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Merit Based Performance Appraisal and Productivity: Do Employees Perceive the Connection?

GERALD T. GABRIS
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INTRODUCTION

DO employee incentive plans lead to increased productivity? The issue is whether the current push in public organizations for merit pay plans can lead to higher employee performance. The assumption behind a merit system is that the promise of an extra monetary reward will cause employees to put forth greater work effort. On the surface, this is a plausible and seemingly logical idea, but does the theoretical and empirical record corroborate this basically deterministic expectation?

The central purpose of this article is to consider the above issue by reviewing the results of a recent study of the Biloxi, Mississippi, "merit bonus play plan." Like many other local jurisdictions, state governments, and Federal agencies, the City of Biloxi has moved to implement a merit-based performance appraisal system for all municipal employees. This research inquires whether a merit system specifically designed to stimulate employee performance is perceived by employees directly affected by the system as achieving this objective.

The results of the Biloxi study suggest that employee perceptions of a merit system are not a simple black and white issue. There is a considerable amount of gray. In the context of using it to evaluate subordinates, there appears to be a relationship between proximity to system implementation and perceptions of system fairness and effectiveness. Middle managers, who in Biloxi bore the brunt of evaluation responsibility, were also the system's most noticeable skeptics. Top-level managers, who were connected to the new system primarily from a policy standpoint, tended to be the system's strongest supporters and advocates. Staff employees, who

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were the principal recipients of merit evaluations and merit bonuses, were more mixed in their reactions. Thus one's functional responsibility in the organizational hierarchy appears to be related to perceptions regarding the system's impact on employee productivity. Why these particular patterns emerged in Biloxi and how they may have implications for other performance appraisal systems will be the primary focus of this article.

Linking Pay to Performance: What Does the Literature Have to Say

The use of merit pay as a mechanism for stimulating employee productivity is not a new idea. Douglas McGregor was one of the early critics of performance appraisal systems that place managers in judicial and punitive roles over their subordinates.¹ These early systems were very subjective, frequently trait-based, and only remotely related to promotions and raises. As such, annual appraisals were generally resented and resisted by both managers and employees alike.² McGregor did feel, however, that if performance appraisal could be developed along the lines of "management by objectives," where employees could devise their own evaluation targets, it might be possible to evaluate employees on their actual work output.³

The logic that pay should be linked to performance makes a great deal of sense. Why should highly productive employees maintain high productivity if no reward is in the offering? This type of thinking undergirds Victor Vroom's "expectancy theory."⁴ In this perspective, employees are presumed to expect rewards for their contribution and to expect that rewards for current efforts will serve as stimuli for future productivity. If there is no payoff, employee performance will most likely decline.

Another model of merit-based performance is that outlined in "equity theory."⁵ In this approach, it is assumed that employees continuously evaluate the relative fairness existing between their level of perceived output and level of perceived reward. Employees who perceive an imbalance or inequity between perceived effort and reward may alter their work habits so as to achieve an equilibrium between these two variables.

The notion that merit-based performance appraisal might stimulate employee productivity is also documented in a number of attitudinal

¹ Douglas McGregor, "An Uneasy Look at Performance Appraisal," in *Classics of Personnel Management* Thomas H. Patten, ed. (Oak Park, Ill.: More Publishing Co., 1979), 353-359.

² *Ibid.*, 355.

³ *Ibid.*, 355.

⁴ Victor Vroom, *Work and Motivation* (New York: John Wiley, 1964).

⁵ J. S. Adams, "Inequality in Social Exchange," in *Advances in Social Psychology*, Volume 2, L. Berkowitz, ed., (New York: Academic Press, 1965).

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studies on the subject. In one survey of state employees, Lovrich *et. al.* found substantial support among public employees for merit based performance appraisal, especially if such a system augmented employee participation in determining performance standards.⁶ In the Lovrich study, large percentages of the respondents "agreed" that a good performance appraisal system "can improve individual performance" and "can improve agency effectiveness."⁷ In a different study of state employees, Clement and Aranda found little evidence suggesting major disagreement between supervisors and subordinates concerning the objectives of performance appraisal.⁸ Their research suggests that potential conflict between managers and subordinates over the purpose and function of the performance appraisal process may not be all that serious. Other researchers, notably Gary Latham and Kenneth Wexley, contend that properly implemented behavioral performance appraisal systems have led to higher worker productivity.⁹

The point of the above discussion is that when performance appraisal is approached in a theoretical and normative context, there are several solid arguments in favor of a merit based system. Employees themselves appear to support the notion that raises and promotions should be based on merit. There is, however, one small problem in the seemingly sensible logic of rewarding performance with pay. Simply stated, there is very little conclusive empirical evidence that clearly substantiates this relationship.

To illustrate this point, there has not been one major empirical article in the *Public Administration Review* during the past five years that clearly demonstrates that a performance appraisal system has increased employee productivity. Indeed, even the merit-based pay system mandated by the Civil Service Reform Act of 1978 for Federal employees has been found suspect. In an assessment of an updated version of the Federal Employee Attitude Survey (FEAS), Lloyd Nigro found a growing level of uncertainty toward the performance appraisal system being implemented by Federal managers.¹⁰ Nigro states that this should not be taken as a rejection of CSRA objectives so much as a "wait and see attitude" normally associated with organizational change.

⁶ Nicholas Lovrich, Paul Shaffer, Ronald Hopkins, and Donald Yale, "Do Public Servants Welcome or Fear Merit Evaluation of Their Performance?" *Public Administration Review*, 40:3 May/June 1980, 214-222.

⁷ *Ibid.*, 218.

⁸ Ronald Clement and Eileen Aranda, "Performance Appraisal in the Public Sector: Truth or Consequences," in *Review of Public Personnel Administration*, 5:1, (Fall 1984), 34-43.

⁹ Gary Latham and Kenneth Wexley, *Increasing Productivity Through Performance Appraisal* (Reading, Mass: Addison-Wesley, 1981).

¹⁰ Lloyd Nigro, "CSRA Performance Appraisals and Merit Pay: Growing Uncertainty in the Federal Workforce," *Public Administration Review*, 42:4 July/August 1982, 363-371.

In another in-depth and methodologically more sophisticated study of the Federal merit system, Pearce and Perry conclude that Federal 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."¹¹ In their research, the principal culprit inhibiting acceptance of the Federal system has been dysfunctional implementation, ranging from the absence of pretested instruments to highly inaccurate performance indicators. In another article by Pearce, Perry, and Stevenson, the authors conclude "that the implementation of merit pay had no significant effects on organizational performance."¹² Again, flaws in how the system was implemented precipitated many of the problems faced by the Federal merit pay plan.

In a recent study of state employees, Finn and Fontaine also report widespread negative attitudes toward merit-based performance appraisal by public employees.¹³ In their study, it was found that many employees perceive performance appraisal as a waste of their time and ineffective as a feedback device. In the Finn and Fontaine study, employees thought that too much emphasis was placed on the process of evaluation and too little on the nature of the tasks being evaluated.¹⁴ Employees thought the appraisal interviews were perfunctory nonexperiences designed to fill out forms that would probably not be used by managers in making promotion and raise decisions. Managers were found equally to dislike the appraisal interviews because of the workload associated with the process.

These patterns in the literature raise some difficult questions. Why does merit-based performance appraisal sound so good in theory, yet so often fail in practice? In the case of Pearce and Perry, the response is that the

Why does merit-based performance appraisal sound so good in theory, yet so often fail in practice?

¹¹ Jone Pearce and James Perry, "Federal Merit Pay: A Longitudinal Analysis," *Public Administration Review*, 43:4 July/August 1983, 315-326.

¹² Jone Pearce, James Perry, and William Stevenson, "Managerial Compensation Based on Organizational Performance: A Time Series Analysis of the Impact of Merit Pay," *Academy of Management Journal*, 28:2 June 1985, 275.

¹³ R. H. Finn and P. A. Fontaine, "Performance Appraisal: Some Dynamics and Dilemmas," *Public Personnel Management*, 13:3 Fall 1984, 335-345.

¹⁴ *Ibid.*, 339.

vicissitudes of the political environment of Federal agencies seriously constrain the probability of performance appraisal success in these types of organizations.¹⁵ Finn and Fontaine suggest that the procedural requirements attached to performance appraisal systems tend to dampen enthusiasm for such techniques among managers and employees.¹⁶ Latham and Wexley point out that no matter how sophisticated a particular performance appraisal instrument is, it probably will not be successful unless managers are properly trained in its application.¹⁷ All of these are valid observations concerning why merit based performance appraisal often does not work as expected. In addition to these observations, another reason can be forwarded: that how an employee perceives an evaluation system, either positively or negatively, may be related to his or her larger role within the organizational hierarchy. The rationale for this assumption is described below.

Organizational Levels and Managerial Roles

In his seminal book, James D. Thompson suggests that complex organizations manifest simultaneous drives toward "open system" and "closed system" behavior.¹⁸ In the view of Thompson, organizations can be conceived as open systems that must continuously adapt to environmental uncertainty in order to survive. At the same time, organizations seek certainty, stability, and often operate according to norms of rationality.¹⁹ In other words, organizations intentionally endeavor to control, routinize, and specialize work as much as possible. Thompson hypothesizes that open-system behavior and closed-system characteristics are not randomly distributed throughout the entire organization. Instead, he suggests that top managers, who comprise the "institutional" level of the organization, are mainly geared toward open-system behavior.²⁰ This is because their primary duty is interfacing the organization with its environment for survival. They are the policy makers of the organization.

The next level is termed "managerial." Employees operating at this level, who in most organizations would be "middle managers," are directly responsible for carrying into effect the policy mandates of the institutional or top managerial level.²¹ It is the responsibility of the middle managers to secure the necessary resources for policy implementation and

¹⁵ Pearce and Perry, "Federal Merit Pay," 324.

¹⁶ Finn and Fontaine, "Performance Appraisal, 339.

¹⁷ Latham and Wexley, *Increasing Productivity Through Performance Appraisal*, 99-119.

¹⁸ James D. Thompson, *Organizations in Action* (New York: McGraw-Hill, 1967).

¹⁹ *Ibid.*, 10.

²⁰ *Ibid.*, 12.

²¹ *Ibid.*, 11.

to convince his or her subordinates to accept these adaptations. This is no easy task and often places the middle manager between the proverbial "rock and a hard place." The middle manager may see the value of a top level policy decision but also perceive its inherent weaknesses and dysfunctions. Even though middle managers may perceive the problems in a new policy, they are expected to carry it out, often to the chagrin of first-line supervisors and employees.

The final level described by Thompson is termed "technical." This is the basic operating level of the organization, where the actual outputs are produced. It is also the level that seeks the greatest certainty and routinization of work, and for this reason is the most closed-system oriented and resistant to change.²² Staff employees and first-line managers often do not perceive the value or need for policy changes mandated by top level managers and often pay only lip service to them.

An implication of Thompson's theory is that how an employee perceives a particular managerial policy is at least partially contingent upon the employee's role in carrying out the policy within the organization. Top managers may be the advocates of merit pay and envision it as an effective managerial tool for rewarding outstanding employee productivity. At the same time, top-level executives are frequently not responsible for the direct implementation of merit programs and are usually not evaluated by such systems themselves. Middle managers, however, do play a major role in such system implementation and usually are responsible for using it to evaluate their subordinates. Middle managers must also convince first-line supervisors and staff employees that the system is fair and will result in merit rewards. More often than not, middle managers are also the first to hear about major problems connected with a merit system and receive the bulk of the complaints that must be resolved. For these reasons, it is probable that middle managers are more skeptical toward merit systems as a mechanism for increasing productivity. Technical-level employees will also be skeptical toward merit systems, but will probably wait and see how the system directly impacts on them before rendering a judgment on system fairness. It is likely that technical-level employees who receive high merit scores will view the system positively, and those who receive low scores and no bonuses negatively.

In other words, favorableness and unfavorableness toward performance appraisal are not likely to be randomly distributed throughout the organization. If merit systems are bound to failure, as some literature suggests, then one might expect systematic disenchantment regarding such systems

²² *Ibid.*

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to permeate all levels of the organization. If, on the other hand, there is "selective" disenchantment with performance appraisal associated with specific organizational levels and functional responsibilities, then perhaps attempts to improve performance appraisal success can be more effectively targeted. There is some evidence for these claims.

In a study of Federal manager attitudes toward promotion, Beyers, Stevens, and Trice found evidence to suggest that organizational level plays some role in influencing the kinds of criteria managers perceive as related to promotion.²³ In their study of 634 managers, these authors found that lower-level and lower-status managers rated technical skills and seniority as the most important factors associated with promotion. Conversely, higher-ranking and higher-status managers (those who were more mobile) expected job "performance" to be more highly rewarded. In a study of state agency managers by Gabris and Giles, it was found that level of organization was directly correlated to favorableness toward system change and performance appraisal.²⁴ Top level managers rated themselves as highly competitive, aggressive, and change-oriented. These same top managers also perceived most organizational changes as well planned and believed that a new merit-based performance appraisal instrument would increase productivity. Conversely, middle and first-line managers viewed themselves as much less competitive and aggressive and were much more skeptical concerning whether performance appraisal would lead to increases in productivity.

The thrust of these findings is to suggest that whether merit-based performance appraisal is perceived to increase productivity depends partially on where one stands in the organizational hierarchy. Disenchantment with merit systems may not be prevalent at the same levels throughout the entire organization. Some employees may advocate such systems, others may welcome the probability of bonuses, while others may dislike the system because of the new responsibilities it places on them. Thus, whether employees perceive the connection between pay and performance is not a black and white issue. This will be demonstrated by an analysis of the Biloxi merit bonus pay plan.

²³ Janice Beyer, John Stevens, and Harrison Trice, "Predicting How Federal Managers Perceive Criteria Used for Their Promotion," *Public Administration Review*, 40:1 January/February 1980, 55-67.

²⁴ Gerald Gabris and William Giles, "Level of Management, Performance Appraisal, and Productivity Reform in Complex Organizations," *Review of Public Personnel Administration*, 3:3 Summer 1983, 45-63.

The Biloxi Merit Bonus Pay Plan

The authors have been involved for the last two years in developing a performance appraisal and merit bonus system for the City of Biloxi, Mississippi. Biloxi is a coastal city with a population of about 50,000 and with a municipal workforce of about 500 employees. The Biloxi merit bonus pay plan is just one part of a larger reform effort that began in 1981. In that year, Biloxi changed its form of government from that of the "commission" type to that of the "mayor-council" or strong mayor form. The response to the change in form of government was substantial, suggesting a popular sentiment for major reforms in how the city government was to be run. In reaction to this public mandate for change, the mayor inaugurated a whole series of reforms, including reorganization of the municipal departments, program budgeting, computerized financial records, and a merit based personnel system. Obviously the magnitude of these changes has created some difficulty and resentment, although for the most part, the city and its employees have adjusted rather well to these new administrative systems, which placed considerably less emphasis on old-style traditional politics.

The city established by ordinance its new merit-based personnel system in 1982. The system was designed to incorporate the concept of "quality control circles" (QCC's) in the construction of the evaluation instruments.²⁵ In Biloxi, these QCC's were called "merit councils," and each of the five municipal departments was required to establish one. The purpose of the merit councils was to develop the performance appraisal indicators for each position within each department by which the employees of particular departments would be evaluated. The merit councils consisted of both managerial and nonmanagerial employees who represented a diagonal slice of the functional positions within each department. Nonmanagerial merit council members were elected by their peers. Most merit councils averaged about 20 members and were divided into teams of about 5 people each. After the merit councils had developed the job performance indicators, they were reviewed by department directors and then utilized in the individual employee evaluation instruments. Raw performance appraisal scores were transformed into percentages, and monetary merit bonuses were then attached or not attached depending upon each individual employee's performance rating. Bonuses are to be awarded twice a year with performance appraisals to be conducted quarterly. The idea

²⁵ Gerald Gabris, Kenneth Mitchell, and Ron McLemore, "Rewarding Individual and Team Productivity: the Biloxi Merit Bonus Plan," *Public Personnel Management*, 13:3, Fall 1985, 231-245.

behind the merit bonus is to reward outstanding employees with additional monetary incentive. At the time of the study all departments had undergone two performance appraisals and one merit bonus distribution.²⁶

Employee Attitudes Toward Merit Pay as a Stimulant to Greater Productivity

After having been directly involved in the development and the implementation of the Biloxi merit system, the authors became curious about how employees would perceive it in practice. An extensive fixed-response management questionnaire was constructed and administered to over 300 of Biloxi's 470 employees. This is relatively close to the universe, given that some employees were on vacation, worked part-time, or worked the very late night shift (*i.e.* police from midnight to 8 a.m.). Of the 300 interviews, a total of 281 were usable. The authors also implemented a structured open-ended questionnaire to over 100 employees, most of whom were in managerial positions. The data reported in this article are purely from the fixed-response questionnaire, which utilized a five-point Likert Type scale for each attitudinal item, ranging from "strongly disagree" to "strongly agree."

Since no actual measure of employee productivity was readily available, the authors chose to measure employee perceptions toward their own productivity and output. The employees were asked to measure their own individual productivity increase as a result of the new merit pay system, and to also assess whether they felt the system increased the group or team productivity of their unit. Although there is some fuzziness and softness associated with attitudes and perceptions, the authors contend this was the best approach for measuring employee productivity behavior at the time in Biloxi.

At this point, two propositions will be forwarded to help focus our analysis. First, when controlling for level of organization, top management will support the objectives of performance appraisal and merit pay systems more than middle management and staff employees. Secondly, when controlling for level or organization, top management will more likely believe that a merit-based performance system actually does increase individual and group productivity.

In order to test these propositions, Biloxi municipal employees were divided into three distinct groups. Department heads and other top staff employees who answer directly to the mayor have been classified as "top"

²⁶ The following data illustrate the breakdown of performance appraisal scores by category. The range was from 0 to 100. Any employee scoring above 71 was eligible for a merit bonus.

managers. An example is the director of the Public Safety Department. Managers who headed divisions and who answer to a department director were classified as "middle" managers. A police lieutenant and the director of code enforcement are examples of this type. The great majority of employees, those assigned to general staff positions or with the responsibility of supervising one or more people, were classified as "staff" employees. Examples include a fireman, a patrol officer, and a work crew member in Public Works.

The two main dependent variables are attitudes toward whether "individual" and or "group" productivity have been perceived to increase as a result of the new merit system. Select attitude items regarding merit system implementation and merit system preferences serve as the attitudinal independent variables. Level of organization serves as a control. Pearson's zero order correlation was used to test the degree of association and direction for each relationship.

Findings

Based on the correlations reported in Table 1, it appears there is ample evidence for our first proposition, especially with regard to attitudes toward merit system implementation and its impact on perceived self and group productivity. Top managers systematically perceive increases in individual and group productivity as a result of merit system implementation. Middle managers appear to be consistent in their skepticism or to whether system implementation has increased self and group output. Staff employees appear more mixed in their reactions and perceptions. There are some notable observations that can be gleaned from Table 1.

First, a respondent's raw merit percentage score does not appear to correlate highly with perceived increases in performance, with the exception of top managers. This may be because top managers have a direct stake in the system and are reluctant to challenge it, even if they do perceive problems. On the other hand, staff employees, who do the bulk of the work for each department, do not clearly see a connection between merit evaluation and performance. Staff employees who feel that their monetary awards were substantial enough do tend to perceive their individual and group productivity as increasing. However, these correlations are not as strong as they are for top level managers. These patterns tend to confirm our second proposition that top managers will perceive system implementation as substantially increasing organizational performance.

As the authors have also predicted, middle managers are the most severe critics of system implementation. For example, there is no correlation between perceived system fairness and perceptions of increased

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| | Organizational Level | Perceived More Self Productivity | Perceived More Group Productivity |
|---|--|----------------------------------|-----------------------------------|
| Attitudes Toward System Implementation | | | |
| Raw Percentage Score on Last Performance Appraisal (0 to 100) | Top Managers Middle Managers Staff Employees | .80* -.05 -.08 | .77* -.01 -.11 |
| Do you feel the merit council members in your Department were impartially chosen? | Top Managers Middle Managers Staff Employees | .68* .01 .17* | .61* .16* .17* |
| Were merit bonuses awarded fairly? | Top Managers Middle Managers Staff Employees | .87* .08 .35* | .79* .08 .35* |
| Is it possible to measure your performance? | Top Managers Middle Managers Staff Employees | .44* .24* .30* | .56* .13 .30* |
| Do you feel the merit councils allow non-managerial workers in your Department to have a say in personnel policy? | Top Managers Middle Managers Staff Employees | .93* .28* .53* | .90* .28* .54* |
| Did the monetary amount associated with the bonuses satisfy your idea of a fair reward for productive work? | Top Managers Middle Managers Staff Employees | .70* .27* .42* | .79* .23* .38* |
| Do you feel the indicators developed by your Department's merit council were fair and accurate? | Top Managers Middle Managers Staff Employees | .79* .31* .53* | .69* .33* .51* |
| Was the merit bonus system adequately explained in your Department? | Top Managers Middle Managers Staff Employees | .70* .24* .36* | .67* .34* .29* |
| Do you feel your job description developed by your Department's merit council reflects what you do on the job? | Top Managers Middle Managers Staff Employees | .83* .15 .28* | .72* .21 .21* |

*Indicates a P value of .05 or less. N for Top Managers = 12, N for Middle Managers = 77, and N for Staff Employees = 192. Total N = 281. All responses except raw performance score are measured by a 5 point Likert Scale from Strongly Disagree to Strongly Agree.

Table 1: Zero order correlations between perceptions toward merit system implementation and increased productivity: controlling for organizational level.

| Attitudes Toward System Preferences | Organizational Level | Perceived More Self Productivity | Perceived More Group Productivity |
|---|----------------------|----------------------------------|-----------------------------------|
| Which is more important for an employee to emphasize — results or effort? | Top Managers | .69* | .58* |
| | Middle Managers | .23 | .16 |
| | Staff Employees | .09 | -.01 |
| Would you favor in the near future, awarding merit bonuses on a team basis, while still maintaining individual bonuses? | Top Managers | .44* | .42* |
| | Middle Managers | .15 | .05 |
| | Staff Employees | .23* | .24* |
| Have the merit bonuses and merit council concept improved moral in your Department? | Top Managers | .66* | .64* |
| | Middle Managers | .43* | .51* |
| | Staff Employees | .68* | .63* |
| Do you want the merit bonuses and merit councils to continue | Top Managers | .76* | .80* |
| | Middle Managers | .78* | .76* |
| | Staff Employees | .72* | .70* |
| Do you feel that raises and promotions in the City should be based on merit? | Top Managers | .56* | .52* |
| | Middle Managers | .35* | .24* |
| | Staff Employees | .43* | .41* |
| Do you feel that raises should be based on an across-the-board system (everyone gets the same)? | Top Managers | .00 | -.12 |
| | Middle Managers | -.08 | -.21* |
| | Staff Employees | -.15* | -.24* |
| Do employees in your Department really accept these changes as legitimate and meaningful (merit evaluations and bonuses)? | Top Managers | .84* | .77* |
| | Middle Managers | .38* | .56* |
| | Staff Employees | .62* | .66* |

*Indicates a P value of .05 or less. N for Top Managers = 12, N for Middle Managers = 77, and N for Staff employees = 192. Total N = 281. All responses are measured by a 5 point Likert Scale from Strongly Disagree to Strongly Agree.

Table 2: Zero order correlations between perceptions toward merit system normative preferences and increased productivity: controlling for organizational level.

productivity for middle managers. Middle managers also appear to be less convinced that the merit councils developed adequate job descriptions or explained the merit bonus and evaluation system thoroughly enough to city employees. Middle managers are even less certain whether the performance appraisal instrument is capable of measuring their performance.

Staff employees who agree with the system implementation attitude items generally correlate with perceptions of increased self and group productivity. As the authors predicted, these relationships, while statistically significant in most cases, are not as strong as one might expect. This suggests a certain degree of uncertainty and wait-and-see attitude among this group of city workers.

Another issue affecting attitudes toward merit pay is whether employees find a merit system meshing with their normative preferences toward how an organization should reward its employees. Table 2 reports the zero-order correlations between attitudes measuring normative preferences and perceptions of increased self and group productivity. The first noticeable pattern is that the same trends outlined in Table 1 hold for Table 2. Top managers systematically favor merit systems from a preference (and presumably policy) standpoint, and they evidence strong correlations between these preferences and perceptions of increased productivity. Top managers, more than middle managers and staff employees, also feel that movement toward team-based merit bonuses is likely to increase overall group performance. Middle managers are the most skeptical observers of this idea. This difference also is reflected in the correlations between emphasis placed on effort rather than results and perceptions of increased productivity on the part of top managers. Middle managers and staff employees simply do not perceive much connection between stressing effort and increased performance, at least not at the rate that top managers do.

Surprisingly, all of those employees at all three levels who prefer to retain the merit councils and bonuses do feel that the system will increase individual and group output; they also exhibit a positive correlation between perceived increases in morale and productivity. Thus if you feel the system is working and prefer it, there is a greater probability that you will in fact perceive it as accomplishing its objectives. Further, if an employee perceives the merit system reforms as legitimate and meaningful, there is a higher probability of the employee's linking them to increases in productivity. Again, these relationships are highest for top managers and lowest for middle, with many staff employees somewhere in between. Thus whether employees perceive the connection between

merit pay and productivity depends at least partially upon one's functional position within the organization.

Another explanation may be that the personal characteristics of the respondents influence their attitudes toward whether the merit system has increased self or group productivity. For example, does the sex, race, education level, or salary of an employee influence his or her perceptions toward the system? The degree to which these personal factors may influence attitudes toward productivity are reported in Table 3.

Based on the correlations reported in Table 3, it appears that the sex, race, age, and length of service of an employee have little if any bearing on attitudes toward increases in self and group productivity as a result of the new merit system. The personal factors reported above have no statistical relationship toward perceptions of increased self-productivity, and only race and salary are correlated, albeit weakly, with perceptions of increased group productivity. Thus for all practical purposes, other factors than the personal characteristics of the respondents, such as functional responsibility within the organization, are more important predictors of how an employee will perceive a new merit system as affecting his or her performance levels.

Conclusions

This analysis suggests that a statistically significant variation in attitudes does exist toward the Biloxi merit bonus system as a stimulus of employee performance. The proposition that top management would be more supportive of the system and that middle managers would be somewhat skeptical is confirmed. Likewise the second proposition, which stated that top managers would exhibit stronger support for the merit system as a mechanism that does lead to increases in self and group productivity, appears to have some empirical credibility. The greatest variation exists between the attitudes of top-level and middle managers. By implication, middle managers seem to be more doubtful of the practicality and effectiveness of the system. Staff employees are somewhat ambivalent concerning

The proposition that top management would be more supportive of the system and that middle managers would be somewhat skeptical is confirmed.

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| Personal Characteristics | Perceive More Self Productivity | Perceive More Group Productivity |
|-------------------------------------|---------------------------------------|--|
| Sex of Respondent (Male to Female) | .02 | .04 |
| Race of Respondent (Black to White) | -.09 | -.10* |
| Salary of Respondent | -.03 | -.13* |
| Educational Level of Respondent | -.09 | -.09 |
| Age of Respondent | .01 | .01 |
| Tenure with City (years) | -.005 | .001 |

*Indicates a P value of .05 or less. N = 281.

Table 3: Zero order correlations between personal characteristics of Biloxi employees toward self and group productivity

| Performance Appraisal Score Category | Number of Employees |
|--------------------------------------|---------------------|
| 50 and below | 4 |
| 51 to 60 | 2 |
| 61 to 70 | 13 |
| 71 to 80 | 53 |
| 81 to 90 | 48 |
| 91 to 100 | 37 |
| Total | 157 |

Note: not all employees reported their actual performance score.

how well the merit bonus pay plan will work. To some extent, how positively staff employees regard the system is contingent upon their last merit evaluation score. The higher the merit score, the more positive the attitude toward the system.

These results raise some interesting points associated with the implementation of a merit pay plan. The mayor and top managers advocated the system as a means of stimulating greater productivity. Yet the actual implementation of the system fell mainly on the shoulders of middle management. Based on what the authors have learned, most middle managers were not consulted about the idea of the merit system during its conceptual stage of development, and with the exception of the merit councils, became actively involved with the system only when it was time to conduct the performance appraisals. Thus many middle managers felt detached from the development and implementation process, even though they were delegated the primary responsibility of putting the new system into practice.

Top managers simply assumed, in a causal context, that monetary bonuses would lead to increased productivity. So ingrained was this idea that many top managers would not acknowledge flaws and weaknesses apparent within the system. A type of merit bonus cognitive dissonance seemed to prevail among many of the top executives, perhaps precipitated in part by the fact that the top managers had too many sunk costs in the new system to admit failure. In a nutshell, a successful personnel reform such as performance appraisal requires a great deal of flexibility, trust, and communication between different levels of an organization. In the case of Biloxi, established value systems, policy decisions, and historical responsi-

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bilities associated with different levels of the city organization worked against substantial flexibility and open communication.

A second observation is that if middle managers are to be won over by merit pay plans, they must be given considerably more authority to modify the system to fit their specific organization needs, and to correct system problems as they see them emerge. During the evaluation stage in Biloxi, the mayor and department directors periodically intervened in the evaluation process to impose their views of a more impartial and equitable system. While some degree of upper level intervention may be warranted, too much can easily erode whatever limited interest and support merit systems have among middle managers. If anything, top managers should uphold the merit decisions of middle managers as long as this latter group of supervisors documents and justifies its decisions. Thus lack of initial input, extra work burdens, lack of top management communication during the initial implementation process, and periodic interference probably account for most middle management disenchantment with merit pay systems.

This research leads the authors to conclude that performance appraisal systems linked to merit bonuses do not necessarily lead to actual productivity increases. Top managers may want to believe this. As perceived by most staff employees, however, there is only moderate indication at best that monetary bonuses stimulate their individual and group performance. Middle managers generally do not find merit systems conducive to increased productivity. Perhaps what is needed is more intense involvement from participants at all organizational levels in merit system development from day one. Perhaps even more important is that once a new system is implemented, there must be frequent meetings to iron out the bugs as middle managers, staff employees, and top level managers perceive them. Although Biloxi did utilize quality control circles as the primary development mechanism for performance indicators, it did not require these merit councils to meet after the first evaluation period to seriously discuss the weaknesses of the system. Until organizations can achieve a relatively high consensus among all levels of employees concerning the effectiveness of a merit pay plan, the connection between merit pay and productivity is likely to remain more myth than reality.