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Federal Merit Pay: A Longitudinal Analysis

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Pay for performance has long been a goal of federal personnel policy, but in practice few civil servants have been denied their periodic salary increases, regardless of their performance.¹ Merit pay, as mandated by the Civil Service Reform Act of 1978 (CSRA), bases the compensation of grades 13-15 supervisors and management officials on their rated performance.

Merit pay has probably been the most complex of the CSRA's provisions for two reasons. First, the various payout mechanisms had to be established. Such questions as the appropriate size of pay pools and whether managers at the various grades/steps should receive identical salary increases for identical performance ratings had to be determined before payouts could be made. The difficulties of arriving at satisfactory solutions to these problems are reflected in the timing of OPM's comprehensive merit pay guidelines, released in draft in February 1981,² two and one-half years after the passage of CSRA, and in the last-minute General Accounting Office (GAO) intervention to alter the payout formula.³

Second, merit pay was implemented concurrently with the new, objectives-based performance appraisal system on which merit payouts would be based. This new performance appraisal system is significantly different from the trait-based systems used to rate most federal managers prior to the change. Now the elements, or components, of each job need to be specified and objective indicators of relative performance on each element must be developed. Ratings on these individualized "contracts" are then combined for each manager so that the performance of all the managers in a pay pool can be rated for merit pay purposes. Although there were objections to tying pay to a new, untested, performance appraisal system,⁴ virtually every agency in the federal government was required by the pressures of statutory deadlines to implement concurrently the new performance appraisal and merit pay systems for managers.

This paper assesses the effectiveness of the new merit pay system after the initial government-wide payout in October 1981. Applying a longitudinal research design to the motivational premises on which merit pay is based, we evaluate the early reactions of employees to merit pay. We conclude with a discussion of some of the important contingencies affecting the motivational effectiveness of merit pay.

■ Merit pay for the federal employees is a controversial personnel program that bases compensation of grades 13-15 supervisors and managers on their rated performance. Under the Civil Service Reform Act of 1978, merit pay was implemented concurrently with a new, untested, objectives-based performance appraisal system. The motivational model of behavior on which merit pay is based is used here to analyze data from five federal agencies. The results indicate that, as perceived by affected employees, the new performance appraisal system does not effectively measure performance and therefore does not serve the purpose of the merit pay program to link pay to performance. Other implementation contingencies, such as the pay cap on managerial salaries, uncertainties associated with the presidential transition, and an eleventh-hour change in the merit pay formula, also appear to have contributed to the perceived ineffectiveness of merit pay. From a policy perspective, the results suggest that performance appraisal systems need to be improved to accomplish the motivational objectives of merit pay. Furthermore, there is no indication that the merit pay experiment at grades 13-15 has been sufficiently successful to proceed with plans to include employees in Grades 1-12.

The Theory Behind Merit Pay

The merit pay provisions of CSRA are based on a widely accepted perspective on motivation drawn from Vroom's expectancy theory.⁵ In its simplified form, the theory posits that if individuals expect to receive a valued reward for high performance, they are more likely to strive for this level of performance than if there were no "pay off." Federal merit pay is expected to increase effort and, therefore, performance by changing the probability that performance will lead to the outcome (salary increase) that is assumed to be positively

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valued by most managers. Therefore, the merit pay initiatives of CSRA are expected to result in higher overall managerial performance since many, if not all, federal managers will see more benefit in striving for high performance under this program than under the previous compensation system.

Although few would argue with the general proposition that pay-for-performance should increase performance, Deci⁶ has criticized motivation systems that rely on externally mediated rewards, i.e., rewards such as money administered by someone other than the individual. He argues that the results of his laboratory experiments indicate that managers who are working on intrinsically interesting jobs will lose interest in them or that extrinsic rewards will motivate behavior at the expense of intrinsic motivation. Others, however, have argued that Deci's results do not appear to support his work motivation conclusions, and they provide evidence to support the traditional theory that rewards are additive, with those actions that lead to the greatest rewards most likely to be repeated.⁷

Unlike Deci, most behavioral scientists believe in the merit pay principle and attribute the frequent failures of merit pay to inadequacies in its implementation. In his classic review of pay research, Meyer⁸ concluded that merit pay systems fail because managers actually make relatively small salary discriminations between subordinates. Furthermore, Meyer argued that the results of merit pay decisions are likely to be a threat to most managers' self-esteem. For example, he found that 90 percent of the managers at General Electric rated themselves as above average. "The effects of the actual pay increases on motivation are likely to be more negative than positive. The majority of the people feel discriminated against because, obviously, management does not recognize their true worth."⁹ Other implementation difficulties, such as lack of trust between supervisors and subordinates¹⁰ and conflicting reward schedules,¹¹ have been blamed for the failures of merit pay for managers in private sector firms.

The performance ratings on which payments are based have also been recognized as important factors in implementation. Each of the leading compensation texts takes pains to demonstrate the importance of accurate performance measurement as a basis for merit pay.¹² Latham¹³ has argued that goal-setting approaches to managerial jobs work less well than for more routine blue-collar or clerical jobs because managerial jobs are more complex, with more need to adapt to changing priorities, and so more difficult to measure objectively.

Although we possess some research evidence about the application of merit pay systems in the private sector, there is generally no comparable data for the federal sector. Two exceptions are Rainey's study of incentives in business and government and a recent comptroller general's report on merit pay in the U.S. Postal Service.¹⁴ In a comparison of perceptions of incentives in business and government (involving state and federal middle managers), Rainey argued that it may be more useful for public organizations to stress improvements of career development and performance evaluation and

measurement than of managerial discretion over pay decisions. He concluded that managerial discretion over pay would create as many problems as it solved.

The comptroller general study concluded that the Postal Service program, initiated in 1972, could be improved because appraisals have not always been accurate and the allocation of merit increases has detracted from the recognition given high performers. Previous evaluations of CSRA merit pay systems, especially those based on the eight agencies which implemented merit pay before the statutory deadline of October 1, 1981, have focused on characteristics of the payouts¹⁵ or implementation process,¹⁶ but not on merit pay as a motivational program.

The present study reports evidence on managerial motivation before and after implementation of merit pay in five federal agencies. Since the purpose of merit pay is to change managerial motivation, we will want to know whether or not it makes a difference in the motivation of a wide cross-section of federal managers. Using the motivational model on which merit pay is based to direct our inquiry, we seek answers to three questions:

- Do federal managers value pay increases?
- Are federal managers likely to expect effort to lead to high rated performance under the objectives-based appraisal systems?
- Are federal managers more likely to expect good performance to lead to increased pay under merit pay than under the previous time-in-grade compensation program?

Methods

Research Design

The study used a time-series design, involving repeated measurements of employee attitudes at fixed intervals, to assess the results of the merit pay intervention. Agencies were required to implement the new, objectives-based appraisal systems no later than October 1, 1980 and to award pay according to the results of these appraisals beginning in October 1981. Surveys were conducted at four points to correspond with significant stages in the implementation process:

June 1980—The first pre-treatment survey preceded the implementation of the appraisal systems that would be used to evaluate performance for purposes of allocating merit pay awards (pre-performance appraisal).

December 1980—The second survey was conducted after introduction of the new performance appraisal systems in October 1980 (post-performance appraisal).

June 1981—The third survey was taken near the end of the appraisal period, by which time appraisal feedback and merit pay "dry runs" had been conducted (pre-merit pay award).

December 1981—The fourth survey was conducted after merit pay awards were made in October 1981 (post-merit pay award).

By tracking employee reaction to performance appraisal and merit pay from the pretest in June 1980 to the post-test in December 1981, we could identify whether the interventions were having the anticipated effects on employees. In terms of the motivational model underlying merit pay, we expected to find that pay was a valued reward throughout the period, that effort would be perceived as leading to high rated performance after introduction of the new, objectives-based appraisal system, and that good performance would be perceived as being rewarded with increased pay after the merit pay awards.

Research sites and sample. The research sites consisted of organizational subunits in five diverse agencies of the federal government, representing civilian and defense agencies and technical and non-technical missions: the Transportation and Public Utilities Service (TPUS) of the General Services Administration, Washington, D.C., the Naval Ship Weapon Systems Engineering Station (NSWSES) in Port Hueneme, California; NASA-Ames Research Center, Moffett Field, California; twenty-one Social Security Administration (SSA) offices in the Southern California area; both the National and California State offices of the Department of Agriculture Farmers Home Administration (FmHA) and Soil Conservation Service (SCS); and the California office of the Agricultural Stabilization and Conservation Service (ASCS).¹⁷

Federal Employee Survey (FES). Two forms of this instrument were developed, one for employees GS-13 (or equivalent) and above and a second for GS-12 (or equivalent) and below. The present study reports data only from grade 13 to 15 managers and supervisors. The instruments were pretested on a group of 30 federal employees from two different agencies prior to field administration. The final versions of the surveys required from 30 to 45 minutes to complete. Employees were notified by personal letter about the date, time, and location of the questionnaire administration.¹⁸

Semi-structured interviews. Interviews were conducted with a stratified, random sample of employees, managers, and union representatives during each quarterly site visit. The format of the interview included structured and open-ended questions. The interviews included questions about major CSRA initiatives as well as potentially significant issues that arose during the course of the study (e.g., the hiring freeze, the presidential transition). These interviews were used primarily to aid in the interpretation of the FES results.

Archival data. As a supplement to the employee attitude and interview data, archival data were collected on organizational performance and other agency activities. Among the documents obtained were collective bargaining agreements, annual budget/expenditure reports, and, when possible, work volume, labor productivity, unit costs, and quality indicators.

Value of Pay as a Reward

Managerial positions offer many rewards—salary, challenging work, promotions, status, and the satisfaction of making a contribution to a community or to national defense are just a few examples. If these other rewards are more important than pay to federal managers, they are not contingent on high performance, we might expect merit pay to have little resultant effect on performance motivation.

During their first merit pay appraisal period, . . . managers seemed less likely to expect more pay for higher performance than they did under the previous compensation program.

In Table 1, we see how merit pay managers rated the various rewards available to them during each of the four periods studied. In all four periods, “challenging work responsibilities” and “retirement benefits” were ranked first and second, respectively. In June 1980 (before performance appraisals for merit pay were introduced) and December 1981 (after the first merit pay awards), merit pay managers ranked these rewards, together with “friendliness of the people you work with” and “location,” as more important than their pay as reasons for remaining in their positions. Unlike pay, the other four are geared to maintaining an employee’s membership and are not awarded only to high performers. Retirement benefits, for instance, are not contingent on outstanding performance, only satisfactory performance and tenure.

Manager perceptions of the different rewards fluctuated during the 18-month period. The importance of two rewards, friendliness of co-workers and job security, declined significantly between December 1980 and June 1981. The results for these rewards are probably a reflection of actions taken by the Reagan administration to freeze hiring and to reduce the size of the federal work force beginning in early 1981. The decline in the importance of challenging work responsibilities, which initially occurred in December 1980 and has remained at the lower level since then, probably represents the uncertainty and changes in direction which the managers of federal programs have experienced since the November 1980 presidential election.¹⁹ The change in the importance of pay coincides with President Reagan’s decision to limit comparability increases in October 1981 to 4.8 percent, rather than 15.1 percent, which would have provided full comparability with similar private sector jobs.

None of the fluctuations above appears to be the result of merit pay, *per se*, but of concurrent environmental events. In fact, although the importance of pay declined significantly between June 1981 and December 1981, employees continued to express general agreement with the pay-for-performance concept, as reflected in

the results in Figure 1. After the introduction of merit pay, their reported willingness to work harder in return for contingent pay increased appreciably. Thus, it appears that while the importance of pay may have declined, it remained sufficiently valued to motivate increased effort.

Effect of Effort on Rated Performance

Since merit pay is contingent upon rated performance, merit pay's efficacy depends on whether or not federal managers in our agencies expect effort to lead to highly rated performance under the objectives-based appraisal systems. Figure 2 presents managers' assessments of the extent to which effort led to high rated performance between June 1980 and December 1981. Over this period, managers became *less* likely to agree that their new "appraisal process is effective" or "helps me to improve my job performance." In contrast, they are

more certain of the standards used to evaluate their performance and find it less difficult to document differences in performance among managers. These managers have a clearer understanding of the criteria on which they will be judged, but apparently feel these criteria are not the best ones to promote improved performance or agency effectiveness.

This finding has important implications for merit pay. The merit pay program itself is expected to increase the subjective probability that performance will lead to a valued outcome, yet if the objectives-based performance appraisal system implemented concurrently with merit pay results in a *reduced* expectation that effort will lead to increased rated performance, overall motivation will remain the same or be reduced.

Pay-Performance Contingency

In this section, we want to examine whether federal managers are more likely to expect good performance to

TABLE 1
Merit Pay Managers' Reports of the Importance of Organizational Rewards

| Questionnaire Item ^a | Mean Response | | | | T-test Probability ^b | | | |
|--|--------------------------|-------------|-------------|--------------|---------------------------------|----------------------|---------------------|----------------------|
| | June 1980 | Dec. 1980 | June 1981 | Dec. 1981 | June 1980- Dec. 1980 | Dec. 1980- June 1981 | June 1981 Dec. 1981 | June 1980- Dec. 1981 |
| | N=153 | N=186 | N=184 | N=135 | | | | |
| How important are each of the following factors in your decision to remain in your present position? | | | | | | | | |
| pay | 3.82 (5) ^c | 3.82 (4) | 3.84 (3) | 3.69 (5) | .472 | .381 | .043** | .081* |
| challenging work responsibilities | 4.54 (1) | 4.37 (1) | 4.31 (1) | 4.31* (1) | .005*** | .199 | .480 | .001*** |
| friendliness of the people you work with | 3.95 (3) | 3.87 (3) | 3.76 (5) | 3.87 (3) | .141 | .095* | .107 | .151 |
| fringe benefits | 3.55 (8) | 3.49 (8) | 3.49 (8) | 3.48 (8) | .266 | .475 | .454 | .235 |
| promotional opportunities | 3.71 (6) | 3.58 (7) | 3.56 (7) | 3.55 (7) | .133 | .426 | .475 | .107 |
| job security | 3.61 (7) | 3.72 (6) | 3.58 (6) | 3.65 (6) | .145 | .077* | .236 | .350 |
| opportunity for public service | 3.18 (9) | 3.11 (9) | 3.01 (9) | 3.15 (9) | .280 | .181 | .117 | .418 |
| retirement benefits | 4.05 (2) | 4.00 (2) | 3.92 (2) | 3.98 (2) | .314 | .205 | .268 | .270 |
| location | 3.86 (4) | 3.80 (5) | 3.78 (4) | 3.84 (4) | .310 | .439 | .335 | .421 |

^a Responses are on a Likert-type scale of 1-5 with 1 = not at all to 5 = a great deal.

^b The figures reported indicate the probability that the difference between the means of the two samples cannot be due to chance alone. The closer the t-test probability is to 1.0, the more likely the difference between the means could have occurred by chance. The closer the probability is to 0, the less likely the difference occurred by chance. One-tailed tests were used and the pooled variance estimate probability is reported.

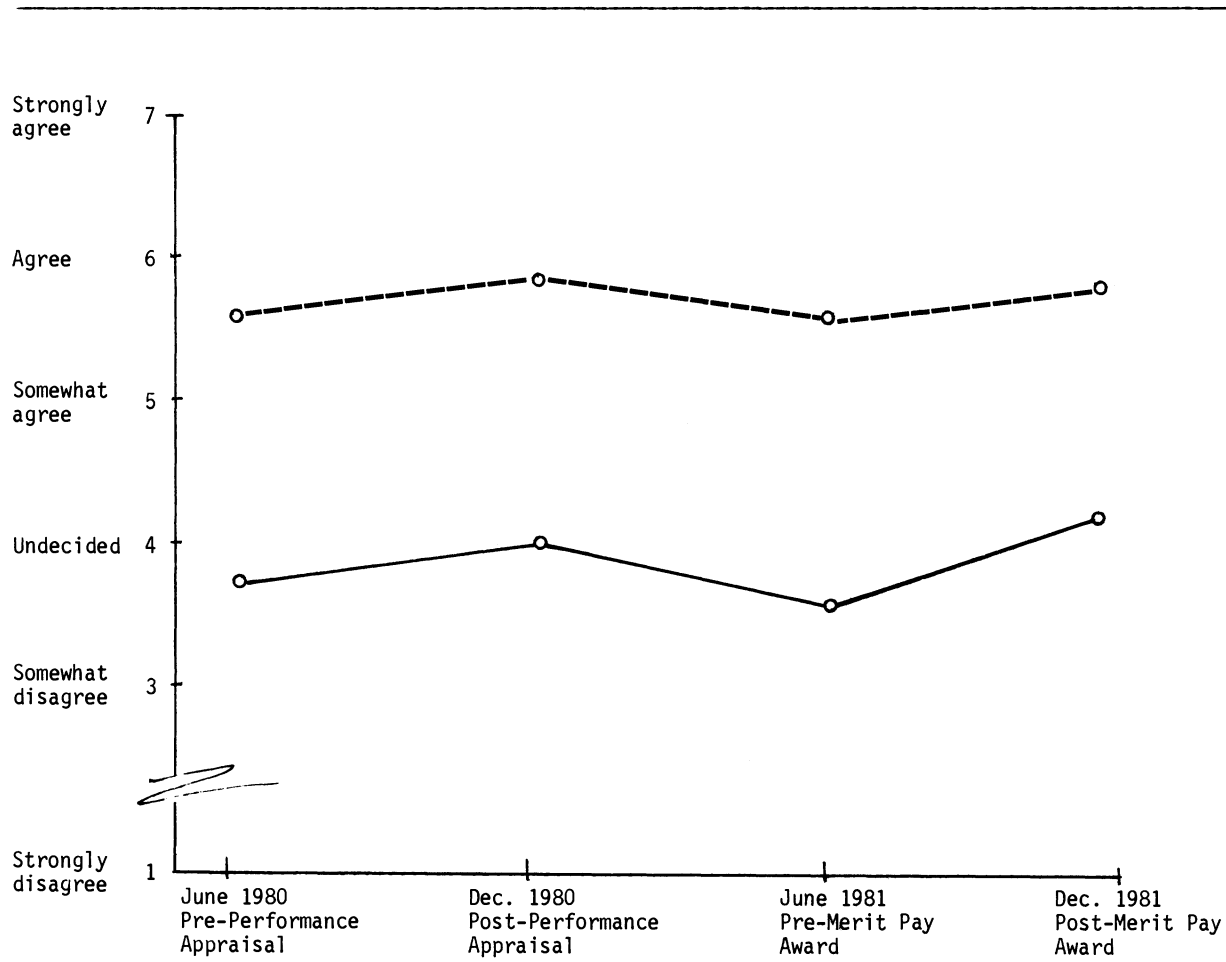
^c Rank order of item for time period specified.

*Probability \leq .10

**Probability \leq .05

***Probability \leq .01

FIGURE 1. MERIT PAY MANAGERS' BELIEFS ABOUT THE VALUE OF PAY AS A REWARD

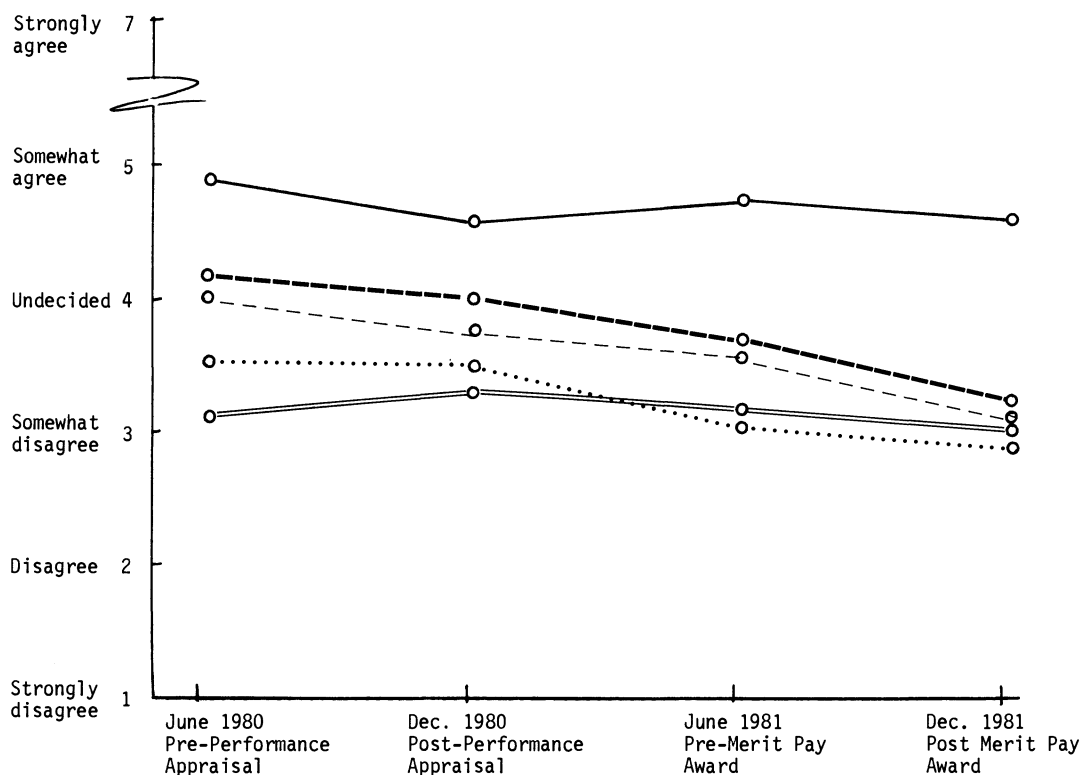


| QUESTIONNAIRE ITEM | MEAN RESPONSE | | | | T-test PROBABILITY ^a | | | |
|---|--------------------|--------------------|--------------------|--------------------|---------------------------------|-------------------------|-------------------------|-------------------------|
| | JUNE 1980 N=154 | DEC. 1980 N=177 | JUNE 1981 N=183 | DEC. 1981 N=133 | JUNE 1980- DEC. 1980 | DEC. 1980- JUNE 1981 | JUNE 1981- DEC. 1981 | JUNE 1980- DEC. 1981 |
| ----- I personally want to see better performers get larger financial rewards. | 5.79 | 5.90 | 5.87 | 5.95 | .179 | .382 | .240 | .125 |
| _____ I would probably work harder on my job performance if I thought I would then receive a cash reward or unscheduled pay increase. | 3.97 | 4.15 | 3.92 | 4.47 | .178 | .110 | .003*** | .007*** |

a The figures reported indicate the probability that the difference between the means of the two samples cannot be due to chance alone. The closer the t-test probability is to 1.0, the more likely the difference between the means could have occurred by chance. The closer the probability is to 0, the less likely the difference occurred by chance. One-tailed tests were used and the pooled variance estimate probability is reported.

*** Probability \leq .01.

FIGURE 2. MERIT PAY MANAGERS' BELIEFS ABOUT THE EFFECT OF EFFORT ON OBJECTIVES-BASED APPRAISALS



| QUESTIONNAIRE ITEM | MEAN RESPONSE | | | | T-test PROBABILITY ^a | | | |
|--|---------------|-----------|-----------|-----------|---------------------------------|---------------------|---------------------|---------------------|
| | JUNE 1980 | DEC. 1980 | JUNE 1981 | DEC. 1981 | JUNE 1980-DEC. 1980 | DEC. 1980-JUNE 1981 | JUNE 1981-DEC. 1981 | JUNE 1980-DEC. 1981 |
| | N=154 | N=185 | N=185 | N=136 | | | | |
| ----- All in all, I feel that the current performance appraisal process is effective. | 4.23 | 4.04 | 3.69 | 3.31 | .151 | .013** | .019** | .001*** |
| I am <u>not</u> sure what standards have been used to evaluate my performance. | 3.51 | 3.49 | 3.06 | 2.99 | .463 | .005*** | .355 | .006*** |
| ===== I have no control over the factors on which my performance is judged. | 3.10 | 3.21 | 3.08 | 3.00 | .253 | .195 | .337 | .307 |
| ----- It is difficult to document the actual performance differences among managers and supervisors. | 4.95 | 4.58 | 4.69 | 4.65 | .013** | .241 | .411 | .053* |
| ----- Overall, the current performance appraisal process helps me to improve my job performance. | 3.99 | 3.87 | 3.80 | 3.57 | .253 | .330 | .111 | .018** |

a The figures reported indicate the probability that the difference between the means of the two samples cannot be due to chance alone. The closer the t-test probability is to 1.0, the more likely the difference between the means could have occurred by chance. The closer the probability is to 0, the less likely the difference occurred by chance. One-tailed tests were used, and the pooled variance estimate probability is reported unless otherwise noted.

* Probability $\leq .10$, ** Probability $\leq .05$, *** Probability $\leq .01$.

lead to increased pay under merit pay than under the previous "time-in-grade" compensation program. We can trace the expectations of managers from June 1980 to December 1981 when all managers had received their ratings and payouts.

Managers' beliefs concerning the extent of the contingency of their pay on high performance under the previous compensation system and under merit pay appear in Figure 3. Managers are less likely to perceive that high performance will lead to increased pay in December 1981 than in June 1980. They feel that supervisors and managers are not paid in proportion to their contributions and merit pay does not encourage them to perform well. During their first merit pay appraisal period and after the first payouts, managers seemed *less* likely to expect more pay for higher performance than they did under the previous compensation program.

With the responses of all managers taken as a whole, the results indicate that merit pay managers do not expect their pay to be based on their performance to any greater extent under merit pay than under the previous "time-in-grade" system. These managers may believe that merit pay awards will be made but that they will be contingent not on "performance" or "contribution to the organization," but on some other measure. Merit pay increases will, after all, be based on a "substitute" for actual performance—a performance appraisal rating derived from the new, objectives-based performance appraisal system. It is possible that managers who have had no experience with this type of performance appraisal prior to the introduction of merit pay do not trust it to record genuine "high performance" and these suspicions tend to increase after these managers are rated.

It might be useful to see if those who do not trust their current performance appraisal system are also the ones who believe pay is not contingent on high performance and, in addition, do not favor the present merit pay practices. That is, do those who do not believe that their performance is accurately measured also feel that merit pay is not contingent on good performance? Table 2 shows substantial support for this explanation: those who feel most confident that their appraisal process is effective are also most likely to feel that good performance will be rewarded, and to favor merit pay. Those reporting greater distrust of performance appraisal—that it is ineffective, unfair, and subjective, and that appraisals do not help them to improve their performance—also tend to report that pay is not contingent on good performance. Only one indicator of distrust of appraisals—reported difficulty of documenting managerial performance—was unrelated to expectations of contingent pay and attitudes toward merit pay. These findings have important implications, indicating that acceptance of merit pay depends on accurate appraisals, as perceived by those being rated.²⁰ Without performance ratings that are perceived to reflect true performance, merit pay will not motivate good performance but only a quest for "high ratings."

Discussion

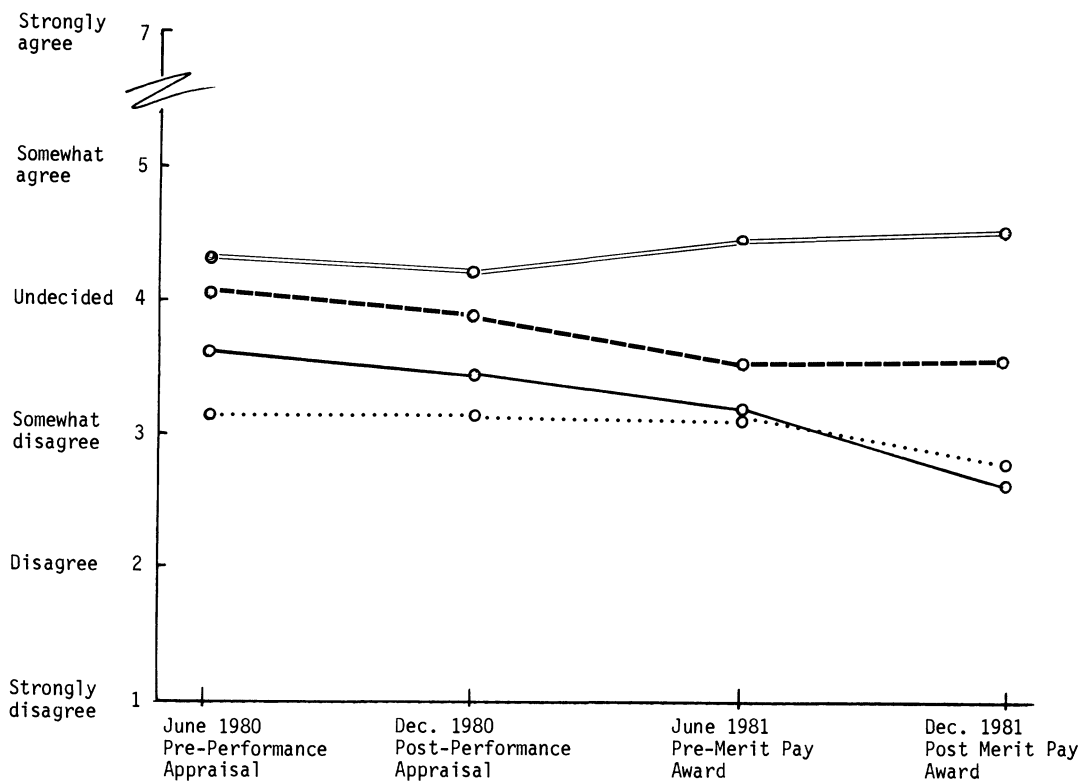
These results indicate that a diverse sample of federal managers do not appear to be more highly motivated under merit pay than under the previous time-in-grade compensation policies. Although these findings represent the reaction to the initial year of merit pay only, and may change with the passage of time, they serve to identify two types of contingencies that influence the prospect for developing a successful merit pay system. The first set of contingencies involves the motivational theory itself, e.g., the value of rewards and their linkage to performance. The second set of contingencies revolves around environmental support, e.g., congressional appropriation of funds.

Using the motivational model on which the merit pay program was based, we have identified a major weakness in the current approach. It is not that federal managers do not value pay as a reward, since they report that it is among the handful of important reasons for remaining in their current positions. Where the present merit pay program fails as a motivational program is in the methods used to measure performance. These managers report that effort is *less* likely to lead to a good performance rating, and therefore these managers believe that merit pay does not encourage them to perform their jobs well or contribute to their agencies' effectiveness.

Qualitative evidence from Social Security Administration (SSA) field offices indicates the disruptions that can occur when merit pay is tied to an insufficiently-developed performance appraisal system. Setting specific standards of performance for merit pay managers in local claims offices has had a large impact on the managers' behavior. There is clear evidence that the setting of these specific standards has focused managerial actions on their attainment; managers work hard to obtain good ratings on those standards that are measured. Yet not all of those actions could be considered "good management." Each manager and supervisor interviewed related stories of "gaming" the statistical measures of performance. "Gaming" is another form of goal displacement, i.e., when the goal is no longer "effective management" but "a good score on the statistics." Most of SSA's performance statistics can be "manipulated" with no direct harm (or benefit) to a claimant. For example, for the processing-time statistics, one can simply fill out an application but not let the claimant sign it until the earnings records and proofs are received. Therefore, the two weeks it takes someone to obtain a birth or marriage certificate are not counted in processing time statistics, and the claimant experiences no delay in payment, but the manager receives a better performance rating.

Our results indicate that problems reside not only with the appraisals themselves, but with their linkage to pay. The CSRA requirement that the funds budgeted for merit pay not exceed the cost of the previous system places significant constraints on both the size of rewards and the margin for error in performance appraisals. The first constraint diminishes the probable value of a

FIGURE 3. MERIT PAY MANAGERS' REPORTS OF PAY PRACTICES BEFORE MERIT PAY (JUNE 1980) AND UNDER MERIT PAY (DECEMBER 1980, JUNE 1981, AND DECEMBER 1981)



| QUESTIONNAIRE ITEM ^a | MEAN RESPONSE | | | | T-test PROBABILITY ^a | | | |
|--|---------------|-----------|-----------|-----------|---------------------------------|---------------------|---------------------|---------------------|
| | JUNE 1980 | DEC. 1980 | JUNE 1981 | DEC. 1981 | JUNE 1980-DEC. 1980 | DEC. 1980-JUNE 1981 | JUNE 1981-DEC. 1981 | JUNE 1980-DEC. 1981 |
| | N=152 | N=176 | N=182 | N=134 | | | | |
| -----If I perform especially well on my present job it is likely I would get a cash award or unscheduled pay increase. | 4.05 | 3.90 | 3.67 | 3.63 | .203 | .098* | .410 | .019** |
|Supervisors and managers are paid in proportion to their contribution to the organization. | 3.15 | 3.15 | 3.11 | 2.81 | .491 | .390 | .034** | .033** |
| ===== Under the present system, financial rewards are seldom related to manager or supervisor performance. | 4.37 | 4.26 | 4.40 | 4.47 | .268 | .188 | .361 | .298 |
| ————— All in all, current merit pay provisions encourage me to perform my job well. | 3.52 | 3.47 | 3.18 | 2.75 | .409 | .053* | .014** | .001*** |

a The figures reported indicate the probability that the difference between the means of the two samples cannot be due to chance alone. The closer the t-test probability is to 1.0, the more likely the difference between the means could have occurred by chance. The closer the probability is to 0, the less likely the difference occurred by chance. One-tailed tests were used, and the pooled variance estimate probability is reported unless otherwise noted.

- * Probability \leq .10.
- ** Probability \leq .05.
- *** Probability \leq .01.

TABLE 2
Correlations Between Confidence in Performance Appraisal and Contingency of Pay on Performance
Among Merit Pay Managers in December 1981

| | Trust of Appraisal | | | |
|---|---|---|--|--|
| | All in all, I feel that the current appraisal process is effective. | The standards used to evaluate my performance have been fair and objective. | It is difficult to document the actual performance differences among managers and supervisors. | Overall, the current performance appraisal process helps me to improve my job performance. |
| <i>Pay is contingent on performance</i> | | | | |
| If I perform especially well on my present job it is likely I would get a cash award or unscheduled pay increase. | .31*** | .38*** | -.18** | .21*** |
| Supervisors and managers are paid in proportion to their contribution to the organization. | .17* | .29*** | -.12* | .17** |
| All in all, current merit pay provisions encourage me to perform my job well. | .50*** | .31*** | -.01 | .57*** |
| <i>Favor Merit Pay</i> | | | | |
| All in all, I am strongly in favor of the merit pay provisions of the Civil Service Reform Act. | .47*** | .32*** | -.04 | .51*** |

*Probability < .10
 **Probability < .05
 ***Probability < .01

reward to an employee by setting an upper limit on the potential salary gain associated with outstanding performance. And since a fixed, rather than a variable, merit pay budget heightens the significance of allocational errors (for example, unnecessarily large payments to poorer performers)—because one employee’s gain is another employee’s loss—it becomes more difficult to create expectations that rewards will be contingent on performance. In a nutshell, if all managers and supervisors receive relatively uniform performance appraisals, the reward differentials among managers will be trivial and merit pay will have negligible motivational effects. Similarly, if performance appraisals are normally distributed across the ratings range, but are perceived as arbitrary or inappropriate measures of performance, merit pay will be of little motivational consequence. The linkage between merit pay and performance appraisals—specifically their accuracy and fairness—is, then, also critical for the effectiveness of merit pay.

It is the role of the merit-pay-pool manager to “manage the linkage between the performance appraisal and the merit pay determination” so that they “must be involved in both the performance appraisal and the merit pay process.”²¹ Raters are expected to change ratings only as necessary “based on specific information concerning the employee’s performance, or on the manager’s personal knowledge of and/or judgment about such performance.”²² Unfortunately, there

is no assurance that the exercise of such managerial discretion will not be arbitrary and, more important, that employees will share a pool manager’s perception even when changes are arguably appropriate. As reported by the GAO in September 1981, some managements have changed performance appraisal ratings without sufficient or legal justification.²³

Pool management at the research sites varied considerably along a continuum from passive to active control of the ratings distribution.²⁴ In some cases, for example, the Transportation and Public Utilities Service of the General Services Administration, the performance ratings of merit-pay-pool members were not altered before the monetary distribution was calculated. In contrast, at SSA, raters were asked to change the ratings that the pool managers felt were out of line.

The modification of appraisal ratings to achieve agency merit pay goals may have a number of undesirable consequences that are consistent with the results reported here. A manager who requests changes in ratings (or personally changes them) can be viewed as manipulative by those in the pool, and this may result in dissatisfaction with the appraisal used to compute pay awards. Changing a rating may not only create immediate dissatisfaction, but it may undercut the perceived validity of the entire performance appraisal system. A less problematic management strategy for dealing with inadequacies in performance ratings might involve

devoting more effort to the early stages of the appraisal process. At the Navy site, for instance, an audit of performance appraisals by the management of one pool concluded that objectives were rarely related to position descriptions and that measurement standards were unclear, especially for "above target" ratings. Under these circumstances, any modification of ratings would clearly appear arbitrary and improvement of the validity and objectivity of appraisals would be a better management strategy.

If the motivational theory underlying merit pay is correct, and if contingencies like those above can be overcome,²⁵ the success of merit pay hinges on yet other contingencies within the policy environment. For instance, the system still needs to overcome the effects of policy implementation failures like the September 1981 comptroller general decision. The comptroller general determined that the Office of Personnel Management formula for calculation of merit pay was not in conformance with CSRA, requiring immediate corrective action. The result was that subsequent payouts, which assured full comparability, provided only small merit pay differentials between managers.

While this particular breakdown in interagency communications may be a one-time occurrence, there are other apparent environmental contingencies. The pay cap on federal managerial salaries is among the other threats to the potential success of merit pay. A legitimate question confronting policy-makers is whether these types of environmental contingencies can be "managed" in such an uncertain political context. The answer at this stage is "No," and there is considerable opinion that such contingencies cannot be overcome because they are a permanent part of the political environment.²⁶

Conclusions

Why has the new merit pay system encountered so many difficulties? There seem to be several reasons. First, the new performance appraisal system was not adequately pretested. The fact that pay was tied to an "unknown" performance appraisal system exacerbated the implementation problems. There are bound to be problems—for example, unanticipated effects of certain measures and difficulty in developing accurate measures for certain job elements—in any new performance appraisal system. All of these problems create stress for those who are being evaluated. Yet under "normal" circumstances, most managers can assume that their own supervisors will be aware of these temporary imperfections and will not withhold salient rewards because of them. Under merit pay, this supervisor flexibility was either removed or made so administratively cumbersome (as in the SSA example) that the effort was simply not worth the heavy investment. Furthermore, the reward tied to this untried appraisal system was a very visible and a very salient one; and this "merit pay spotlight," focusing on the new appraisal system, led to heightened anxiety over its apparent imperfections. Under these circumstances, implementation of both

merit pay and objectives-based performance appraisal were more stressful and prone to failure than if performance appraisal had been fully implemented prior to attaching merit pay to it.

Second, there is an inherent contradiction in the guidance that calls for accurate appraisals based on consultation with the ratee along with "managed" ratings to ensure against payout inequities. Performance appraisal ratings must be accurate representations of a manager's performance, and they must also be managed by pay pool managers and personnel specialists to maintain equity across pay pools, with a sufficient dispersion of ratings within a pool to ensure that the size of the increase received by the "best" managers is large enough to motivate their effort. This represents a significant contradiction in the merit pay system. If the ratings are accurate, why should they be manipulated? Will this not make them less accurate? In fact, this contradiction seems to be based on several assumptions: that all pay pools contain the same proportion of high/average/low performers; that managerial performance is naturally distributed in a manner that allows high performers to receive increases two to four times greater than low performers; and, finally, that the only reason actual ratings do not reflect this is that raters either willfully, or through ignorance, distort their ratings. These assumptions seem tenuous at best and deserve to be more openly debated.

Finally, merit pay, a traditional motivational technique in the private sector, has encountered difficulties that are peculiar to its public sector context. It is doubtful that any merit pay system in the private sector has had to function in the face of an inherently ambiguous performance environment, tight budgetary restraints, freedom of information about individuals' salaries, diffuse authority for implementation, a major managerial succession, and significant changes in organizational goals. Yet, these types of factors are continuing features of the public sector context for merit pay. Although merit pay is desirable in principle, its effectiveness may be severely constrained or negated within the environment of the federal sector.²⁷ This issue also deserves further scrutiny and debate.

This analysis suggests several policy implications. Although merit pay is still in its "fair trial stage," steps might be taken now to increase the probability that its operation will at some point coincide with the intent of its designers. The validity of performance appraisals will need to be improved, and supervisory training in standards development and appraisal feedback increased. Only when the performance appraisal systems become accepted indicators of actual performance will a motivating link between performance and pay be possible. Greater support will have to be generated from Congress and OMB to assure adequate funding for federal compensation programs. The analysis also indicates that any effort to extend merit pay to lower level professional and administrative employees, as recommended by the President's Reorganization Project,²⁸ would be premature. There is no indication that the merit pay experiment at grades 13-15 has been suffi-

ciently successful to warrant the coverage of employees in grades 1-12. This choice should probably be deferred until there is evidence affirming the original decision to bring merit pay to the federal service.

Notes

1. See President's Panel on Federal Compensation, *Report to the President* (Washington, D.C.: U.S. Government Printing Office, December 1975).
2. See U.S. Office of Personnel Management, *Merit Pay Systems Design* (Washington, D.C.: U.S. Office of Personnel Management, February 1981).
3. Comptroller General of the United States, *Office of Personnel Management's Implementation of Merit Pay (decision B-203022)* (Washington, D.C.: U.S. General Accounting Office, September 1981).
4. U.S. General Accounting Office, *Federal Merit Pay: Important Concerns Need Attention* (Washington, D.C.: U.S. General Accounting Office, March 1981).
5. Victor H. Vroom, *Work and Motivation* (New York: John Wiley, 1964).
6. Edward L. Deci, "The Effect of Contingent and Noncontingent Rewards and Controls on Intrinsic Motivation," *Organizational Behavior and Human Performance*, 8 (1972), pp. 217-229.
7. Bobby J. Calder and Barry J. Staw, "The Interaction of Intrinsic and Extrinsic Motivation," *Journal of Personality and Social Psychology*, 31 (1975), pp. 599-605.
8. Herbert H. Meyer, "The Pay for Performance Dilemma," *Organizational Dynamics*, 3 (1975), pp. 39-50.
9. *Ibid.*
10. Edward E. Lawler, III, *Pay and Organizational Effectiveness* (New York: McGraw-Hill, 1971).
11. W. Clay Hamner, "How to Ruin Motivation With Pay," *Compensation Review*, 3 (1975).
12. Thomas A. Mahoney, *Compensation and Reward Perspectives* (Homewood, Ill.: Irwin, 1979); Alan N. Nash and Stephen J. Carroll, *The Management of Compensation* (Monterey: Brooks-Cole, 1975); Thomas H. Pattern, *Pay: Employee Compensation and Incentive Plans* (New York: Free Press, 1977).
13. See G. P. Latham, "A Review of Research on the Application of Goal Setting in Organizations," *Academy of Management Journal*, 18 (1975), pp. 824-845.
14. See Hal G. Rainey, "Perceptions of Incentives in Business and Government: Implications for Civil Service Reform," *Public Administration Review*, 39 (September/October 1979), 440-448; Comptroller General of the United States, *Postal Service Merit Program Should Provide More Incentive for Improving Performance* (Washington, D.C.: U.S. General Accounting Office, November 24, 1980).
15. See, for example, Steve Rappold, "The Merit Pay Payout: CAB's Experience the First Year," *Management*, 2 (Spring 1981), pp. 10-11; Efstathia A. Siegel, "Eight Agencies Link Pay to Performance: Will Merit Pay Work?" *Management*, 2 (Spring 1981), pp. 15-17.
16. Betty Jane Narver and Sharon Wells, *Implementation of Merit Pay: Experiences in Two Federal Agencies* (University of Washington: Institute for Public Policy and Management, March 1981).
17. Within each of these organizations, two random samples of managers were selected. One sample was designated a permanent panel and was asked to participate in each administration of the survey. The second random sample was drawn from a cross-section of employees who were replaced at each administration of the survey. The two samples were selected so that responses from members of the cross-sectional sample could be compared with those of the panelists in order to detect any repeated-measurement bias among the panelists.
18. A test-retest administration of the June 1980 FES was conducted to determine the reliabilities of the questionnaire items. The two administrations of the survey occurred at a site not involved in the evaluation—the Internal Revenue Service, Los Angeles. The surveys were administered at a two-week interval under conditions similar to those used in the five evaluation sites. The final number of usable questionnaires totaled 66, with 28 GS-13 and above respondents. The appropriate statistic for assessing retest reliability is the Pearson product moment correlation coefficient. The mean coefficient for the items appearing on both employee and managerial questionnaires was .61 and the mean coefficient for items appearing only on the managerial questionnaire was .55.
19. It is noteworthy that this decline in the perceived importance of challenging work responsibilities, though not attributable to CSRA, runs counter to established trends in the general workforce during the 1970s. See Raymond A. Katzell, "Changing Attitudes Toward Work" in *Work in America: The Decade Ahead*, Clark Kerr and Jerome M. Rosow (eds.) (New York: Van Nostrand Reinhold, 1979).
20. Additional support for this argument is provided in Lloyd G. Nigro, "Attitudes of Federal Employees Toward Performance Appraisal and Merit Pay: Implications for CSRA Implementation," *Public Administration Review*, 41 (January/February 1981), pp. 84-86.
21. U.S. Office of Personnel Management, *Merit Pay System Design* (Washington, D.C.: U.S. Office of Personnel Management, October 1981), p. 79.
22. *Ibid.*, p. 80.
23. U.S. General Accounting Office, *Serious Problems Need to be Corrected Before Federal Merit Pay Goes Into Effect* (FPCD-81-73) (Washington, D.C.: U.S. General Accounting Office, September 1981).
24. For a more detailed discussion of some of the issues involved in merit-pay-pool management, see James L. Perry, Carla Hanzlik and Jone L. Pearce, "Merit-Pay-Pool Management and Merit Pay Effectiveness," *Review of Public Personnel Administration*, 3 (Fall 1982).
25. W. Clay Hamner, "How to Ruin Motivation with Pay"; Carol J. Loomis, "The Madness of Executive Compensation," *Fortune* (July 12, 1982), pp. 42-52.
26. See Robert W. Hartman and Arnold R. Weber (eds.), *The Rewards of Public Service: Compensating Top Federal Officials* (Washington, D.C.: The Brookings Institution, 1980).
27. For a general discussion of the efficacy of different motivational techniques, including monetary incentives, in the public sector, see James L. Perry and Lyman W. Porter, "Factors Affecting the Context for Motivation in Public Organizations," *Academy of Management Review*, 7 (January 1982), pp. 89-98.
28. The President's Reorganization Project, *Personnel Management Project*, Volume 1, Final Staff Report (December 1977), p. 161.