource Department and Other Departments	45 (M) 44 (NM)
Assign it to Other Departments Only	8 (M) 8 (NM)

Note: M = Plan for Management Employees; NM = Plan for Non-Management Employees. Based on survey of 685 employers taken 1987-1988.

Source: Bureau of National Affairs, Inc., "Personnel Activities, Budgets, and Staffs: 1987-1988," Bulletin to Management, BNA Policy and Practice Series, vol. 39 (September 1, 1988), p. 2.

Table 2

Performance Appraisal Plan Coverage by Occupation
(percent covered)

Occupation	Nonunion	Union
Managers	87%	-
Professional/ Technical	90	71%
Clerical	87	47
Manufacturing Production Employees	81	40

Note: Based on a survey of over 500 large businesses.

Source: John Thomas Delaney, David Lewin, and Casey Ishniowski, Human Resource Policies and Practices in American Firms, U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, BLMR 137 (Washington: GPO, 1989), p. 56.

might be tempted to apply harsh standards in order to hold pay down and reverse the impact of bargaining. Thus, to have a performance appraisal plan linked to pay, there needs to be a significant element of union-management trust, something which may be lacking.

Box A on subjectivity and race

At the very top level of the firm, the standard performance appraisal program may also not apply.[3] Appraising top management in the context of the standard performance appraisal plan would be difficult; who would do the rating? Such matters are in principle left to corporate boards of directors in the private sector or to elected officials in public employment.

Since performance appraisals will have desirable or undesirable consequences for workers, the performance appraisal system must be seen as part of the incentive arrangements at the workplace. If good reviews lead to rewards, employees will strive to receive such reviews. Similarly, they will attempt to avoid unfavorable reviews, if these lead to penalties.

Ideally, the performance appraisal system will lead to higher employee productivity, since that is supposed to be the behavioral response which is rewarded. But as with any rating system, problems of design and implementation inevitably arise. Any

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Box A

Subjectivity and Racial Discrimination in Performance Appraisal

In Watson v. Fort Worth Bank & Trust, the U.S. Supreme Court considered the case of a black employee repeated passed up for promotions on the basis of evaluation by white superiors. The 1988 court decision in favor of plaintiff Clara Watson turned on the application of a doctrine known as "disparate impact" which is discussed in a later chapter. However, an important element in the case was the lack of a formal performance appraisal system at the employer. In a friend-of-the-court brief, the Reagan administration unsuccessfully urged the Court to find for the Bank on the grounds that subjective judgments were essential in evaluating employees. The Court's majority opinion summarized the facts of the case:

"Petitioner Clara Watson, who is black, was hired by... Fort Worth Bank and Trust... as a proof operator in August 1973. In January 1976, Watson was promoted to a position as teller in the Bank's drive-in facility. In February 1980, she sought to become a supervisor of the tellers in the main lobby; a white male, however, was selected for this job. Watson then sought a position as a supervisor of the drive-in bank, but this position was given to a white female. In February 1981, after Watson had served for about a year as a commercial teller in the Bank's main lobby, and informally as assistant to the supervisor of tellers, the man holding that position was promoted. Watson applied for the vacancy, but the white female who was the supervisor of the drive-in bank was selected instead. Watson then applied for the vacancy created at the drive-in; a white male was selected for that job. The Bank, which has about 80 employees, has not developed precise and formal criteria for evaluating candidates... It relied instead on the subjective judgment of supervisors... All the supervisors involved in deny Watson the four promotions... were white."

As the description makes clear, the Bank would have been well served by a more formal process of performance appraisal. Watson settled her case out of court in late 1988 after the Supreme Court decision. At the time, she was unable to work because of kidney failure.

Source: Watson v. Fort Worth Bank and Trust, Supreme Court of the United States, no. 86-6139, June 29, 1988; United Press International dispatch, dateline Fort Worth, Texas, December 21, 1988.

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student who has taken an exam (and any instructor who has ever given one!) will have no difficulty in understanding these problems.

i. Loose Links in the Chain.

Note first that in a performance appraisal system, the reward that the employee hopes to achieve is linked only indirectly to his/her productivity. In theory, high productivity leads to a superior rating which, in turn, leads to a reward. But there are two loose links in the chain between productivity performance and the reward. The productivity performance must in fact be recognized (measured), and reflected in the employee's official rating, before a reward is possible. Even then, someone must examine the rating and decide to link it to the reward.

If either link in the chain is broken (individual productivity --> rating, or rating --> reward or penalty), the performance appraisal system will provide an economic incentive toward higher productivity.[3] Nor will it be a deterrent to improper conduct. In the real world, there are reasons why the chain might be broken at one or both points. Indeed, there are incentives in the workplace which can damage or prevent the proper functioning of a performance appraisal system.

ii. Supervisors as Performance Raters.

Most employees have supervisors. And in most organizations, supervisors form part of a larger, hierarchical authority structure. Supervisors have supervisors, who - in turn - have supervisors. One role of a supervisor is simply to provide instructions, i.e., to tell people what tasks to perform. However, the role of a supervisor is far more complex than simply being an order giver.

Trying to define the supervisory role is difficult, since the role varies from employer to employer. However, a legal definition does exist which illustrates the nature and scope of the role. In 1947, Congress amended basic U.S. labor law by passing the Taft-Hartley Act in order to remove existing protections for supervisors who wished to engage in collective bargaining.[4] At that time, the management community was afraid that unionized supervisors would not adequately represent their employers' interests and pressed for legislation. To make this legal modification, Congress had to define a supervisor. Since that time, a supervisor has been defined as:

> "...any individual having authority, in the interest of the employer, to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other employees, or responsibly to direct them, or to adjust their grievances, or effectively recommend such action..."

Supervisors may perform some or all of the above-listed tasks. Regardless of the scope of their duties, however, virtually all supervisory employees are capable of taking actions which can enhance or harm the welfare of their subordinates. Use of supervisors as raters in performance appraisal systems is close to universal.

Determining the productivity of subordinates and playing some role in linking that determination to tangible rewards is an important element of supervision. Poor supervisory training may hinder this process. But apart from training, if there is a potentially defective link in the connection between performance and rating, its roots are likely to be found in the incentives and disincentives facing supervisors. Perverse incentives can be accentuated by a badly-designed rating system. But even the best system cannot avoid the problem entirely.

iii. Agents, Principals, and Performance Appraisal.

If information were perfect and costless, supervisors would have little role to play in the firm. But because information is not perfect and costless, the firm must delegate to an individual (the supervisor) responsibility for local operations. Decentralization of authority (to some degree) is unavoidable. In this regard, the internal workings of the firm mirror the decentralized, external market.

Just as ordinary workers cannot be perfectly monitored, neither can supervisors. Supervisors can sometimes abuse their positions, i.e., take actions which benefit themselves at the expense of their employer. Since they have authority to take actions which can benefit or harm subordinates, supervisors could demand personal favors from subordinates. Such supervisory behavior, of course, is detrimental to the employer's interest (but may not be detected by the employer in a world of imperfect information). It is a classic illustration of the difficulty principals have in controlling their agents.

Cases of overt monetary "kick-backs" from employees to their supervisors are not common, but are certainly not unknown, either. More common is the vague impression around many workplaces that employees who do favors for supervisors may receive rewards. This impression about the agent (supervisor) may or may not work in the interest of the principal (employer). A rule that to get ahead, you should "please your boss" is fine for the employer <u>if</u> what pleases the supervisor-boss is congruent with advancing the employer's agenda. But congruence of interests between employer and supervisor is not always perfect and certainly is not guaranteed.

In the early part of this century, for example, production workers often viewed their foremen as repressive, arbitrary, and exploitative figures.[5] This resentment, in fact, contributed to the growth of the field of human resource management as employers experienced high costs of turnover from dissatisfied workers during the "tight" labor markets of World War I.[6] In addition, employers feared (and sometimes still do) that such resentments would provide footholds for union organizers among their workforces. More recently, the rash of litigation involving sexual harassment claims - often from women workers claiming that male supervisors demanded sexual favors in exchange for good ratings or career advancements - dramatically illustrates that supervisors do not always act in their employer's best interests.

Box B on supervisory abuse and sexual harassment

Obviously, a performance appraisal system will be sabotaged if supervisors use their power to give good or bad ratings to extract personal "rents" from workers. However, such blatant supervisory misconduct need not be present for a performance appraisal system to fail in its mission of providing incentives for high employee productivity. Other, more subtle (mis)incentives can have that effect and are far more pervasive.

One way to reduce the scope for supervisory abuse is to make the performance appraisal system formal and surround it with rules and procedures. Training of supervisors and managers in the uses

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Box B

Supervisory Abuse?

A lead sexual harassment case before the U.S. Supreme Court was Meritor Savings Bank v. Vinson, decided in 1986. The case involved a black subordinate and her black supervisor, an interesting parallel to the controversial confirmation hearings surround Justice Clarence Thomas and his former subordinate, Anita Hill (who also made allegations of sexual harassment) in 1991.

In the Vinson case, the plaintiff, Mechelle Vinson complained that her supervisor demanded sexual favors, showed her pornographic magazines, and subjected her to forcible intercourse. Vinson alleged that on one occasion when she confronted her boss, he declared, "This is my office and I will do what I like." Her supervisor denied all allegations.

A key issue before the court was whether the creation of a hostile work environment on the basis of sex by a supervisor constituted sexual harassment. After the favorable decision by the Supreme Court, the case was remanded to district court where the issue of who was telling the truth would have to be determined. Ultimately, the case was settled with an undisclosed out-of-court settlement in 1991.

Issues of sexual harassment and other related matters are discussed in a later chapter.

Source: Meritor Savings Bank v. Vinson, 100 SCt 2399 (1986); Mary Battiata, "Michelle Vinson's Tangled Trials; After the Supreme Court, Pursuing Her Harassment Case," Washington Post, August 11, 1986, pp. C1-__; American Lawyer Newspapers Group, Inc., Legal Times, October 14, 1991, p. 3.

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of performance appraisal can be important. As Table 3 shows, such features are common in performance appraisal plans. However, those programs which the respondents to the survey underlying Table 3 thought were especially effective tended to be more formal and emphasize training more than other plans.

iv. Performance Appraisal and the Rating of Raters.

Supervisors are judged, in part, by the quality of their subordinates. Since supervisory workers are supposed to motivate subordinates and to correct or eliminate subordinate mistakes and misconduct, a supervisor must be concerned about the effects of reporting an "abnormally" high number of problem employees. The consequences of such a report could be adverse to the supervisor's own interests.

Even if a supervisor simply drew an unlucky hand in the workforce he or she must supervise, accurately reporting that fact poses a certain risk. In a world of imperfect information - and imperfect appraisal of supervisors - rules of thumb such as "where there's smoke, there's fire" could undermine a supervisory career. A supervisor may feel it is best not to advertise workplace problems. Indeed, the worse the problems, the greater the incentive there may be to hide them. "Cover ups" are not just a practice of high government officials!

Table 3

Characteristics of Performance Appraisal Plans
(percent of respondents)

Plan Features	All Respondents	Respondents Believing Plans Were Effective (a)
Written Goals	66%	84%
Supervisory Instructions	69	77
Senior Management Training	64	79
Joint Supervisor-Employee Objective Setting	34	54
Integration with the Pay System	65	74

Note: Data are drawn from a 1989 study by the Wyatt Company involving 3052 respondents.

Source: George T. Milkovich, Alexandra K. Wigdor, eds., with Renae F. Broderick and Ann S. Mavor, Paying for Performance: Evaluating Performance Appraisal and Merit Pay (Washington: National Academy Press, 1991), p. 107.

Box C on Goldwyn quote

For the same reason, a department or production unit whose employees are highly rated is a positive reflection on that supervisor. Absent perfect information, those higher in the management structure may believe that a department or work unit with a highly-rated staff, must have a superior supervisor. There are, in short, incentives for supervisors to overstate the positive qualities of subordinates and to downplay subordinate deficiencies in any formal documentation.

Supervisors may feel that they can handle difficult or incompetent workers on an informal basis, bypassing the official performance appraisal mechanism (and the scrutiny of superiors). Those supervisors who elect the unofficial approach may find themselves embarked on a perilous course if the informal route fails, will be seen in a later chapter. But the temptation is there.

Box D on liability for incompetence

One exception to the supervisory incentive to avoid negative ratings involves fear of up-and-coming subordinates. A supervisory may worry that he/she will be upstaged and bypassed by a

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Box C

Supervisory (Mis)incentives?

> "I don't want any yes-men around me. I want everybody to tell me the truth, even if it costs them their jobs."
>
> Samuel Goldwyn

Perhaps the legendary CEO of MGM never really said it. But the quote illustrates the danger that release of information can pose to managers. Having a high grievance rate in your area can be unhealthy for a manager. Thus, as the text suggests, there are often incentives to cover up problems and not to provoke complaints by giving out poor performance ratings (even if deserved).

Source of the quote: Ashton Applewhite, William R. Evans, and Andrew Frothingham, And I Quote (New York: St. Martins Press, 1992), p. 243.

Box D

Liability for Incompetence

An employee whose incompetence is hidden by a supervisor could prove expensive for the employer. Employers can be sued for actions of their employees, especially if the employer should have known about an employee's deficiency.

In one case, a company specializing in blasting was hired by another to use dynamite in a quarry. The blasting company sent out an employee who did not know how to calculate charges appropriately in that setting. As a result, a massive explosion occurred, devastating the quarry and causing substantial loss of business and profits. Two courts upheld a large award for the plaintiffs.

Source: Watsontown Brick Co. v. Hercules Power Co. (265 FSupp 268 (M.D. Pa. 1967), 271, as reported in James W. Fenton, William N. Ruud, and James A. Kimbell, "Negligent Training Suits: A Recent Entry Into the Corporate Employment Negligence Arena," Labor Law Journal, vol. 42 (June 1991), p. 354.

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subordinate and may attempt to block the subordinate via low ratings. Or the supervisor may appropriate the ideas of the subordinate without giving credit where credit is due. Although in this case, supervisory misincentives produce low, rather than high, ratings, they still distort the performance appraisal process.

Performance appraisal systems are often linked to pay. The linkages may be informal, an issue discussed below. But good ratings can lead to merit increases for the employee. Generally, in organizational hierarchies, supervisors are expected (and themselves expect) to be paid more than subordinates. In the absence of perfect information on marginal productivity, it is assumed - not unreasonably - that supervisors contribute more incremental value to the employer than those who they direct. Thus, a supervisor who succeeds in raising the average pay of subordinates may succeed in raising his/her own pay level.

v. Employee Influence on Ratings.

The tendency of higher management to consider a problem-infected workforce to be the consequence of an ineffective supervisor creates yet another misincentive. Subordinates are made aware of their evaluations, usually as a formal part of the performance appraisal process.[7] There is a tendency on the part of supervisors to boost ratings of subordinate performance to misleading levels. Employees may know that worker complaints could undermine management confidence in supervisors. Or, even if they do not recognize this possibility, their supervisor will surely be aware of it.

Complaints stemming from dissatisfaction of poorly rated employees can produce a climate that a supervisor would prefer to avoid. Formal performance appraisal systems often feature some type of appeals procedure through which complaints can be lodged about unfavorable ratings.[8] One way of averting such problems is not to give poor ratings, even when merited, except in extreme cases. In addition, to avoid inter-employee jealousies and tensions, supervisors may give relatively undifferentiated ratings.

Box E on attitude surveys and ratings

Most medium-to-large-sized firms have some kind of grievance mechanism, whereby workers can file complaints if they feel mistreated by their supervisors. In unionized firms, these systems are usually highly formalized and typically provide for arbitration by a neutral, outside arbitrator if the grievance cannot be resolved internally. Larger nonunion firms, especially those which emphasize the human resource function, are likely to have formal grievance mechanisms, too (although only a few nonunion firms provide for an outside arbitrator as a final step of the process).[9]

Box E

Employee Attitude Surveys and Performance Appraisal

Many firms conduct periodic attitude surveys of employees. Supervisors may be held to account if a pattern of complaints emerges from the employees in their area. Again, there are incentives to avoid negative comments by avoiding truthful but negative performance appraisals.

> "The last survey was the worst one I have ever had. Several employees indicated they didn't understand their performance appraisal and this really hurt me."
>
> Supervisor in a large company commenting on results of an employee attitude survey.

Source of quote: Fred Foulkes, Personnel Policies in Large Nonunion Companies (Englewood Cliffs, N.J.: Prentice-Hall, 1980), p. 271.

Under a grievance system, the filing of a complaint by an employee inevitably will come to the attention of management. The supervisor involved will be questioned about the validity of the grievance and about his or her actions which precipitated the complaint. If many grievances arise from within a particular supervisor's jurisdiction, questions about the quality of supervision may be raised.

Higher management may begin to wonder why the supervisor does not solve problems before they arise. Even if the supervisor is not the cause of the initial complaints, perhaps he/she is poor at resolving conflict. Perhaps there is an adverse impact on productivity and morale caused by the workplace friction which the grievances are indicating.

Apart from monitoring formal grievances, larger firms may also conduct employee attitude studies to uncover areas of employee dissatisfaction. These studies sometimes involve periodic polling of workers to determine the nature and source of their workplace concerns. Supervisors in firms which conduct attitude surveys are aware that such reviews might reflect dissatisfaction if many unfavorable performance appraisals are given. Unfavorably-rated subordinates are unlikely to have kind words to say about their supervisors. Again, an incentive exists for supervisors to give too-high, and too-uniform, ratings.

Finally, it is important to note that giving subordinates poor ratings may create an actual productivity problem for the supervisor, not just the appearance of one. Employees and supervisors are really engaged in team production. Disgruntled employees may withhold cooperation from the team and reduce the unit's output. And supervisors are ultimately held accountable by management for their work unit's output.

vi. Why Should a Well-Managed Firm Have Perverse Incentives?

That perverse incentives can create perverse behavior on the part of supervisors can hardly be a controversial proposition. But from the economic perspective, why does a profit-maximizing firm permit such misincentives to exist (or even create them in the first place)? Surely, by correcting the improper incentives (and obtaining accurate performance appraisals) firms could enhance productivity and reduce unit labor costs. Are not top managers aware of these potential profit-enhancing cost savings?

The answer is "yes," top managers (including human resource managers) are aware of the difficulties inherent in performance appraisal. They even have evolved (partial) remedies for the problem (discussed in the next section). But the ultimate answer to the question of why perverse incentives are allowed to exist and persist is one of trade offs. The difficulties associated with performance appraisal are part of a general class of problems inherent in organizations. In general, these problems intensify as organizations grow larger. Larger organizations require that more and more delegations of authority must be made due to imperfect and costly information channels.

Balanced against the costs associated with organizational size and control are gains in coordination of operations which size brings. The firm effectively encloses a set of functions within its organizational structure and takes them out of the external market place. As was noted in the introductory chapter, in a perfect market of the type characterized in elementary economics textbooks, there would really be no firms. Rather, through a daily, costless, auction-like process, workers and owners of capital would organize themselves into temporary production units, based on prevailing prices and costs.

In the real world, however, forming such units on a daily basis would be prohibitively expensive. Firms (organizations) evolve as a result of these costs as the most efficient units of production. As organizations, the creation of firms entails costs associated with imperfect incentives, bureaucracy, etc. But firms that succeed show themselves to be more efficient than the outside market alternative. Within successful firms, human resource professionals attempt to minimize organizational costs (including misincentives), but cannot entirely eliminate them. Trade offs must be made between competing objectives.[10]

As a simple example, top management might decide that by reducing the number of middle and first-line supervisors, and by replacing them with a smaller number of "trusted" management agents, more accurate performance appraisals would result. Perhaps such benefits would accrue, but even if they did, the firm would simultaneously lose the economies previously gained by delegation and decentralization. It is management's role to balance the two objectives: information accuracy and reduced misincentives vs. decentralized efficiency.

Or, as another example, management could decide to stop monitoring signs of employee dissatisfaction because such monitoring provides a perverse incentive to supervisors to avoid giving poor ratings to low-productivity workers. (Some firms have abandoned formal performance appraisals for just such reasons). But a decision of this type deprives the employer of a source of information that sometimes <u>does</u> indicate poor supervision. Alternatively, the employer could retain the monitoring mechanism, but expend more resources to distinguish between poor supervisors and poor employees. Unfortunately, resources are scarce and expenditures must be limited. Real world systems of performance appraisal will always be imperfect.

In any case, employers may want to retain performance appraisal systems - even if they provide inaccurate information - because of the signaling effect they provide. To not have a system, however imperfect, might signal to employees that the employer does not place much weight on quality performance. Having a system - even if all involved understand its deficiencies - at least communicates that performance is important to the employer. The medium is the message.

II. Reducing the Perverse Incentives of Performance Appraisal.

In the previous section, two basic types of rating error were outlined, both related largely to incentives surrounding supervisors. First, supervisors might take advantage of their position of authority and discretion and award ratings in exchange for "favors" from employees. Second, they might find it advantageous to be overgenerous and undifferentiated in giving subordinates ratings in order to further personal career objectives. Various techniques have been tried to reduce these perverse behaviors which may otherwise undermine a performance appraisal system.

While firms will clearly want to improve their performance appraisal systems, the issue is always "at what cost?" There is a substantial literature in psychology aimed at trying to test and improve the accuracy of supervisor ratings. However, it is not clear - despite the voluminous research behind that literature - that there is an obvious "winner" among competing systems. The costs of trying to undertake performance appraisal systems that would please academic researchers in terms of their statistical properties often do not bring commensurate benefits. Indeed, the literature has been criticized for failing to go beyond measurement issues to the question of actual behavioral consequences for those who are rated.[11]

i. Documentation.

The more documentation that is required to back up ratings and the more that ratings are tied to tangible, i.e., verifiable, criteria, the less leeway there is for false or inflated reports. For these reasons, performance appraisal forms are often accompanied with detailed instructions to supervisors, defining the various rating scales as precisely as possible, and - in some cases - providing examples of behaviors which should receive high or low ratings. The use of such "behaviorally anchored rating scales" has the advantage of making concrete to the employee what types of behaviors are being sought. In some cases, supervisors may be required to cite specific instances, known as "critical incidents", of either superior or inferior performance on the part of the employee being rated.

Some rating systems rely partly or completely on essay-type responses, rather than on numerical scales. Proponents argue that use of the essay format will capture components of employee behavior that simple rating scales can miss. This argument is made especially for higher managerial and professional jobs, in which "check the box" answers are not informative. In addition, proponents insist that writing an essay requires more care than simply filling out a numerical form of the type shown in Box F.

The reader should immediately see a trade off involved in such methods. Elaborate instructions, detailed requirements for documentation, and lengthy essays all consume substantial time. Moreover, the time involved is typically that of higher-paid employees who perform the rating function. And, of course, care and accuracy are not necessarily proportional to the time consumed. But again, signaling is involved. If the performance appraisal system requires elaborate documentation, supervisors are given a sense that accurate appraisal is considered important by their superiors.

ii. Rankings.

Since there are incentives to rate most employees as being above average, performance appraisals systems can be structured to provide constraints on such tendencies. Supervisors can be asked, for example, to <u>rank</u> employees rather than give them absolute

Box F

Excerpt from a Simple Performance Appraisal Form*

Clerical Evaluation - continued   Page 2

For each work attribute, you are given five possible characterizations. Circle the characterization which best describes the employee you are rating. Indicate any additional comments you have in the spaces provided.

A. Work Quality (accuracy, neatness, thoroughness)

a. Excellent   b. Above Average   c. Average
d. Need for Improvement   e. Unsatisfactory

Comments:

B. Productivity (amount of work produced per day)

a. Excellent   b. Above Average   c. Average
d. Need for Improvement   e. Unsatisfactory

Comments:

C. Job Knowledge (degree of skill, awareness of duties)

a. Excellent   b. Above Average   c. Average
d. Need for Improvement   e. Unsatisfactory

Comments:

D. Relations with Others (ability to work with fellow employees and supervisors effectively)

a. Excellent   b. Above Average   c. Average
d. Need for Improvement   e. Unsatisfactory

Comments:

*Extracted from the actual form used by a large organization.

Box F - continued

Clerical Evaluation - continued

E. Dependability (quality of work, ability to carry through an assignment)

a. Excellent   b. Above Average   c. Average
d. Need for Improvement   e. Unsatisfactory

Comments:

F. Work Habits (care of office equipment, adherence to company and department policies, attendance, punctuality)

a. Excellent   b. Above Average   c. Average
d. Need for Improvement   e. Unsatisfactory

Comments:

G. Other________________
(specify)

a. Excellent   b. Above Average   c. Average
d. Need for Improvement   e. Unsatisfactory

Comments:

Overall Rating (Should be consistent with ratings on items A - G).

a. Excellent   b. Above Average   c. Average
d. Need for Improvement   e. Unsatisfactory

Comments:

___________________________   ___________________________
Supervisor's signature   Employee's signature*

*Your signature means only that you have read your supervisor's ratings. It does not mean you agree with them.

ratings. Or limits can be placed on the proportion who can be top ranked. The result is similar to "grading on a curve" in the educational setting.

However, the pitfalls are the same as in systems of grading on a curve; superior (inferior) employees who are located in departments where there happen to be high concentrations of high (low) productivity workers will tend to be lower (higher) rated than in the average department. Thus, rankings and constraints create problems of "horizontal equity" across departments. They create incentives, moreover, for high productivity employees to seek to transfer out of departments where there are other good performers.

Ranking systems also put employees into head-to-head competition, especially if the work group to which the ratings are applied is relatively small. Competition, of course, can be healthy. But where team production and cooperation are needed, the force competition may not produce the desired cooperative effect.

iii. Reviewing the Review.

Rather than rely on the design of the appraisal form to minimize misleading ratings, some firms prefer to subject the ratings to further review. Filled-out performance appraisals can be scrutinized by professionals employed in the human resource department. These reviewers may question results which appear out of line with past reports on the employee in question. Supervisors may also be questioned if their average ratings seem high relative to other departments. (Can everyone really be better than average?)

Such human resource reviews amount to a monitoring of the monitors by individuals who do not have an immediate, personal stake in the supervisor's relations with his/her employees. But there is an obvious expenditure involved in hiring monitors to monitor other monitors. And human resource professionals themselves are subject to potential misincentives. They do not want to appear to be constantly criticizing, and interfering with, the work of line managers. The goal of the organization is production, after all, not perfect appraisal.

Another commonly used option - which does not involve hiring professional monitors - is to have the rated employee read the completed form and add any comments he or she believes relevant. Indeed, in some systems, the employee is asked to help designate the relevant criteria to be rated in advance, a technique often called "management by objectives". Table 3 has already shown that such joint standard setting is found in about a third of all plans, but is more common among the formal plans thought by respondents to be especially effective.

Arrangements whereby the employee reviews the rating will tend to prevent false negative information from becoming part of the record without challenge. On the other hand, such steps are less likely to correct false positive information. And, since some systems require the supervisor to discuss the form personally with the employee, they may add to the incentive to inflate ratings and avoid distasteful confrontations. Even if a supervisor is skilled at giving constructive criticism, the subordinate may not be skilled at receiving it!

iv. Alternative Raters.

Although the vast majority of performance appraisal systems rely on supervisors to function as raters, other options for employers are available. A few companies ask employees to rate themselves, and provide a detailed list of questions for the employee to answer. On the surface, it might seem that employees would have strong incentives to overrate their performance. However, the incentives are more complex.

An employee who rates himself/herself uniformly high on all dimensions will be immediately suspect. No one is perfect. Hence, to appear honest, the employee has an incentive to identify <u>some</u> fault. Having done so, he/she is then under pressure to correct the self-identified problem. The exercise bears a resemblance to confession in the religious setting or the "self criticism" once practiced in communist countries.

Still another alternative is to have co-workers do the rating rather than supervisors. Such systems of "peer review" are quite rare, but they have traditionally been used for faculty in institutions of higher learning. Where workers are part of teams, shirkers impose costs on others in the team. Thus, fellow team members may not take kindly to inferior performance. Co-workers are often less "understanding" of substandard behavior than supervisors.[12] However, the incentives are again complex; cliques of workers can take advantage of their authority just as supervisors sometimes do. And fear of retaliation can undermine worker/rater systems.

Box G on academic peer review

III. Rewards and Performance Appraisal.

There are obvious reasons for linking the results of performance appraisal with some tangible economic consequence for employees, positive or negative. However, it is a common - but not a universal - practice, to separate the appraisal process from the reward system. Employers may insist that there is a process for performance appraisal and another for rewards. The reason for

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Box G

The Results of Peer Review

As the text notes, peer review is rare in most employment settings. But it is common in academia. Although there are no hard estimates available, it is thought that at major universities about half of the assistant professors who are hired will ultimately be granted tenure through the peer review process. Although some assistant professors who are not granted tenure will leave before the review process commences, most of the half not promoted will have been denied the promotion by the peer review process. Among the half who receive tenure anywhere from a third to half of those will be granted it ahead of "schedule", i.e., before seven years have elapsed.

Source: David B. Kaplan, "Tenure Decisions in Higher Education" in Rosalind M. Schwartz and Geraldine Leshin, eds., EEO Update: Employee Selection and Promotion (Los Angeles: UCLA Institute of Industrial Relations, 1990), p. 6.3.

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this (surprising) separation is linked to fear of exacerbating the misincentives discussed above.

As indicated, supervisors have an incentive to manage highly-paid subordinates, since having high-paid subordinates may tend to boost their own pay. In addition, supervisors will prefer that their subordinates be content with their pay level. Discontented workers could make achievement of the supervisor's production targets difficult, either through turnover, or through low productivity.

Thus, a supervisor might be tempted to pay a premium (out of his/her employer's pocket) to ensure workplace tranquility. This premium might be higher than the employer would find optimal. It is often felt, therefore, that separating the appraisal process from the reward decision will keep the latter more "honest." In addition, employers may want to conduct performance appraisals regularly but not have their employees automatically expect a reward on every occasion of a good rating.

Still, Table 3 has already suggested that a majority of performance appraisal plans are integrated with the pay system. And in any case, simply keeping reference to rewards off the performance appraisal form does not necessarily sever the connection between ratings and rewards. Most firms which use appraisal systems report that they use them as a guide for individual pay adjustments and for promotions, even if the linkage is informal.[13] Although promotion opportunities may be limited and infrequent, many companies have merit pay systems - effectively tied to performance appraisals - which provide the opportunity for regular pay advances. An interesting question is how important performance appraisals are as a source of internal pay advancement within the firm.

i. Alternative Progression Systems.

There are various systems of "wage progression" in use. Under such systems, a rate range - rather than a single wage rate - is established for an occupation. Typically, employees enter the occupation at (or towards) the bottom of the range, and then have an opportunity to work their way to the top. Although the systems vary in detail, there are two basic options for determining the rate of advancement of the individual employee: time (seniority) and/or merit.

A mechanism of advancement by virtue of time or seniority is formula-driven. It is easy to verify whether an employee should receive a pay increase by applying the simple rules of the system; all that is needed is an accurate record of the date of entry into the job. In contrast, a system of pay advances on the basis of merit requires a subjective judgment (performance appraisal) by a management representative.

Table 2 has already shown that performance appraisal is applied to employers for most occupational groups but that it is less common for union workers than for others.[14] Unions and collective bargaining will be discussed in a later chapter. However, it is worth noting at this point that the use of seniority is stronger in the union sector than in the nonunion sector for two basic reasons. The internal union political mechanism tends to be dominated by more senior worker/members who naturally prefer to tilt workplace rules and benefits in their own favor. In addition, there is the already-discussed union motive of limiting employers discretion over pay.

ii. Merit vs. Seniority: An Implicit Contracts Approach.

Although Table 2 reveals a strong employer preference for the idea of using performance appraisal and merit rather than seniority as a guide to pay advancement, there can be a discrepancy between stated preference and actual result. For example, in the public sector, civil service procedures for pay progression are often nominally based on merit. Yet it is frequently the case that so-called merit decisions are routinely made after a designated time on the job has been served by the employee, and that almost all employees are found to be meritorious on a regular basis. Thus, a supposedly merit-based system can easily operate as a seniority system in practice.

Private employers are more likely to insist that their merit plans do, in fact, function on the basis of merit. However, some empirical studies based on internal company data suggest that seniority is often a critical factor, even in the nonunion sector. That is, time on the job shows up as an important variable in determining the pace of pay advanceme[illegible] individual employees.

Exactly why seniority and pay are positively correlated remains a matter of some debate in economic circles. Some researchers argue that the association is a statistical illusion, caused by a process of "job matching." According to this view, those employees who tend to remain with the firm have (unmeasured) characteristics which meet the firm's needs, and their own. Poor matches, in contrast, leave the firm because they are unhappy with their situations - perhaps because they have failed to advance. Or they may be terminated in some cas[illegible] The good matches are rewarded with pay and promotions, cre[illegible]e correlation between pay and seniority. Essentially, the sample of workers at the firm is biased towards good matches as seniority increases.[15]

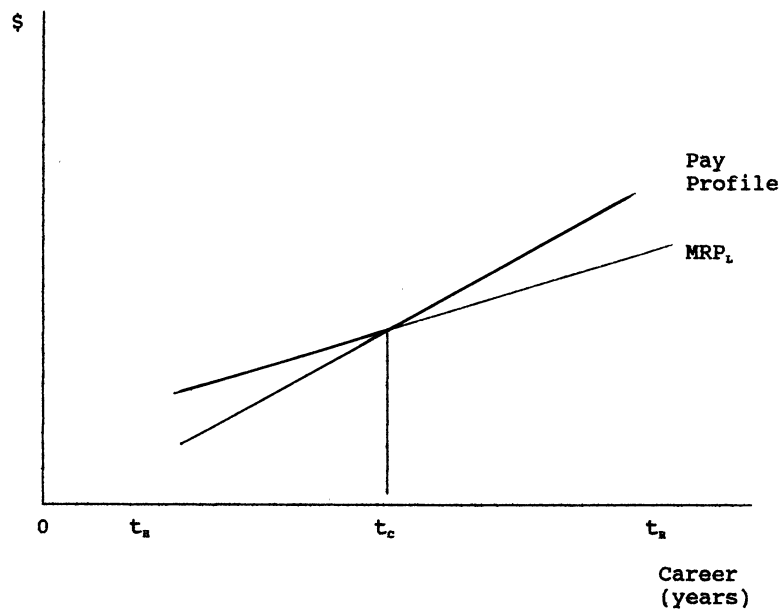
Unfortunately, because this view depends on unmeasured matching characteristics, it is difficult to prove or disprove it. If there is a causal relationship between seniority and pay, implicit contracting provides a possible explanation.[16] It could be that employers reward seniority with pay as a motivational device, paradoxical though that seems.

Under implicit contracting theory, the employee's pay profile and marginal revenue product profile are viewed as separated. That is, implicit contracting departs from the simple economic theory that wage = marginal revenue product of labor (MRP_L) at every moment of time. Instead, under implicit contracting, the employee is paid less than marginal revenue product in the initial phase of his/her career with the employer and more than marginal revenue product towards the end. Thus, the equality of wage and MRP_L is maintained on average (with appropriate adjustment for discounting) over expected career life, but not instantaneously.

Figure 1 provides an illustration of typical pay and MRP_L profiles over a career. At time t_E, the employee enters employment and is paid less than his/her incremental value to the firm (although at a high enough level for the firm to be able to recruit and retain workers). The firm effectively makes an implicit contract with the employee that if his/her performance is satisfactory, pay will gradually be raised so that eventually - by the time of retirement t_R - pay will exceed the level "justified" by productivity. In short, the theory of implicit contracts puts a kind face on the so-called "Peter Principle" (which states that "in a hierarchy every employee tends to rise to his level of incompetence").

Figure 1

Hypothetical Profile of Pay and Marginal Revenue Productivity over Career Life



Various explanations have been forward for such implicit contracts. On the supply side, the pay profile (low at first; high at career's end) is said to accommodate employee "needs" for income, i.e., young workers have few dependents while older ones support families and must make provision for retirement. This argument must be accompanied by a presumed constraint on the ability of employees to save when they are young for later expenses.[17]

Box H on Japanese firms

On the demand side, employers will experience lower turnover costs since employees - once hired - must remain with the firm to gain the eventual rewards of seniority. Young employees will also have an incentive to perform at least at a satisfactory level to avoid being terminated before collecting the reward.[18] And older employees will have a strong incentive to maintain their performance level, since such workers will know that - if terminated - they would have to find work in the outside market where their productivity-based wages would be significantly lower. For this implicit contract system to work, however, there are two requirements: an "honestly" run wage progression (and possibly promotion) system and an employer who remains in business long enough to "honor" the implicit contract.

Box H

Implicit Contracts and Japanese Firms

Larger Japanese firms are noted for their "lifetime" employment practices. On their face, certain aspects of human resource policy at these firms resemble the implicit contracting model depicted on Figure 1. Masahiko Aoki, a student of Japanese corporate organization, argues that the model does apply.

Aoki notes that seniority advancement and lifetime employment are not truly automatic. However, the cost of dismissal to the employee is so high that actual dismissals are seldom observed and the lifetime employment contract thus controls shirking. On the other hand, he admits that it is difficult to sort out the bonding story from increased pay due to on-the-job learning and added human capital. A later chapter will consider the impact of human capital on pay.

Source: Masahiko Aoki, "Toward an Economic Model of the Japanese Firm," Journal of Economic Literature, vol. 28 (March 1990), pp. 1-27, especially pp. 10-13.

iii. Rules and Employer Reputation.

At time t_c on Figure 1, the employee reaches a crossover point in his/her career. After that time, the employee is "overpaid"; before that time, the employee is "underpaid" relative to productivity. Employers would therefore have the temptation to entice job seekers into underpaid, entry-level service with promises of eventual pay progression. But when the employees actually reached time t_c, they would be terminated, preventing worker recoupment of the promised return for loyal service.

Given this problem of moral hazard on the part of the employer, potential employees might be reticent to accept an implicit contract of the type represented on Figure 1 without some assurance that the contract would not be broken. Having formal progression plans - and establishing a reputation for not abusing their discretion - is one way that employers can provide such assurance. If an employer had a merit system in which pay advancements were commonly denied, potential employees might be reluctant to accept employment, upon learning of the firm's poor reputation as a keeper of commitments. And morale problems might develop among current employees who feared that the deals they thought they had made with the firm were being, or were likely to be, dishonored.

The theory of implicit contracting, therefore, suggests that seniority could play an important role in determining pay advancement, whether or not a merit system is used. It also suggests that when layoffs are made, firms may prefer to let junior workers go before seniors, since terminating seniors before retirement age would tend to violate implicit agreements. Or seniors might be offered special retirement incentives to compensate them for early separation from the firm.

Finally, implicit contracting suggests that firms - if unconstrained by legal barriers - would want to establish some kind of mandatory retirement age (say, at t_R). Such an age would avoid having employees "over-recoup" their initial investments made as junior workers. However, for most employees, Congress forbade mandatory retirement after 1986. Hence, firms might instead have an incentive to offer financial retirement inducements, perhaps through pension formulas.[19] Or, they might have an incentive to offer less of an upward-sloping pay profile initially. A later chapter will return to some of these points.

iv. Employer Stability and Corporate Restructuring.

Implicit contracting theory was partly inspired by case studies of actual human resource practices. Observations included the "paternal" employer policies such as "lifetime" employment at major Japanese companies, employment-security policies at certain "progressive" American employers such as Hewlett-Packard, the general social ethos which condemns employers who fire long-service employees, and studies which suggest that older workers have a hard time starting over when they are terminated (due to the existence of career ladders at other potential employers). It is clear, however, that regardless of initial intent, career-oriented commitments of any character are unlikely to be met if the employer ceases to exist before an employee's working life has ended.

Box I on human resource firms and mergers

Employers may cease to exist because market conditions no longer can maintain them profitably in business. Even before actual shutdown occurs, such employers may effectively cease to defer to seniority since maintaining a reputation as a good employer no longer matters. Companies may also cease to exist as independent entities if they are swallowed by, or merged with, other firms. The new owner/operators may not feel constrained by the implicit commitments of their predecessors.

During the 1980s, there was a considerable acceleration of merger activity and corporate restructuring. This instability in the business sector was partly due to changes in antitrust policy, increased international competition, deregulation in some industries, and the severity of the recession in the early years

Box I

Mergers When Human Resources Matter

When firms are acquired or merged with other firms, there is a potential loss of human capital if the acquired employees choose to quit. For some firms, where the assets are mainly physical, this danger may not be a problem for acquirers. But for those firms in which the value of the enterprise is very heavily dependent on the incumbent employees, we might expect that mergers would be more difficult to effect. And indeed, research by Russell Coff confirms this expectation. Using a sample of actual and attempted mergers, he finds that it is indeed more difficult to acquire firms which are "human-asset intensive."

Source: Russell Coff

of the decade. Such volatility must inevitably have an effect on the credence employees can put in corporate human resource policies (including those related to merit systems, progression, and promotion opportunities).

Rapid change in corporate ownership may have the effect of prodding management to greater efficiency; this is often seen as the social function of the "market for corporate control."[20] Presumably, takeovers, mergers, spin-offs, and the like could generate wealth for those undertaking these activities by improving corporate management and efficiency. But it is also possible that such activity can benefit its undertakers by _transferring_ wealth, rather than generating it.[21]

The issue of wealth re-distribution was initially debated when so-called "greenmail" was paid to corporate raiders in the 1980s, effectively transferring stockholder wealth to the raiders. But, since employees are stakeholders in the firm, it is possible that a wealth transfer from employees to new owners could also occur in the case of successful acquisitions. Instances in which wages or benefits are reduced, or other conditions of work deteriorate, _may_ fall into this category. The critical issue is whether the enterprise was viable at the old pay rates and conditions.

For example, suppose a newly de-regulated business finds itself burdened with pay and benefit obligations established during the prior period of regulation and protection. If it faces new-entrant competition at lower rates of pay which would make the firm uncompetitive, new owners may enter the picture and proceed to lower labor standards. But there is not a transfer of wealth from employees to the new owners in this case; rather de-regulation has transferred wealth from employees to consumers. Although employee anger may focus on the new owners, they were simply the instruments and reflection of a change in government policy (de-regulation).

Box J on Continental and Eastern Airlines

Alternatively, if new owners simply renege on past implicit commitment to employees in the absence of a tangible deterioration in the economic conditions facing the firm, higher short run profits may be generated. In such cases, there may be a wealth transfer from employees to new owners. Much depends on the specific circumstances.

Consider first a circumstance in which previous owners - through their managers - adopted human resource policies on compensation and other matters that turned out to be excessively generous from the firm's viewpoint. That is, the extra productivity, loyalty, etc. generated by the policies did not outweigh their costs at the margin even though the firm could nevertheless operate at a reasonable profit. If a change in

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Box J

Restructuring and Redistribution in Airlines

One of the most high-profile cases of corporate restructuring took place in the airline industry as Texas Air, under CEO Frank Lorenzo, absorbed Continental Airlines and later Eastern Airlines. In the case of Continental, employees had enjoyed a "family" style of management prior to deregulation in the late 1970s. After absorbing Continental, Lorenzo used bankruptcy to terminate existing union contracts and effectively converted the carrier to nonunion status by replacing strikers in 1982. Pay and benefits were reduced. The airline returned to bankruptcy in 1990. Lorenzo, who sold his shares in Continental to Scandinavian Airlines System, was sued by creditors for failing to disclose the carrier's financial condition and agreed to pay $5 million (but admitted no wrongdoing) in 1993.

Eastern Airlines, in contrast to Continental, had a history of strained union-management relations, although an attempt at labor-management cooperation was made during the mid-1980s. A 1989-1991 strike after Eastern was taken over by Texas Air in 1986 also led to striker replacement. Eastern eventually went out of business entirely. Allegations in bankruptcy court suggested that Eastern assets were being drained off into Texas Air, and Lorenzo was eventually removed from the management of Eastern by the court and replaced by a trustee.

Lorenzo subsequently left Texas Air (by then called Continental Holdings) after receiving about $30 million for his shares. So strong were feelings against him that his plans to start a new, low-cost carrier in 1993 were actively opposed in Congress. One journalist concluded:

> "In the end, the sorry saga of Lorenzo and Eastern Airlines produced no winners. He destroyed one of the country's major airlines in a futile attempt to get his way. An union members lost their livelihoods in an equally futile effort to stop him."

Source: Various articles appearing in the <u>Daily Labor Report</u>. The quote is from Aaron Bernstein, <u>Grounded: Frank Lorenzo and the Destruction of Eastern Airlines</u> (New York: Touchstone, 1991), p. 252.

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ownership results in a take-away of the policies, there is a simple wealth transfer from employees to the new owners.

If, however, the previous human resource policies - though seemingly generous - were optimal, a shift toward reduced pay and conditions might still generate short run accounting profits. In the long term, it might be argued, the external valuation of the firm should be lower - even if short run accounting profits increase - because of the departure from optimal human resource management practice. The situation is analogous to a firm which generates short-term accounting profits by neglecting optimal maintenance of equipment.

Economic theory suggests that external evaluators - those buying and selling the company's shares in the case of a publicly-traded firm - would see through the "veil" of accounting data. In the case of the maintenance deferral, they would realize that the firm was accelerating actual physical capital depreciation in a non-optimal fashion. And in the case of the deterioration in pay and conditions for employees, they would realize the firm was non-optimally depreciating its stock of human capital. But given information costs - and the difficulty of determining precisely the optimal level of maintenance expenditures or human resource generosity - the external market may not always pierce the accounting veil. Still the market does exert some discipline and it does not appear that mergers are generally based on putting employees at a disadvantage.[22]

Where collective bargaining is involved in setting the firm's human resource management policies, shifts in bargaining power can lead to transfers of wealth back and forth between employees and owners. For a variety of reasons, discussed in a later chapter, employer bargaining power increased in the 1980s. Sometimes changes in management, which accompanied restructuring, were the vehicle through which the increase in employer bargaining power was expressed. New management came in and demanded - and often received - wage, benefit, and workrule concessions from the union or unions involved.[23]

In any case, if the volatility of corporate ownership and control which developed in the 1980s continues throughout the 1990s, changes in the implicit contracts offered to (or accepted by) workers in the future are likely to occur. Lack of trust in, or ability to make, forward employment contracts would result in the pay profile of Figure 1 rotating clockwise towards the MRP_L line. In effect, employees would be paid what they are worth, <u>when</u> they are worth it. Performance appraisal and merit rewards would continue, but the rewards might be weighted towards current year bonuses rather than "permanent" upward shifts in an individual employee's pay rate.

Some symptoms of a shift in this direction developed in the 1980s as the use of temporary employees increased. Temporary employees - whether hired through a personnel supply agency or directly by the employer - typically are employed under "spot" contracts. That is, they are paid for the work they do, when they do it, and with no commitment by either party to a continuing employment relationship. Employers who wish to maintain forward implicit contracts with a core group of employees may find it desirable, in a volatile world, to rely more heavily on such spot arrangements with a second tier of temporary employees than has been the practice in the past. The temporaries can absorb the peaks and valleys of production, thereby insulating the core group.[24]

IV. The Cost of Merit and Promotion Systems.

Given the importance of labor costs to most firms, it is essential that human resource professionals develop the ability to project such expenses. Unfortunately, the existence of merit pay (and, to some extent, promotion) systems seems to be a source of endless confusion for those charged with such costing. The costs of merit are often overstated by the very professionals who should know better.

It is important to start with the observation that in a steady state, i.e., a situation in which the firm maintains its employment level over a long period of time in the face of normal turnover, a merit system should not cost anything. This surprising conclusion holds despite the fact that individual employees under the system are receiving regular merit pay increases. Although the case of promotions is not explicitly elaborated below, the reader will quickly see that the issues of merit awards and promotions are closely related.

i. A Numerical Example.

Figure 2 presents a hypothetical example of a job with a rate range spread between $12/hour and $16/hour in five equal steps. Employees enter the occupation in step 1 ($12) and progress annually to the next step. (A seniority-based pay system is being assumed for pedagogical purposes, but there will be no difference between merit and time advancement if, under the former, employees progress "on average" one step per year). In year 1, employees A, B, C, D, and E are spread over the five steps. The following year, employee E retires and a new replacement - employee F - is hired as a replacement. Also, A, B, C, and D are advanced one step.

It can be easily seen that the total hourly payroll will be the same in year 1 and in year 2 ($70 = $12 + $13 + $14 + $15 + $16) as will the average hourly wage ($14 = $70/5). Although the four employees who remain with the firm in year 2 (A, B, C, and D) each get $1 raises ($4 in total), the replacement of E at $16 by

Figure 2

Hypothetical Example of Gross and Net Costs of Merit Pay

	Hourly Wage	Employee Distribution Year 1	Year 2	Incremental Cost of Merit Pay Adjustments, Year 1 to Year 2: Gross Cost Basis	Net Cost Basis
Entry Step 1	$12	A	F		-$4 (a)
Step 2	$13	B	A	$1	$1
Step 3	$14	C	B	$1	$1
Step 4	$15	D	C	$1	$1
Top Step 5	$16	E	D	$1	$1
Total hourly payroll	$70				
Mean hourly payroll	$14				
Increment to payroll				$4	$0
Increment/ payroll				5.7%	0%

(a) Difference between wage of newly-hired employee F and departing employee E.

F at \$12 saves the firm an equivalent amount (-\$4 = \$12 - \$16). The net cost of the merit system is, therefore, zero in a steady-state situation.

Of course, at any point in time, an employer will probably not be in precisely the steady state. However, the basic principle holds. What determines the net costs of merit is the change (if any) in the proportions of workers at each step. In the steady state, the proportions remain unaltered from year to year. But in the real world, there could be modest shifts in the proportions depending on surges in new hiring (which increase the "weight" of the lower step), hiring freezes (which decrease the entry weight), the age distribution of employees (which will determine how long they stay in the top step before retiring), etc. As long as there is a clear distinction made between net and gross costs, none of these departures from the steady state pose analytical problems.

ii. Gross vs. Net Confusion.

Figure 2's arithmetic is so simple that the reader may have difficulty understanding why confusion should ever exist. Nevertheless, there is ample evidence that merit pay systems are a source of confusion. As an example, during the anti-inflation wage controls program of the Nixon administration, the rules proposed for costing merit plans provoked a substantial controversy. Yet the various participants in the dispute, including the rule makers themselves, seemed to have great difficulty understanding the difference between gross and net costs.[25]

A second bit of evidence comes from the responses of human resource specialists to various private surveys concerning the wage increases they have awarded or are planning to award. Compared with other data on wage trends, the responses appear consistently too high. This upward bias suggests that respondents have trouble differentiating the net and gross costs of merit, and report the latter when they should use the former.[26]

On Figure 2, the gross cost of merit is $4, the equivalent of 5.7% of payroll. Thus, unless the "savings" of replacing expensive employee E with cheap employee F are recognized, it might (erroneously) appear that having a merit system raises average pay by 5.7%. This arbitrary gross amount, of course, simply results from the assumptions of the example. A more typical annual gross cost of merit pay in real world plans is 1-2% of payroll. Table 4, for example, shows the result of a survey in which the gross and net costs of merit are made explicit. For the all-industry category, the gap between the two methods of costing was 1.2% in 1992.

However, regardless of the amount, the gross cost is not appropriate for judging the impact on employer expenditures. Only

Table 4

Merit Budgets vs. Rate-Range Increases: 1992
(Non-Exempt Employees)

	Merit Budget Adjustment (a)	Rate-Range Adjustment (b)	Difference
All Industries	4.7%	3.5%	1.2%
Commercial Banking	4.5	2.0	2.5
Diversified Services	4.9	3.5	1.4
Insurance	5.0	3.5	1.5
Manufacturing	4.5	3.5	2.0
Trade	4.0	3.0	1.0
Utilities	4.5	3.6	.9

(a) Denoted "salary increase budget" in original document.
(b) Denoted "salary structure adjustment" in original document.

Source: Conference Board, press release no. 3960, July 30, 1992.

the net amount (zero in the steady state example of Figure 2) is appropriate.

There appear to be two reasons for the common confusion between net and gross merit costs. The first has to do with the problem of supervisor misincentives discussed earlier in this chapter. And the second is related to the propensity of firms to mix merit pay with general, across-the-board pay adjustments.

iii. Merit Budgets and Misincentives.

The merit plan of Figure 2 is tightly controlled with "normal" annual steps carefully delineated. However, even in such a system considerable supervisory discretion might be allowed. For example, a supervisor might be allowed to decide that a particularly meritorious employee could jump a step, e.g., move from step 3 to step 5. Since there are pressures on supervisors - in the absence of other constraints - to give out merit increases, such discretion might cause the supervisor to raise the average pay level from step 3 in year 1 to, say, step 4 in year 2.

For example, suppose employee A were jumped to step 4 ($15) and B and C were boosted to step 5 ($16). Suppose, as in the previous example, that D advanced normally to step 5, E retired, and F entered employment at step 1 ($12). The average wage in the unit would rise from $14, the equivalent of step 3, to $15, the equivalent of step 4. Such an increase would represent a rise in <u>net</u> costs of $5 or 7.1% of payroll as shown on Figure 3 (including the $4 savings of replacing E with F). Gross costs would rise by $9 or 12.9% of payroll.

To guard against profligate awards of merit increases, firms will often ration supervisors through the imposition of "merit budgets." A supervisor in the example just cited might be constrained by assignment of a merit budget of $4. Within that budget, the supervisor might exercise discretion by awarding more to one candidate than another. For example, employee A might receive a $2 increases, B and C a $1 increase each, and D might be bypassed. Or the awards could be spread evenly as in Figure 2. Either way, the $4 merit budget constraint holds the net cost of the merit system to zero, given the $4 turnover savings.

However, the accounting artifact of $4 can easily become a source of confusion. A supervisor who "spends" (allocates) a $4 merit budget might believe that he or she had raised pay by 5.7%, since the merit budget is presented on a gross basis. And, as noted, this confusion is surprisingly common.

iv. Mixing of Merit and Other Pay Adjustments.

Compounding the confusion created by merit budgets is the temptation to mix merit pay and across-the-board pay adjustments.

Figure 3

Hypothetical Example of Gross and Net Costs of Merit Pay with Supervisory Discretion

	Hourly Wage	Employee Distribution Year 1	Year 2	Incremental Cost of Merit Pay Adjustments, Year 1 to Year 2: Gross Cost Basis	Net Cost Basis
Entry Step 1	$12	A	F		-$4 (a)
Step 2	$13	B			
Step 3	$14	C			
Step 4	$15	D	A	$3	$3
Top Step 5	$16	E	B,C,D	$3+$2+$1	$3+$2+$1
Total hourly payroll	$70				
Mean hourly payroll	$14				
Increment to payroll				$9	$5
Increment/ payroll				12.9%	7.1%

(a) Difference between wage of newly-hired employee F and departing employee E.

In the example just cited, the rate range for the job ($12 to $16) was unchanged from year 1 to year 2. However, external market wages typically rise from year to year, especially during periods of general inflation. Thus, the firm might feel the need to raise the rate range by, say, 40¢, thus increasing the steps to $12.40, $13.40, etc. Spread over the five steps, the net cost would be $2, i.e., 40¢ x 5, or 2.9% of payroll.

Often, nonunion employers prefer to insist that <u>all</u> their pay increases are based on merit. Sometimes this assertion is maintained even during periods of inflation when there is clearly an across-the-board market factor included in wage decisions. In a period of generally rising wages, such an employer might raise the top and bottom step in Figure 2 by 40¢ and give the supervisor a $6 budget to award increases. Implicitly, $2 of the $6 is for inflation and $4 is for merit. However, the $2 is part of the supervisor's discretionary adjustment fund and is not nominally being awarded to all workers.

Unfortunately, by throwing both types of monies into the same pot, and calling the entire sum a "merit budget," ambiguity is inevitably created. The average wage is raised by 2.9%. But the supervisor has a (gross) budget for increases of $6, creating the misleading appearance of a 8.6% average increase ($6/$70).

The impact of inflation and other factors on internal wage policies will be discussed more fully in a later chapter. However, the examples just reviewed indicate that periods of inflation have a cost beyond the nominal dollars expended for labor. Inflationary periods have the effect of distorting merit systems which do not clearly separate the amount being awarded for merit from that which reflects the upward trend in market wages. Of course, these costs could be minimized by a more careful (and realistic) segregation of merit pay decisions from other forms of pay adjustment.[27]

V. Conclusions.

The evaluation of performance and pay turns out to be a complex matter. While the general notion that better performers should be rewarded is not controversial, the actual workplace implementation of that principle faces many obstacles. Good performance must be evaluated by someone, typically a supervisor, who acts as an agent for the employer. Yet, it is difficult in practice for the principal (employer) to create the incentives necessary for the agent to act in the best interests of the firm.

Linking the evaluations produced by performance appraisals to merit pay and other forms of advancement is also a complicated process. While employers (absent union pressure) often eschew seniority as a criterion for wage progression and advancement, there are reasons to suspect that seniority is actually an important consideration. Implicit contract theory suggests that pay and productivity may not be tied tightly together, except over an extended horizon. However, changes in the economy in the 1980s may force a closer current tie between individual performance and pay.

Finally, the use of merit pay systems seems to create confusion about the trend in labor costs. The gross costs of a merit system exceed its net costs, because the former excludes turnover savings. But control systems, designed to limit supervisory discretion, and external inflation can blur the important gross/net distinction.

EXERCISE FOR THE STUDENT

Obtain a sample of performance appraisal forms of the type shown in Box F of this chapter from employers in your area. Evaluate these forms with regard to the degree of useful information they are likely to produce.

KEY QUESTIONS AND PHRASES

1. Can alternative performance rater systems - such as peer reviews - provide more accurate information on performance appraisal than the more common rating-by-supervisors system?

2. What should be the role of human resource departments and line managers in determining monetary rewards and promotions for employees?

3. What should be the importance of seniority in determining pay?

4. What impact may corporate restructuring have on the pay-seniority profile?

5. How can merit systems be better structured to deal with periods of inflation?

6. What is the importance of the distinction between the gross and net costs of merit programs?

Phrases:

behaviorally-anchored rating systems, employee attitude surveys, grievances, gross vs. net cost of merit increases, implicit contracting, mandatory retirement, piece rates, principal and agents theory, sexual harassment, supervisor, wage progression systems.

FOOTNOTES

1. As in the case of most such surveys, respondents tend to come from larger firms. Small firms are more likely to have informal performance appraisal methods than large ones.

2. Bureau of National Affairs, Inc., Performance Appraisal Programs, PPF survey no. 135 (Washington: BNA, 1983), p. 4.

3. Some employees may be positively motivated by a complimentary review, even if it does not produce an automatic financial reward.

4. Collective bargaining arrangements are discussed in later chapters. Private-sector supervisors after 1947 could form unions if they wish, but they had (and still have) little or no legal protection for such activity. That is, they can be fired for being union members or for attempting to form unions. However, some statutes covering public-sector employees give supervisors some protected rights to unionize.

5. Sanford M. Jacoby, Employing Bureaucracy: Managers, Unions and the Transformation of Work in American Industry: 1900-1945 (New York: Columbia University Press, 1985), chapter 1.

6. A "tight" labor market, as noted in an earlier chapter, is one in which unemployment is very low and vacancies are plentiful, i.e., it is one which benefits the employee. The opposite situation - when unemployment is high and jobs are scarce - is known as a "loose" labor market. These terms are often confused in the media and in common parlance.

7. Keeping the rating secret from the employee would subvert the notion that the evaluation will induce improvements in behavior. An employee cannot be expected to respond to an evaluation of which he or she is not aware.

8. Robert L. Heneman, Merit Pay: Linking Pay Increases to Performance Ratings (New York: Addison-Wesley, 1992), pp. 187-192.

9. Fred K. Foulkes, Personnel Policies in Large Nonunion Companies (Englewood Cliffs, N.J.: Prentice-Hall, 1980), chapter 15; Industrial Relations Department, National Association of Manufacturers, Settling Complaints in the Union-Free Environment (Washington: NAM, 1982); Ronald Berenbeim, Nonunion Complaint Systems: A Corporate Appraisal (New York: The Conference Board, 1980); Bureau of National Affairs, Inc., Policies for Unorganized Employees, PPF Survey No. 125 (Washington: BNA, 1979). Employee complaints and systems for handling them are discussed in a later chapter.

10. The question of the optimal size of firms - which cannot be discussed further here - is obviously linked to the trade off between efficiencies of centralized control and diseconomies of hierarchical delegation of authority.

11. George T. Milkovich and Alexandra K. Wigdor, eds., with Renae F. Broderick and Anne S. Mavor, Pay for Performance: Evaluating Performance Appraisal and Merit Pay (Washington: National Academy Press, 1991), chapter 4.

12. Professors often discover that student teaching assistants are harsher graders than the professors themselves would be.

13. Bureau of National Affairs, Inc., Performance Appraisal Programs, PPF survey no. 135 (Washington: BNA, 1983), p. 12.

14. See also Bureau of National Affairs, Inc., Wage & Salary Administration, PPF survey no. 131 (Washington: BNA, 1981), pp. 10, 13.

15. See Katherine G. Abraham and Henry S. Farber, "Job Duration, Seniority, and Earnings," American Economic Review, vol. 77 (June 1987), pp. 278-297.

16. There are many facets of implicit contracting theory. A review can be found in Sherwin Rosen, "Implicit Contracts: A Survey," Journal of Economic Literature, vol. 23 (September 1985), pp. 1144-1175; and in Donald O. Parsons, "The Employment Relationship: Job Attachment, Work Effort, and the Nature of Contracts" in Orley Ashenfelter and Richard Layard, eds., Handbook of Labor Economics, volume II (New York: North-Holland, 1986), pp. 789-848, especially p. 809.

17. Such arguments are sometimes made in connection with public policies which provide for retirement incomes, such as Social Security, or tax-favored treatment for pension plans. It is argued that individuals are shortsighted and will not on their own provide for later income needs. Of course, if young employees are shortsighted, they might not look kindly on an employer which cut pay now in exchange for more pay later.

18. This approach is part of the "efficiency wage" model discussed in a later chapter.

19. In principle, the worker would not retire unless the firm compensated him/her for the discounted value of all potential future "overpayment." But, if that is the price for retirement, the firm would not gain any cost saving. Nevertheless, since workers cannot be sure of their health or life expectancy, and since they are likely to be risk-averse, an offer of a financial inducement of less expected value than the stream of future overpayments might still produce a retirement.

20. U.S. President, Economic Report of the President, February 1985 (Washington: GPO, 1985), pp. 187-216, presents a standard economic appraisal of this activity.

21. Much debate over this issue arose in the 1980s. A symposium concerning economic research in the field of corporate takeovers appears in Journal of Economic Perspectives, vol. 2 (Winter 1988), pp. 3-82.

22. One study of mergers found mixed results on wages and employment. Research in this area is in a preliminary stage. However, it is clear that not all mergers have the same results and in some cases it appears that wage decreases are associated with employment gains. See Charles Brown and James L. Medoff, "The Impact of Firm Acquisitions on Labor," working paper no. 2273, National Bureau of Economic Research, June 1987.

23. Critics of corporate restructuring have argued that it is a device to "discipline" labor. See, for example, Barry Bluestone, "Deindustrialization and Unemployment in America" in Paul D. Staudohar and Holly E. Brown, eds., Deindustrialization and Plant Closure (Lexington, Mass.: Lexington Books, 1986), pp. 3-15, especially pp. 12-14.

24. Katharine G. Abraham, "Restructuring the Employment Relationship: The Growth of Market-Mediated Work Arrangements" in Katharine G. Abraham and Robert McKersie, eds., New Developments in the Labor Market: Toward a New Institutional Paradigm (Cambridge, Mass.: MIT Press, 1990), chapter 4.

25. Arnold R. Weber and Daniel J.B. Mitchell, The Pay Board's Progress: Wage Controls in Phase II (Washington: Brookings Institution, 1978), pp. 89-93.

26. Sanford M. Jacoby and Daniel J.B. Mitchell, "Alternative Sources of Labor Market Data" in Barbara D. Dennis, ed., Proceedings of the Thirty-Eighth Annual Meeting, Industrial Relations Research Association, December 28-30, 1985 (Madison, Wisc.: IRRA, 1986), pp. 42-49, especially pp. 46-48.

27. Economists often have difficulty explaining, in terms of standard theory, why inflation is a problem. In principle, if all prices rise at the same rate, and the rate of inflation is recognized, no one should be made any better or worse off. However, it is sometimes argued that inflation causes confusion among actors in the economic system. General price (and wage) increases are perceived incorrectly as relative price (wage) increases. The merit problem regarding inflation is an example of such confusion.