

PERFORMANCE BASED PAY:
AN EMPIRICAL INVESTIGATION OF THE IMPACT
OF PERFORMANCE PAY INCREASES ON PERCEPTIONS CRITICAL
TO SUCCESSFUL MERIT PAY PROGRAMS

by

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CHAPTER I

INTRODUCTION

1.1 NATURE OF PROBLEM

In recent years government officials have come under increased pressure to do more with less. Citizens have demanded more and better government services; public employees have wanted higher wages and more benefits; and the "cost of everything has gone up." At the same time, the public has been unwilling in many cases to pay the additional taxes necessary to match these rising demands. This has left federal, state, and local officials in a quandry. How can government officials maintain or improve services and at the same time keep costs down?

One result of this pressure has been increased interest in ways to improve productivity. Many ways to improve productivity have been proposed. Two of the more popular productivity improvement programs deal with work standards and performance based pay (merit pay). Productivity programs involving work standards specify how long work activities should take to be completed. Merit pay programs involve rewarding employees based on how well they perform. Both these programs are employee-centered. Capital projects such as streets or sewers are high in cost but the major portion of a municipal budget is generally allocated to personnel

costs.¹ A city's ability to do more with less is strategically tied to the effectiveness of its employees.²

This study focused on performance based pay as a means of improving productivity and employee reaction to the implementation of a merit pay program. Several arguments for performance based pay in the public sector have been advanced: 1) it fosters greater accountability to citizens and elected officials, 2) it requires clearer definition of objectives and agreement on their importance, 3) more key results will be achieved, 4) the adoption of higher salary ranges occurs because importance of results is better understood and measured, and 5) it enables better identification of strong performers and weak performers which strengthens the management team.³ Assuming that merit pay is indeed capable of providing these benefits, why hasn't it been more successful where it has been tried? What are the requirements of successful merit pay programs? How do employees react to the implementation of a merit pay program? Questions such as these were addressed in this study.

¹ Richard Heimovics and F. G. Brown, "Municipal Employee Behavior As An Exchange Process," Midwest Review of Public Administration, Vol. 10, No. 4, (December 1976), p. 202.

² Richard B. Helwig, "Pay-for-Performance," Public Management, Vol. 61, No. 10, (October 1979), p. 10.

³ Helwig, p. 10.

1.2 PURPOSE OF STUDY

This was an exploratory study to investigate the impact of the size of performance pay increases on employee perceptions and attitudes critical to the success of merit pay programs. Attitudes critical to the success of merit pay programs were identified in the research literature. More specifically, this study attempted to determine whether employees who received above average performance pay increases would exhibit positive changes in perceptions or attitudes while employees who received below average performance pay increases would exhibit negative changes in perceptions or attitudes.

1.3 SIGNIFICANCE OF STUDY

Merit pay is often touted as a means of improving employee productivity. Yet the research literature suggests that the merit pay process is not without its problems. In many cases where merit pay has been tried, the federal government for example, there have been mixed reviews regarding its success. One of the reasons for any lack of success is a failure to understand how individuals perceive and react to the merit pay process.

There has been considerable research dealing with the requirements and benefits of successful merit pay programs. A comprehensive review of this literature indicates that it is largely theoretical in nature. While everyone says that

pay increases must be large enough to be meaningful if they are to motivate improved job performance, there is very little in the empirical research literature dealing with the size of meaningful pay increases and their impact on employee attitudes and perceptions.

A critical event in the merit pay process occurs when employees learn the size of their performance pay increase. At this point employees decide whether they have been treated fairly by the process. This assessment in large part determines whether employees will be motivated to improved performance or whether there will be negative consequences for the organization. This study investigated empirically the impact of size of performance pay increases on attitudes critical to the success of merit pay programs, an area not specifically dealt with in the literature. Hopefully, it will provide a valuable addition to the literature on merit pay as it examines employee reactions to performance pay increases. A better understanding of employee perceptions and reactions to merit pay is required if merit pay is to live up to its potential.

This study also has practical significance for organizations contemplating implementation of a merit pay program. The cost in terms of money, effort, and time of implementing a merit pay program can be quite large. Resources spent on implementation of a merit pay program

might be better spent, particularly when there can be no productivity improvement or even negative consequences. A better understanding of individuals in the process will help organizations decide whether a merit pay program is right for them.

1.4 DEFINITIONS

This section will define terms used in this study which are not defined in other sections. The term merit pay program, as used in this study, refers to a program where pay increases are based on job performance. A performance pay increase is simply a pay increase which is based solely on an individual's job performance as determined by a formal performance appraisal system. Performance pay increases are referred to as being either above or below average. To determine what an above or below average performance pay increase was, performance pay increases were rank-ordered within departments from high to low. The distribution of performance pay increases was then divided into thirds with the top third being above average and the bottom third being below average.

Meaningful pay increases are also referred to here. A meaningful pay increase is one which is perceived by the individual to be large enough to elicit a desired response. For example, the performance pay increase must be perceived as large enough by the individual if it is to

motivate improved job performance.

Performance appraisal content is the set of job specific tasks and related behavioral anchors which form the basis for appraisal of employee job performance. Performance appraisal administration refers to the actual implementation of the performance appraisal system. Administration includes such activities as supervisors rating employees and conducting the performance appraisal interview. Both performance appraisal content and administration are part of the formal performance appraisal process.

The terms perception and attitude are used throughout this study. While the two terms are not the same in a strict psychological sense, they are often used interchangeably in the research literature. For this reason, the terms perception and attitude are considered to be the same for the purpose of this study.

1.5 SUMMARY

Business and public organizations have come under increased pressure to do more with less. Merit pay has been advocated as a means of improving productivity. Unfortunately, merit pay is not without its problems and implementation of merit pay programs has often been unsuccessful. One reason for the mixed success of merit pay programs is a lack of understanding with respect to how

individuals react to the merit pay process. This study hopes to improve understanding as it investigates the impact of size of performance pay increases on attitudes critical to the success of merit pay programs, an area not specifically addressed in the research literature.

Chapter 2 reviews the research literature dealing with merit pay in order to identify attitudes critical to the success of merit pay programs. Research on the size of pay increases, study methodology, the research environment, hypotheses and research questions, data collection, and data analysis are discussed in detail. Findings are presented in Chapter 4 while Chapter 5 includes discussion, conclusions, and suggestions for future research.

Chapter II

LITERATURE REVIEW

2.1 INTRODUCTION AND GENERAL MODEL

There seems to be no end to the volume of published research dealing with the role of pay in motivating employee performance. Because of the magnitude of this literature, it is not practical to review it all here. For this reason, only the literature since 1971 is reviewed here.⁴

2.1.1 THE EXPECTANCY MODEL

The motivation model used in this study is the expectancy theory approach advocated by Lawler.⁵ The model postulates that motivation to perform at a given level is determined by two variables. The first variable is a person's belief concerning the probability that, if he puts effort into performing at some level, he will be able to perform at that level given he has the necessary equipment or conditions.⁶ This probability is known as "expectancy" (E → P).

⁴ A good review of the literature on using pay to motivate job performance prior to 1971 can be found in: Edward E. Lawler, Pay and Organizational Effectiveness: A Psychological View, (New York: McGraw-Hill Book Company, 1971), pp. 15-204.

⁵ Lawler, 1971, pp. 107-114.

⁶ The pronoun he is used here and throughout this study to denote either he or she.

Expectancy is a subjective probability which can vary from 1 (the effort will lead to performance) to 0 (the effort will not lead to the intended performance). According to Lawler, expectancy is influenced by two factors: 1) the subject's self-esteem and 2) the subject's previous personal and observed experience in similar and identical stimulus situations. In general, the higher the person's self-esteem and the more he has been able to perform effectively in similar situations, the higher will be his assessment of the probability that effort leads to performance. Individuals with extremely low self-esteem may distort reality and have high and unrealistic assessments that effort will lead to performance.

The second variable which influences motivation is a combination of beliefs about what the outcomes of accomplishing the intended level of performance will be and the valence of these outcomes. Instrumentality is the term used to refer to the belief that obtaining a desired level of performance will yield a particular outcome ($P \rightarrow O$). The belief that achieving a higher level of performance will result in higher pay is an example. Instrumentality is again a subjective probability which can vary from 1 (performance leads to outcome) to 0 (performance will not lead to outcome). Valence (V) is the term used to refer to the value an individual places on an outcome and can vary

from +1 (very desirable) to -1 (very undesirable). For example, a pay increase would generally be viewed as a very desirable outcome while a demotion would be viewed as an undesirable outcome.

Lawler argues that the products of all instrumentality times valence combinations $[(P \rightarrow O)(V)]$ should be summed together for all possible outcomes that are perceived to be related to a particular level of performance. The individual's perception that effort will lead to performance $(E \rightarrow P)$ and the net attractiveness of outcomes resulting from achieving the desired performance $[(P \rightarrow O)(V)]$ are said to combine multiplicatively. If either is zero, the individual will have no motivation to perform. Lawler's model suggests that a person will actually choose to perform well only if performing well is seen to lead to more positive or fewer negative outcomes than performing at some other level. For each possible level of performance, Lawler suggests an individual will make a subjective judgement about each of the probabilities. An individual can be expected to perform at the level which yields the highest summation $[(E \rightarrow P) \times \text{summation} [(P \rightarrow O)(V)]]$ score.

2.1.2 EXPECTANCY THEORY AND JOB PERFORMANCE

There are numerous tests of expectancy theory in the literature dealing with improving job performance. Similarly, the various components of expectancy theory are

frequently cited in research studies on the necessary conditions for merit pay to be successful. In a study of postal employees, Pritchard and Sanders found that the expectancy model predicted self-reported effort fairly well, but correlations with supervisory ratings of effort and performance were lower.⁷ Of the three components of the model, valence of job outcomes was the best predictor and support was given to the multiplicative relationship between valence and instrumentality.

In a study of incentive workers at a steel fabricating plant, Sheridan and Slocum studied whether the expectancy theory model was a valid predictor of job performance.⁸ Results indicated that the total expectancy model was a valid indicator of job performance, although the variances explained by various parts of the model were low. Schuster, Clark, and Rogers tested the Porter and Lawler model regarding the motivational role of pay with 800 professional employees.⁹ Their research confirmed two key hypothesis:

⁷ Robert D. Pritchard and Mark S. Sanders, "The Influence of Valence, Instrumentality, and Expectancy On Effort and Performance," Journal of Applied Psychology, Vol. 57, No. 1 (February 1973), p. 58.

⁸ John E. Sheridan and John W. Slocum, "Motivational Determinants of Job Performance," Journal of Applied Psychology, Vol. 59, No. 1 (February 1975), p. 121.

⁹ Jay R. Schuster, Barbara Clark, and Miles Rogers, "Testing Portions of the Porter Lawler Model Regarding the Motivational Role of Pay," Journal of Applied Psychology, Vol. 55, No. 3 (June 1971), p. 187.

1) the more that employees believe that performance factors influence pay, the harder they will work to improve their performance, and 2) individuals who see pay as a satisfier will try to perform more satisfactorily.

Reinharth and Wahba, in a study of the sales forces at four industrial organizations, found no support for the classical expectancy model or its components as a predictor of work motivation, effort expenditure, and job performance.¹⁰ Their study also found: 1) the results were inconsistent from company to company which might indicate that some combination of environmental or demographic differences in the various sample groups is a far more accurate predictor than the expectancy model or its components, 2) the aggregate expectancy model added only from 2.5 to 3 percent of the variance when the individual variables were forced to emerge first, which does not indicate very good predictive power, and 3) there were apparently certain sample groups whose preferences (valences) did have predictive power.

Belcher attempted to answer the question of whether expectancy theory provides a sufficient guide to compensation practice to secure a high level of

¹⁰ Leon Reinharth and M. Wahba, "Expectancy Theory As Predictor of Work Motivation, Effort Expenditure, and Job Performance," Academy of Management Journal, Vol. 18, No. 3 (September 1975), pp. 532-533.

performance.¹¹ Although expectancy theory is a cognitive theory which assumes that individuals think about whether effort is related to performance and whether performance is related to rewards, he argues that not all employees think about performance. For example, people who have always done their jobs the same way with satisfactory results may have little reason to think about expectancy relationships. On the other hand, upwardly mobile people dissatisfied with their current position could be expected to think more about expectancy relationships. Belcher concludes that expectancy theory is useful and is probably the best single model available. However, he warns it should not be considered to be the only route or even the best route to use.

The research literature dealing with motivating job performance with pay will now be reviewed. The emphasis is on factors affecting the success of merit pay programs. Research on motivating job performance with pay in both the private and public sectors is covered.

2.2 SUCCESSFUL MERIT PAY PROGRAMS

An indepth study of research findings reveals various issues which must be considered by an organization attempting to implement a successful merit pay program. These include: 1) the value of pay as a reward, 2) the

¹¹ David W. Belcher, "Pay and Performance," Compensation Review, Vol. 12, No. 3 (Third Quarter 1980), p. 16.

effect of pay on intrinsic motivation, 3) the perception that pay is tied to performance (instrumentality), 4) the perception that effort leads to performance (expectancy), 5) the size of meaningful pay increases, 6) the ability to measure performance accurately, 7) the level of trust and communication, 8) the effect of goals on incentives, and 9) other less frequently cited considerations including such things as presence of a union or organization size and structure.

2.2.1 PAY AS A VALUED REWARD

For money to motivate improved job performance, money must be a reward valued by employees.¹² There is research support for money as a reward. Dyer, Schwab, and Fossum have argued that money is probably the single most important reward that an organization has to work with.¹³ They also pointed out that most organizational attempts to use pay to motivate job performance fail, indicating that

¹² Samuel R. Collins, "Incentive Programs: Pros and Cons," Personnel Journal, Vol. 60, No. 7 (July 1981), p. 571; O. Gene Dalaba, "Misuses of compensation as a motivator," Personnel, Vol. 50, No. 5 (September-October 1973), p. 30; Fred S. Hills, "The Pay-for-performance Dilemma," Personnel, Vol. 56, No. 5 (September-October 1979), p. 29; William J. Kearney, "Pay for Performance? Not Always," MSU Business Topics, Vol. 27, No. 2 (Spring 1979), p. 6; Lawler, 1971, p. 91.

¹³ Lee Dyer, Donald Schwab, and John Fossum, "Impacts of pay on employee behaviors and attitudes: an update," Personnel Administrator, Vol. 23, No. 1 (Jan 1978), p. 51.

organizations are failing to capitalize on one of their best motivational tools. Kopelman found that pay tied to performance is the most powerful motivator of improved work performance.¹⁴ Piamonte argued that administered correctly, pay is the best way to encourage high performance.¹⁵

Schuster found some differences do exist between managers in public and private sector organizations with respect to valued rewards.¹⁶ Promotions, challenging assignments, cash bonuses, larger pay increases, and more verbal praise are valued by managers regardless of whether they are in the public or private sector. In the private sector, valued nonfinancial rewards include more autonomy, more responsibility, and the ability to do your own thing. In the public sector, valued nonfinancial rewards included more paid time off, sabbatical leave, more job security, and travel first class.

In another study of factors that motivate public and private sector managers, Nowlin found that both public and

¹⁴ Richard E. Kopelman, "Linking pay to performance is a proven management tool," Personnel Administrator, Vol. 28, No. 10 (October 1983), p. 63.

¹⁵ John S. Piamonte, "In Praise of Monetary Motivation," Personnel Journal, Vol. 58, No. 9 (September 1979), p. 597.

¹⁶ Jay R. Schuster, "Management-Compensation Policy and the Public Interest," Public Personnel Management, Vol. 3, No. 6 (November-December 1974), p. 517.

private sector managers perceived the work itself and responsibility as the top motivators.¹⁷ Nowlin's study indicated that both public and private sector managers view money as a motivator. Newstrom, Reif, and Monczka found only two major differences between public and private sector employees with respect to what motivates them.¹⁸ Security was found to be a significantly less important reward by public employees than by employees in the private sector. It was found that employees in the public sector were more satisfied with security as an organizational reward. This could be the result of public employees perceiving that they already have security. Similarly, direct economic benefits such as salary or incentive plans were judged to be significantly less important by public employees. It was argued that these two findings imply that the public employees participating in this study have moved beyond the basic physiological and security needs as primary motivators. These findings are consistent with the Maslow hypothesis that satisfied needs cease to be primary motivators.

¹⁷ William A. Nowlin, "Factors That Motivate Public and Private Sector Managers: A Comparison," Public Personnel Management, Vol. 11, No. 3 (Third Quarter 1982), p. 226-227.

¹⁸ John W. Newstrom, William E. Reif, and Robert Monczka, "Motivating the Public Employee: Fact vs. Fiction," Public Personnel Management, Vol. 5, No. 1 (January-February 1976), pp. 69-70.

2.2.2 EFFECT OF PAY ON INTRINSIC MOTIVATION

The support of pay as a motivator is by no means unanimous. Hills has argued that the "pay for performance" model was flawed because it failed to take into account the essential nature of motivation.¹⁷ Pay for performance fails to take into account that people are often intrinsically motivated to do a job well. He argues that this has serious implications for reward systems that attempt to tie pay to performance. If people want to contribute, whether because of some innate or learned drive, there is really no need to tie pay to performance. Given that performance is a function of ability and effort, and motivation is already present, it follows that differential performance is a function of differential ability. Pay for performance is then rewarding differential ability rather than differential motivation. Thus "pay for performance" most likely does not affect motivation.

According to Deci, an individual's intrinsic motivation to perform is decreased by contingent monetary benefits, threats of punishment for poor performance, or negative feedback about performance.²⁰ Deci found that to use

¹⁷ Hills, pp. 27-28.

²⁰ Edward L. Deci, "Effects of Externally Mediated Rewards On Intrinsic Motivation," Journal of Personality and Social Psychology, Vol. 18, No. 1 (April 1971), p. 114; Edward L. Deci, "The Effects of Contingent and Noncontingent Rewards and Controls On

rewards as an extrinsic motivator of performance, the rewards must be contingent upon performance. Unfortunately, making rewards contingent upon performance decreases intrinsic motivation. There is a trade-off between the effects of rewards on intrinsic and extrinsic motivation. An organization must determine whether the increment in extrinsic motivation increase is greater than the concomitant decrease in intrinsic motivation.

In a study of male and female college students, Pritchard, Campbell, and Campbell found that contingent extrinsic rewards did indeed decrease intrinsic motivation.²¹ They argued that while extrinsic rewards may decrease a determinant of intrinsic motivation (for example, feelings of self-determination, task challenge, self-esteem, etc.), extrinsic rewards do not directly decrease intrinsic motivation. This implies that intrinsic and extrinsic motivation are not dependent, but where extrinsic rewards affect a variable related to intrinsic motivation, intrinsic motivation will change.

Intrinsic Motivation," Organizational Behavior and Human Performance, Vol. 8, No. 2 (October 1972), pp. 223-227; Edward L. Deci, "The Hidden Cost of Rewards," Organizational Dynamics, Vol. 4, No. 3 (1976), p. 69.

²¹ Robert D. Pritchard, K. M. Campbell, and D. J. Campbell, "Effects of Extrinsic Financial Rewards on Intrinsic Motivation," Journal of Applied Psychology, Vol. 62, No. 1 (1977), pp. 13-14.

In considering the effects of extrinsic rewards on intrinsic motivation, Notz came to several conclusions: 1) it can be said with virtual certainty that under certain conditions, intrinsic and extrinsic motivation have been found to be nonadditive, and 2) with less certainty, and again under certain conditions, the interaction appears to be symmetrical.²² Notz points out that the existing theoretical structure and current empirical results do not allow us to specify exactly what these conditions are. Reif points out that not all workers perceive organizational rewards the same and any organizational reward system based solely on money at one extreme or solely on intrinsic motivation at the other extreme, is not likely to lead to optimal use of human resources.²³

2.2.3 INSTRUMENTALITY

Just as it is important that individuals have a high valence for pay, it is also important that workers perceive that rewards are tied to performance. It is well documented that workers must perceive pay as tied to performance if pay

²² William W. Notz, "Work Motivation and the Negative Effects of Extrinsic Rewards," American Psychologist, Vol. 30, No. 9 (September 1975), p. 890.

²³ William E. Reif, "Intrinsic Versus Extrinsic Rewards: Resolving the Controversy," Human Resource Management, Vol. 14, No. 2 (Summer 1975), p. 9.

is to motivate job performance.²⁴ Kopelman argued: 1) the stronger the performance-reward relationship, the higher will be the average organization-wide level of work motivation, and 2) the stronger the performance-reward relationship, the more likely that high-performing employees will be retained.²⁵ Hamner posited that there were several reasons why managers fail to see pay as being tied to performance: 1) many rewards such as stock options are deferred payments, 2) the goals of the organization on which performance appraisals are based are unclear, unrealistic, or unrelated to pay, and 3) the secrecy that surrounds annual merit increases may lead managers to conclude that their pay increase is not related to performance.²⁶

Kopelman and Reinharth studied the effects of merit-pay practices on white collar performance, finding: 1) the presence of a strong positive relationship between the relative strength of the performance-reward correlation and

²⁴ Collins, p. 571; Dalaba, p. 30; Dyer, Schwab, and Fossum, p. 53; Goldberg, p. 21; W. Clay Hamner, "How to ruin motivation with pay," Compensation Review, Vol. 7, No. 3 (Third Quarter 1975), p. 18; Hills, p. 29; Lawler, 1971, p. 91; Edward E. Lawler, "Merit Pay: Fact or Fiction?" Management Review, Vol. 70, No. 4 (April 1981), p. 51; Gene Milbourn, "The Relationship of Money and Motivation," Compensation Review, Vol. 12, No. 2 (Second Quarter 1980), p. 34; Kearney, p. 5.

²⁵ Kopelman, p. 62.

²⁶ Hamner, p. 19.

average levels of performance in organizational subunits and 2) the relative strength of the performance-reward correlation are more strongly related to subsequent levels of performance in organizational subunits than to concurrent levels of performance.²⁷ The authors concluded that merit pay systems which tie performance more closely to rewards and incorporate a wide range of possible salary increases will tend to generate higher levels of performance.

2.2.4 EXPECTANCY

Research supports the importance of employees believing that effort will lead to performance.²⁸ However, additional effort does not automatically result in improved job performance. Belcher argues individuals may not possess the necessary knowledge, skills, or abilities to perform a task successfully.²⁹ For example, mistakes in selection (resulting in low ability) could prevent an individual from successfully completing a task.

²⁷ Richard E. Kopelman and L. Reinharth, "Research Results: The Effect of Merit Pay Practices on White-Collar Performance," Compensation Review, Vol. 14, No. 4 (Fourth Quarter 1982), pp. 32-39.

²⁸ Collins, p. 571; Dalaba, p. 31; Hills, p. 29; Kearney, p. 5; Lawler, 1971, p. 91.

²⁹ David W. Belcher, Compensation Administration. (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1974), p. 59.

2.2.5 SIZE OF MEANINGFUL PAY INCREASES

Research indicates that it is not enough simply to value pay as a reward. A pay increase must be large enough to be meaningful.³⁰ There must be a substantial difference between the magnitude of the pay increase paid the low performance workers and that paid the high performance workers or else the high performance employees will see little reason to excel, assuming they are motivated by money.³¹ Giles and Barrett, in a study of professional employees, found that there was a great deal of variability in individual responses to merit increases.³² This suggests that personality variables may be an important determinant of employee perceptions of merit increases. They also found that each additional dollar of merit

³⁰ E. James Brennan, "The Merits of Merit Pay For Teachers," Personnel Administrator, Vol. 25, No. 5, (May 1980), pp. 16-17; Brinks, J. T., "Is There Merit in Merit Increases," Personnel Administrator, Vol. 25, No. 5 (May 1980), p. 59; Collins, p. 575; Robert J. Greene, "Thoughts on compensation management in the 80's and 90's," Personnel Administrator, Vol. 25, No. 5 (May 1980), p. 28; Hills, p. 29; Kearney, p. 9; Kopelman and Reinharth, p. 40; Kopelman, p. 65; Lawler, 1981, p. 51; John D. McMillan and Thomas E. Shea, "Why Many Management Incentive Plans Don't Work," Management Review, Vol. 72, No. 11 (November 1983), p. 49; Milbourn, p. 43; Piamonte, p. 599.

³¹ Kopelman and Reinharth, p. 40; Kopelman, p. 65; Lawler, 1981, p. 51.

³² B. A. Giles and G. V. Barrett, "Utility of Merit Increases," Journal of Applied Psychology, Vol. 55, No. 2 (1971), p. 108.

had increased utility in contrast to the accepted economic principle of diminishing returns which would argue that money will motivate only up to a certain point.

Krefting and Mahoney found that what constitutes a meaningful pay increase depends on the significance of the pay increase to the individual.³³ For individuals valuing pay increases as a sign of organizational recognition, the size of a meaningful pay increase is a function of expected pay increase and anticipated changes in the cost of living. The size of a meaningful pay increase for those who value pay increases for the money is a function of expected changes in the cost of living, last pay increase, and pay satisfaction.

Meyer has argued that a merit pay salary plan is likely to have the effect of threatening the self-esteem of the great majority of employees.³⁴ The rationale behind this argument is that a majority of employees will rate themselves as above average employees whether they are or not. When they receive a small merit pay increase based on a performance evaluation which was much lower than their self-appraisal, their self-esteem is diminished. Meyer

³³ Linda A. Krefting and Thomas A. Mahoney, "Determining the Size of a Meaningful Pay Increase," Industrial Relations, Vol. 16, No. 1 (February 1977), p. 90.

³⁴ Herbert H. Meyer, "The Pay For Performance Dilemma," Organizational Dynamics, Vol. 3, No. 3 (Winter 1975), p. 42.

states that one possible outcome of this reduced self-esteem is downgrading the importance of the activity on which the threat is focused. For example, an individual is told that he is a poor parts assembler. He is likely to cope with this threat to his self-esteem by denying that being a good parts assembler is important. Another possible outcome is disparaging the source of the criticism. Both outcomes are counterproductive to both the individual and the organization. This position is supported by Hamner and Brinks.³⁵

Hechler and Weiner, in a study of undergraduate college students, investigated the effect of expected pay and chronic self-esteem on quality and quantity of performance.³⁶ They found that: 1) pay incentives can increase work quality of low self-esteem individuals, but are superfluous to the work quality of high self-esteem individuals, 2) high self-esteem individuals will generally manifest higher quality work than low self-esteem, and 3) pay incentives, when contingent upon performance, may generally be effective in improving both quality and quantity. These findings are in contrast to the findings of

³⁵ Brinks, p. 60; Hamner, p. 21.

³⁶ Peter D. Hechler and Y. Weiner, "Chronic self-esteem as a moderator of performance consequences of expected pay," Organizational Behavior and Human Performance, Vol. 11, No. 1 (February 1974), p. 104.

Meyer presented above.

Piamonte, Goldberg, and Brinks point out that one of the big problems with merit pay plans is that when developing a budget for the program, planners assume that there is a bell-shaped (normal distribution) performance population.³⁷ It may be argued that in many organizations this is not the case. In the event that an organization has more above than below average employees, individuals will not get what they expect.

Inflation also has an impact on what employees perceive as a meaningful pay increase.³⁸ Kearney has argued that a high inflation rate is the most critical factor which has the potential to jeopardize merit pay systems.³⁹ A high inflation rate has the effect of reducing the actual buying power of any pay increase. Hills suggested that it will be necessary for organizations to cope with inflation and merit pay simultaneously.⁴⁰ He further suggested that it would be best to keep COLA increases distinct from merit increases and to allocate money for each separately.

³⁷ Brinks, p. 60; Goldberg, p. 23; Piamonte, p. 624.

³⁸ Brinks, p. 60; Kearney, p. 12; Lawler, 1981, p. 53.

³⁹ Kearney, p. 12.

⁴⁰ Hills, p. 30.

Goldberg pointed out that merit pay plans which involve awarding salary increases as a percent of base pay have the effect of giving, or denying, employees the same pay increase in subsequent years.⁴¹ This has the effect of perpetuating any errors made in the process. It also establishes a new base pay level which employees come to accept as given. Lawler argued that, for this reason, bonus plans are usually better at relating pay to performance.⁴²

The research also suggests that the wage structure should be sufficiently large to allow pay for performance.⁴³ In addition to having a suitable wage structure, Farmer and Winstanley pointed out that it is essential for an organization to have a valid job evaluation system in force.⁴⁴ Job descriptions must be kept current and jobs properly evaluated. They stressed that this is an ongoing process by which all components of the system are kept current. Brinks stated that the

⁴¹ Goldberg, p. 24.

⁴² Lawler, 1981, pp. 50-51.

⁴³ Hills, p. 59.

⁴⁴ C. Richard Farmer, "Merit Pay: Viable?" Personnel, Vol. 55, No. 5 (September-October 1978), p. 59; Nathan B. Winstanley, "Are Merit Increases Really Effective?" Personnel Administrator, Vol. 27, No. 4 (April 1982), p. 37; William L. Mihal, "More research is needed: goals may motivate better," Personnel Administrator, Vol. 28, No. 10 (October 1983), p. 64.

cornerstone of any well designed merit system a well designed job evaluation and job classification system.⁴⁵

Lawler cited the growth of benefit programs as an obstacle to merit pay.⁴⁶ Compensation dollars that could have been spent on merit pay have been spent on benefits instead. He then argued that many of these benefits are not universally desired and the growth of employee benefits has weakened the link between pay and performance because cash is not available to reward exceptional performance. One possible solution to this problem might be basing benefits on employee performance. Foegen says that while benefits have traditionally been tied to everything but performance, now is the time to look at tying benefits to employee performance.⁴⁷ He suggested that firms pay huge amounts of money for which they get very little in the way of performance.

Silverman cited budget cuts as one of the reasons why merit pay has not been successful.⁴⁸ Prospects of

⁴⁵ Brinks, p. 64.

⁴⁶ Lawler, 1981, p. 52.

⁴⁷ J. H. Foegen, "Basing Benefits On Employee Performance," Administrative Management, Vol. 42, No. 11 (November 1981), pp. 62-63.

⁴⁸ Buddy Silverman, "Why the Merit Pay System Failed In Federal Government," Personnel Journal, Vol. 62, No. 4 (April 1983), p. 302.

reductions in force and furloughs resulting in reduced pay diluted any incentive to improve performance that merit pay might have brought about. Employees worried about losing their job and income for even a short period of time are unlikely to be motivated by a pay increase.

Schuster, Colletti, and Knowles found that differences existed between perceived utility of pay between public and private sectors.⁴⁷ It was found that in the public organization investigated, more money had more utility. This finding is consistent with the research of Giles and Barrett above. In the private organization studied, money had utility up to a certain point and then began to lose utility.

Godwin and Needham argued that a problem with merit pay in the public sector was the size of the merit increases that could be awarded.⁵⁰ Governments have tended to have salary ceilings at each grade level which limited the size of the pay increase which can be awarded.

⁴⁷ Jay R. Schuster, Jerome C. Colletti, and Lyle Knowles, "The Relationship Between Perceptions Concerning Magnitudes of Pay and the Perceived Utility of Pay: Public and Private Organizations Compared," Organizational Behavior and Human Performance, Vol. 9, No. 1 (February 1973), pp. 117-118.

⁵⁰ Phil Godwin and John Needham, "Reforming Reform - Challenging the Assumptions for Improving Public Employees Performance," Public Personnel Management, Vol. 10, No. 2 (Summer 1981), p. 241.

2.2.6 PERFORMANCE APPRAISAL

Closely related to the requirement that employees perceive pay is tied to performance is performance appraisal. The literature indicates a major criticism of merit pay programs is the inability to measure performance accurately.⁵¹ Brinks pointed out that this is particularly true for salaried employees.⁵² Many management jobs tend to be qualitative rather than quantitative in nature. Research studies show that merit pay plans should ideally be based on objective measures of performance rather than subjective measures (for example, cooperation or attitude).⁵³ Mihal stated that performance in service and process industries where there is an

⁵¹ Brinks, p. 59; Collins, p. 573; Farmer, p. 60; Goldberg, p. 23; Greene, 1980, p. 27; Robert J. Greene, "Incentive Compensation for Staff Managers," Compensation Review, Vol. 10, No. 1 (First Quarter 1978), p. 21; Hamner, p. 19,25; Arthur A. Handy, "Pay for Performance," Personnel Administrator, Vol. 17, No. 3 (May-June 1972), p. 28; Hills, p. 29; Raymond A. Katzell and Daniel Yankovich, "Pay vs. Work Motivation and Job Satisfaction," Compensation Review, Vol. 8, No. 1 (First Quarter 1976), p. 61; Kearney, p. 10; Kopelman, 1983, p. 68; Lawler, 1981, p. 50,52; M. E. Schnake, "Apples and Oranges: Salary Review and Performance Review," Supervisory Management, Vol. 25, No. 11 (November 1980), p. 33; Nathan B. Winstanley, "The Use of Performance Appraisal In Compensation Administration," Conference Board Record, Vol. 12, No. 3 (March 1975), p. 43; Winstanley, 1982, p. 38; Milbourn, p. 43; Mihal, p. 64.

⁵² Brinks, p. 59.

⁵³ Brinks, p. 60; Hamner, p. 19; Katzell, p. 61.

increased proportion of jobs is not easily defined and measured.⁵⁴ He also pointed out that technical, managerial, and professional jobs resist the kind of performance measurement necessary for a merit pay program. Hills stated that employee evaluations are typically not very reliable and are subject to a host of biases which threaten their validity.⁵⁵ If employees perceived that the performance evaluation system is biased or unfair, they would have little reason to believe that pay is tied to performance.

Kearney raised the question of whether managers really want to measure performance.⁵⁶ Managers know that performance evaluations will be used as the basis for determining pay increases. Managers also know that the information contained in the performance evaluation, which is responsible for a merit increase or lack of it, will be made known to employees. Kearney argued that it is one thing to provide negative information to someone that you will never see again, and quite another to provide it to someone with whom there is a long-term relationship. This can impact on the accuracy of the rating in that poor performance is evaluated above its true level.

⁵⁴ Mihal, p. 62.

⁵⁵ Hills, p. 29.

⁵⁶ Kearney, p. 11.

Kopelman suggested that organizations should define good performance in terms of reasonably high levels of accomplishment.⁸⁷ He argued that if managers do not expect much from subordinates, that is what they will get. Schnake pointed out that it is not advisable to conduct a salary review and a performance review at the same time.⁸⁸ Performance evaluations should serve as an employee development tool whereby the employee learns what is necessary to improve performance. When both performance and salary reviews are conducted at the same time, the employee is more concerned about the size of the pay increase than what has to be done to improve performance in the future. Separating the review allows the discussion during the performance review to focus only on performance and thus is a better development tool.

Winstanley argued that trained managers are essential to a successful merit pay program.⁸⁹ This is particularly true as it pertains to feedback. The success with which a manager conducts a performance/salary increase review can affect attitudes toward both the appraisal and the increase. Training in all aspects of the performance evaluation system is important.

⁸⁷ Kopelman, 1983, p. 68.

⁸⁸ Schnake, p. 34.

⁸⁹ Winstanley, 1982, p. 38.

Lovrich, Shaffer, Hopkins, and Yale raised the question of whether public servants welcome or fear merit evaluation of their performance.⁶⁰ In a study of Washington State employees drawn from the state's 59 major departments, the researchers investigated employee attitudes toward the effect of a "good" performance on individual performance, agency effectiveness, and employee morale. Results indicated that three out of four employees felt that a good performance evaluation system will enhance individual performance, agency effectiveness, and employee morale.

According to Silverman, performance appraisal problems are one of the reasons why merit pay is not working in the federal government.⁶¹ He argued that before merit pay, appraisals focused mainly on exceptionally outstanding or unsatisfactory employees and it required documentation to justify rare or adverse awards. Merit pay now forces management to keep extensive documentation on all employees. As a result there is reduced attention to the most important exceptional employees because of time devoted to unproductive surveillance of the routine.

⁶⁰ Nicholas P. Lovrich, P. L. Shaffer, R. H. Hopkins, and D. Yale, "Do Public Servants Welcome or Fear Merit Evaluation of Their Performance?" Public Administration Review, Vol. 40, No. 3 (May-June 1980), pp. 215-221.

⁶¹ Silverman, p. 294-295.

Landy, Barnes-Farrell, and Cleveland investigated the hypothesis that individuals who received high performance ratings would consider the process fair and accurate.⁶² In a study of 284 middle-level managers at a large manufacturing plant, the researchers found that perceptions of fairness or accuracy were not related to performance rating of respondent.

2.2.7 TRUST AND COMMUNICATION

Trust and communication are often linked together in the research literature dealing with merit pay.⁶³ Individuals are more likely to mistrust things they do not understand and communication facilitates understanding. Trust as used in the merit pay context can be defined as the belief that individuals will be treated fairly and in good faith throughout the merit pay process. For example, individuals believe that their supervisors will properly and fairly evaluate their performance. Communication refers to the free and open flow of information. Pay communication then refers to the free and open communication of information pertaining to the pay system. For example, the

⁶² Frank Landy, Janet Barnes-Farrell, and Jeanette Cleveland, "Perceived Fairness and Accuracy of Performance Appraisals: A Follow-Up," Journal of Applied Psychology, Vol. 65, No. 3 (June 1980), pp. 355 - 356.

⁶³ Collins, p. 573; Hamner, p. 25.

employer must thoroughly explain all aspects of a new merit pay system.

Trust is a requirement if merit pay programs are to be accepted by employees and have the intended motivational effects.⁶⁴ Brennan states that an underlying principle in successful performance appraisals is mutual trust between supervisors and subordinates.⁶⁵ Through this trust, he argues that management is better able to enforce merit rules and enforce their consistent application. Milbourn points out that pay should not be used to motivate when the level of trust between workers and managers is low or marginal.⁶⁶

The importance of communication to a successful merit pay program is also well established in the research literature.⁶⁷ Collins argued that there must be free and open communications between workers and management if employee commitment to the merit pay program is to be

⁶⁴ Brennan, p. 16; Collins, p. 573; Hamner, p. 22; Milbourn, p. 43; Winstanley, 1982, p. 37.

⁶⁵ Brennan, p. 16.

⁶⁶ Milbourn, p. 43.

⁶⁷ Collins, p. 573; Bernard Dwortzan, "The ABC's of Incentive Programs," Personnel Journal, Vol. 61, No. 6 (June 1982), p. 441; Farmer, p. 58; Hills, p. 29; W. H. Hrabak, "An Incentive Plan for Middle Management: A New Approach At International Harvester Company," Compensation Review, Vol. 10, No. 4 (Fourth Quarter 1978), p. 33; Lawler, 1981, p. 50; McMillan and Shea, p. 50.

obtained.⁶⁸ Farmer stressed the importance of improving salary communication stating that employers should inform employees what level of merit increase is normal at a given time.⁶⁹

2.2.8 EFFECT OF GOALS ON INCENTIVES

In a study of 81 college students, Pritchard and Curtis investigated the hypothesis put forward by Locke that financial incentives have no effect on behavior outside of their effects on goal setting.⁷⁰ Results of the study indicated that both incentives and goal setting have positive effects on performance and that the hypothesis presented by Locke is supported only when incentives are small.

Terborg and Miller investigated goal setting and monetary incentives in a study of 60 male college students performing construction tasks.⁷¹ Findings indicated that performance can be predicted from manipulating performance-

⁶⁸ Collins, p. 573.

⁶⁹ Farmer, p. 59.

⁷⁰ Robert D. Pritchard and Michael Curtis, "The Influence of Goal Setting and Financial Incentives on Task Performance," Organizational Behavior and Human Performance, Vol. 10, No. 2 (October 1973), pp. 180-182.

⁷¹ James R. Terborg and Howard E. Miller, "Motivation, Behavior, and Performance: A Closer Examination of Goal Setting and Monetary Incentives," Journal of Applied Psychology, Vol. 62, No. 1 (February 1978), p. 36.

pay contingencies and performance goals. It was shown that these motivation interventions have differential effects on effort and direction of behavior. Method of payment and goal setting independently affected motivation and performance indicating that goal-setting procedures should not replace financial incentives as a means of improving performance.

Kirkpatrick argued that management by objectives, a system in which subordinates and boss agree on objectives to be accomplished by some date in the future, should not be the basis for salary administration.⁷² He argued that, under a good salary administration program, an organization would be more concerned with what an individual did in relationship to others than in relationship to what he said he would do. An individual could be overly optimistic about objectives and fall short of reaching them even though his performance was better than someone who set less demanding objectives. Would the individual who met his objectives get a higher raise than the individual who did not even though he did less? Combining MBO and merit pay could also result in individuals setting goals as low as possible.

Murray and Kuffel conducted a study of the use of MBO

⁷² Donald L. Kirkpatrick, "MBO and Salary Administration," Training and Development Journal, Vol. 27, No. 9 (September 1973), pp. 3-5.

in the public sector.⁷³ A survey was administered to 126 top and middle-level administrators to determine their perceptions about the relationship between MBO and pay. Findings indicated that 72 percent perceived no strong relationship between attaining objectives and future compensation; 70 percent perceived no strong relationship between attaining objectives and future promotions. This was in a setting where the MBO process had been in use for about four years. The authors argued that these findings may be explained by the fact that all participants were under the civil service system which has a philosophy built on the premise that rewarding or punishing everyone equally is synonymous with rewarding or punishing everyone equitably.

Mobley summarized the arguments for and against linking MBO and merit compensation.⁷⁴ Arguments for the link include: 1) since MBO emphasizes establishing objectives which can be measured, it is a relatively more objective way to allocate financial rewards than more traditional approaches, 2) it allows establishment of a performance-

⁷³ Stuart Murray and Tom Kuffel, "MBO and Performance Linked Compensation In the Public Sector," Public Personnel Management, Vol. 7, No. 3 (May-June 1978), pp. 74-75.

⁷⁴ William H. Mobley, "The Link Between MBO and Merit Compensation," Personnel Journal, Vol. 53, No. 6 (June 1974), pp. 423-425.

reward contingency, 3) the link helps to insure that the management practices of MBO and merit pay do not work at cross purposes, and 4) it serves as a potentially powerful source of feedback. Arguments against the link include: 1) it encourages people to avoid difficult goals, 2) it may fail to reflect total performance by emphasizing the measurable to the exclusion of the more subjective, 3) it may be hard to evaluate the difficulty, challenge, or stretch in goals, 4) it is hard to equate goal difficulty levels among individuals, and 5) it may place undue emphasis on individual as opposed to team or unit performance. In a study of middle and top level managers of a large corporation using MBO, approximately 60 percent said there should be a link between MBO and merit. Mobley felt, in many cases, the arguments for the link outweighed those opposed to the link.

2.2.9 OTHER CONSIDERATIONS

Kearney pointed out that the presence of a union is a significant influence on an organization's decision to adopt a merit pay program.⁷⁹ Union contracts generally specify a single rate structure, or a range of rates, for jobs. This lack of flexibility makes it difficult, if not impossible, to make a merit pay plan work.

⁷⁹ Kearney, p. 11.

Lawler argued that organization size and structure can also be barriers to merit pay plans.⁷⁶ He pointed out that it is especially difficult to tie pay to performance in large organizations because many jobs in large companies are not related to the bottom line and thus often do not have clear performance goals or measures. New organization structures, such as the matrix organization, make it extremely difficult to measure performance of individual workers.

Farmer stated that merit pay programs should not be used as a catchall for rewarding employees for a multitude of justifiable pay elements such as overtime work.⁷⁷ He further argued that merit pay programs should not be used to remedy hiring-rate compression problems. Goldberg also pointed out that merit pay plans are often used for purposes that have nothing to do with individual performance.⁷⁸

McMillan and Shea suggested that a problem with merit pay plans was the temptation to make ad hoc adjustments.⁷⁹ While conceding that some flexibility is desirable, in most cases management would be better off to make only rare adjustments. Regular adjustments generally indicated a

⁷⁶ Lawler, 1981, p. 52.

⁷⁷ Farmer, p. 61.

⁷⁸ Goldberg, p. 23.

⁷⁹ McMillan and Shea, p. 50.

poorly designed plan.

2.3 SUMMARY

The research literature indicates that there are certain requirements which must be met if pay is to be used to motivate job performance. First, pay must be a reward valued by the employees. Individual differences notwithstanding, the literature indicates that pay is a valued reward by both public and private sector employees. A second requirement is that pay be tied to performance. It is absolutely essential that employees perceive pay increases as being tied to performance. Closely related to instrumentality is the requirement that performance differences can be measured. The literature points out that employees will have very little reason to perceive pay as being tied to performance if they believe that their performance is not being accurately measured. A poor performance evaluation system not only defeats the purpose of a merit pay program, it can also act as a demotivator in its own right.

It is also stressed in the literature that workers must believe that effort will lead to performance. Workers must have the necessary knowledge, skills, and abilities to successfully perform a task. Workers must also feel that desired levels of performance are within their control before they will direct their behaviors to achieve that

level of performance.

High levels of trust and good communication are also essential to an effective merit pay program. Trust is necessary if employees are to accept the system and good communication is essential to development of trust. Two other requirements of a successful merit pay program are pay increases large enough to be meaningful and employees are not intrinsically motivated to do a good job. Just attaching value to pay is not enough. Pay increases must be large enough to have utility to the individual and what is large enough to be meaningful depends on the individual. Research also indicates that extrinsic rewards can lessen intrinsic motivation to perform well. This literature review has identified and discussed the major issues related to successful implementation of merit pay programs. With the exception of the study by Landy, Barnes-Farrell, and Cleveland, dealing with employee reactions to performance appraisal, no studies were identified which specifically dealt with the major research question addressed in this study. The literature review did serve to identify employee perceptions critical to the successful implementation of a merit pay program. These critical perceptions form the basis for hypotheses presented in Chapter 3. The next chapter presents the research questions and hypotheses which were addressed in this study. Survey instrument

development, the research site, data collection, and data analysis are also discussed.

Chapter III

METHODOLOGY

3.1 INTRODUCTION

This chapter includes a discussion of: 1) the research environment, 2) hypotheses and research questions addressed in the study, 3) data collection, 4) data analysis, and 5) study limitations and delimitations.

3.2 RESEARCH ENVIRONMENT

A small city with a population of 30,000 in a middle Atlantic state was the study site for this project. At the time of the study, the city employed 224 people, including 57 in the public works department, 67 in the police department, 17 in the finance department, 10 in the recreation department, 4 in the planning department, 66 in transit, and 3 in management/legal. Sixty of the 66 transit employees were part-time workers. There were 26 probationary employees (individuals employed for less than six months). Of the 224 employees, 161 were male and 63 were female. Other demographic data (all city employees) included: 1) average age was 34.4 years, 2) average length of service was 5.7 years, and 3) average education was 12.9 years. Demographic characteristics of respondents used in analysis (individuals in above and below average performance pay groups) are presented in Chapter 4.

During the summer of 1983 the city began developing a new job and task specific performance appraisal plan for implementation in mid 1984. Employees and supervisors became involved in the development process, both in developing task lists for the various job classifications and in developing behaviors to anchor the rating scales. The product of the development process was a job specific set of tasks for each job classification within the city and behavioral descriptors to anchor the rating scale for each task. Employees and supervisors participated in a formal training program explaining the content and operation of the new system. A trial run of the new performance appraisal system was conducted in early 1984 simply to familiarize all parties with the process and identify potential problems. The new performance appraisal system was then implemented in May 1984.

Simultaneously, during the summer of 1983 the city manager, on city council directive, also undertook a study of its pay plan with the assistance of an external consultant. Based on the pay study Report, the city council chose to implement immediately a new merit pay program where pay increases would be based on performance as measured by the new performance appraisal system. Performance based pay increases were to be awarded for the first time on July 1, 1984. A performance pay pool equal to the amount

required to give each eligible employee an eight percent pay increase was distributed to each department in early June 1984. All employees, except probationary and those at or near the top of their pay grade, were considered to be eligible when allocating department pay pools. Department heads were to prepare a plan for their department which allocated the department pay pool to employees with pay increases ranging from zero percent to whatever the department head felt was appropriate.

There was considerable anxiety among employees about both the new performance appraisal and merit pay plans but the merit pay plan received the most criticism. Trust and morale were generally felt to be low. Two major changes were being implemented within the organization in a very short period of time. A focal point for employee concern was the plight of 11 individuals who were at the top of their pay grade and were scheduled to receive no pay raise regardless of how well they performed. These 11 employees had an average of 20 years service with the city. Several other employees near the top of their pay grade were eligible to receive only very small pay increases. This problem was resolved, not necessarily to the satisfaction of the employees, by making these individuals eligible to receive one-half what they would receive if they were not at the top of their pay range.

3.3 HYPOTHESES AND RESEARCH QUESTIONS

This section presents a brief discussion of hypothesis development as well as the hypotheses tested, with their related research questions. Survey items utilized to answer the research questions are summarized in Table 1. As emphasized in Chapter 2, pay increases must be large enough to be "meaningful" if merit pay is to motivate improved job performance. A critical event in the merit pay process occurs when employees learn the size of their performance pay increase. The impact of performance pay increases on employee attitudes critical to the success of a merit pay program has not been dealt with in the research literature.

Research on the impact of size of pay increases on employee attitudes in general suggests that employees will respond negatively when receiving a smaller than desired performance pay increase. In order to explore the impact of performance pay increases, hypotheses were developed to test whether employee attitudes critical to the success of merit pay programs change following employees learning their performance pay increase as well as whether these changes in attitude vary directly with size of performance increases.⁸⁰

⁸⁰ The author wishes to express his appreciation to Dr. Frederick Hills, Department of Management, Virginia Polytechnic Institute & State University, for his help in the formulation of these hypotheses.

Hypotheses tested include:

H1. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward pay being tied to performance while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward pay being tied to performance.

RQ1a. What were the attitudes of employees who received below average or above average performance pay increases toward pay being tied to performance prior to learning their performance pay increase?

RQ1b. What were the attitudes of employees who received below average or above average performance pay increases toward pay being tied to performance after learning their performance pay increase?

H2. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward performance appraisal administration while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward performance appraisal administration.

RQ2a. What were the attitudes of employees who received below average or above average performance pay increases toward performance appraisal administration prior to learning their performance pay increase?

RQ2b. What were the attitudes of employees who received below average or above average performance pay increases toward performance appraisal administration after

learning their performance pay increase?

H3. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward their ability to perform well while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward their ability to perform well.

RQ3a. What were the attitudes of employees who received below average or above average performance pay increases toward their ability to perform well prior to learning their performance pay increase?

RQ3b. What were the attitudes of employees who received below average or above average performance pay increases toward their ability to perform well after learning their performance pay increase?

H4. Employee who receive above average performance pay increases will exhibit positive changes in perception toward performance appraisal content while employees who receive below average performance pay increases will exhibit negative changes in perception toward performance appraisal content.

RQ4a. What were the attitudes of employees who received below average or above average performance pay increases toward performance appraisal content prior to learning their performance pay increase?

RQ4b. What were the attitudes of employees who received below average or above average performance pay increases toward performance appraisal content after

learning their performance pay increase?

H5. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward trust in city management while employees who receive below average performance pays increases will exhibit negative changes in perceptions toward trust in city management.

RQ5a. What were the attitudes of employees who received below average or above average performance pay increases toward trust in city management prior to learning their performance pay increase?

RQ5b. What were the attitudes of employees who received below average or above average performance pay increases toward trust in city management after learning their performance pay increase?

H6. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward pay communication while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward pay communication.

RQ6a. What were the attitudes of employees who received below average or above average performance pay increases toward pay communication prior to learning their performance pay increase?

RQ6b. What were the attitudes of employees who received below average or above average performance pay increases toward pay communication after learning their

performance pay increase?

H7. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward the importance of pay while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward the importance of pay.

RQ7a. What were the attitudes of employees who received below average or above average performance pay increases toward importance of pay prior to learning their performance pay increase?

RQ7b. What were the attitudes of employees who received below average or above average performance pay increases toward importance of pay after learning their performance pay increase?

3.3 DATA COLLECTION

This section discusses the various aspects of survey instrument development and administration. Topics discussed include the survey instrument, data obtained from personnel records, and testing the survey instrument. Survey administration will also be discussed.

3.3.1 SURVEY INSTRUMENT

The first step was to develop an employee survey instrument. Scales to measure the attitudes of interest had to be identified in the literature or developed. The scales utilized in this research included: importance of

pay, 2) pay is tied to performance, 3) effort leads to performance, 4) performance evaluation content, 5) performance evaluation administration, 6) level of trust in city management, and 7) pay communication. Scales from the research literature were considered but found to be unsuited for use in this study.⁸¹ Reasons for unsuitability included: 1) scale length too long, 2) scales could not be found for attitude of interest, and 3) inability of city employees to understand scale items as evidenced in the pilot study. All scales utilized on the survey instrument were developed for this project.

To assess the importance employees attach to pay, workers were asked to rank seven items in the context of what they would consider most important in deciding whether to take a new job. The seven items included:

- _____ friendly coworkers
- _____ job security
- _____ opportunity for promotion
- _____ pay/wages
- _____ recognition for good work
- _____ type of work
- _____ working conditions

⁸¹ John D. Cook, Sue Hepworth, Toby Wall, and Peter Warr, The Experience of Work - A Compendium and Review of 249 Measures and their Use, (London: Academic Press, 1981), pp. 1 - 335.

Items were ranked from 1 to 7 with 1 being the most important to the employee. The rank an employee gave pay relative to the other items was used as a measure of the importance employees attached to pay.

Scales were also developed to measure employee perceptions about pay tied to performance (instrumentality), effort leads to performance (expectancy), performance appraisal content, performance appraisal administration, trust, and pay communication. A summary of hypotheses, research questions, and proposed scale items which will be utilized to answer the research questions is provided in Table 1. Individuals were presented with a series of statements with Likert type responses ranging from strongly agree to strongly disagree. Responses were scored from 1 (strongly agree) to 6 (strongly disagree) with appropriate reverse scored items.

Both weighted average and simple average methods were considered in determining how to compute scale scores. Due to the exploratory nature of the study and the difficulty of dealing with missing values in weighted scale scores, the simple average approach was used to calculate scale scores. Scale scores were computed by summing responses to scale items and then dividing the total by the number of scale items. In the event that one or more of the scale items was left blank, the scale score was

TABLE 1Hypotheses, Research Questions, and Proposed Scale Items

Hypotheses	Research Questions	Proposed Scale Items (Questionnaire Items)
H1	RQ1a	Section V-1,14,26
	RQ1b	Section V-1,14,26
H2	RQ2a	Section V-4,17,29,38,41
	RQ2b	Section V-4,17,29,38,41
H3	RQ3a	Section V-2,15,27,37
	RQ3b	Section V-2,15,27,37
H4	RQ4a	Section V-3,16,28,42
	RQ4b	Section V-3,16,28,42
H5	RQ5a	Section V-12,25,36
	RQ5b	Section V-12,25,36
H6	RQ6a	Section V-7,20,32
	RQ6b	Section V-7,20,32
H7	RQ7a	Section II
	RQ7b	Section II

computed by summing the responses to the remaining scale items and then dividing the total by the number of scale items actually used. Scale scores were not utilized unless at least half the original scale items were answered. For example, a six item scale had to have at least three items answered before the scale score was utilized. With the exception of importance of pay which is a single item, all scale scores contained at least two answered scale items.

3.3.2 PERSONNEL RECORDS

In addition to information obtained from the survey instrument, information on employees was obtained directly from personnel records. Information obtained from the personnel records included: 1) the employee's social security number, 2) the employee's annual performance appraisal score, and 3) the employee's performance pay increase. Individuals were also asked to put their social security number on the first page of the questionnaire. The social security number was used as a control mechanism to ensure that the same survey instruments were in groups for statistical analysis. It was explained to employees by the researcher and a representative of management that the social security number would be used only as a control mechanism and that employee responses would be confidential. While there was some concern expressed by participants in the study, most of the respondents did put their social

security number on the survey instrument.

3.3.3 TESTING THE SURVEY INSTRUMENT

The survey instrument was tested before being administered to employees. Once the initial draft of the survey instrument was developed, it was administered to several classes of undergraduate personnel management students (N=75) for comments on whether the questions were clear and easily understood. Input was also obtained from selected graduate students and faculty. Adjustments were made where necessary and a pilot study using eight employees of the research site city was conducted. The purpose of this pilot study was to identify problems prior to administering the survey instrument to all employees.

The group of employees used in the pilot study represented a cross section of the organization with respect to age, sex, education, job, and department. Employees were gathered together in a conference room, provided with an explanation of what was going on and instructions, and given a survey instrument to fill out. Upon all employees completing the survey instrument, a discussion was held in which employees were encouraged to point out any problems with the survey instrument and suggestions for improvement. Employees did provide good suggestions which were incorporated into the final version of the survey instrument.

3.3.4 SURVEY ADMINISTRATION

The survey was administered on two separate occasions to determine whether employee attitudes changed during implementation of the new merit pay plan. The first administration of the survey instrument (Wave 1) was conducted approximately one week before employees received their performance pay increases. Responses to Wave 1 were to serve as a benchmark against which responses in the second administration (Wave 2) could be compared. Wave 2 of the survey instrument was administered one week after employees learned their performance pay increase.

The same procedures were used in both administrations of the survey instrument. Schedules of times when the survey instrument could be filled out were distributed to departments. Employees were then encouraged by department heads and supervisors to attend one of the sessions at their convenience. Participation was not mandatory. Survey instruments were administered in a conference room in the city hall to employees attending the sessions. Four sessions per day were scheduled over a three day period for each of the two survey administrations. Employees attending the sessions numbered from one to 20 individuals. The purpose of the study and instructions for filling out the survey instrument were explained to each of the groups. Confidentiality of responses was stressed at the beginning

of each session by both the researcher and a representative of management who was present only at the introduction of the meeting. Questions relating to the survey instrument or how the data would be used were answered and then employees were given survey instruments. Employees were allowed as much time as necessary to fill out the survey instrument with most employees taking less than 30 minutes. The completed survey instruments were collected before any employees left the session.

3.4 DATA ANALYSIS

Factor analysis was utilized on the first administration of the survey instrument to determine the appropriateness of scales utilized in this study. Internal reliability coefficients were calculated for each of the scales. Factor loadings for scales and reliability coefficients are summarized in the next chapter.

Employees were classified by department according to whether they received above or below average performance pay increases. Differences between above and below average performance pay increases were studied in order to minimize the effect of the large number of performance pay increases near the overall mean on the means of the above and below average groups.

Before above or below average performance pay increases could be established, it was necessary to define average

performance pay increases. Several alternatives were considered in deciding what would be an average performance pay increase. These included: 1) the mean of the department plus or minus one standard deviation, 2) the mode of the department plus or minus one standard deviation, and 3) rank ordering the pay increases within a department and then defining the middle third as average. Using alternative 1 or 2 would entail throwing out approximately 68% of a limited number of usable responses and was deemed to be inappropriate.

Rank ordering the performance pay increases within each department was utilized because it allowed use of the majority of the responses. Individuals who received performance pay increases ranked in the upper third were considered to be above average while individuals who received performance pay increases ranked in the bottom third were considered to be below average. Performance pay increases were rank ordered within departments because performance pay increases were awarded on a departmental basis and individuals within departments were generally aware of what their fellow workers received.

Using social security numbers as a control mechanism, a data set was created which contained responses of employees who participated in both Wave 1 and Wave 2. Scale scores were then calculated for each perception of interest. A new

data set containing differences in scale scores between Wave 1 and Wave 2 was created. This final data set contained a difference score (Wave 2 scale score minus Wave 1 scale score) for each individual who responded to both Wave 1 and Wave 2. A negative difference score would indicate a negative change in perception while a positive difference score would indicate a positive change in perception. A zero difference score would indicate no change in perception. Also included in this data set is a classification as to whether individuals received an above or below average performance pay increase.

The data set containing difference scores and classification of above and below average performance pay increases was then used to test the hypotheses. The average difference score for each of the perceptions of interest was calculated for the above and below average performance pay increase groups. Using paired t-tests, the average difference scores were tested to see if they were significantly different from zero. A positive mean significantly different from zero would indicate a significant positive change in perceptions while a negative mean significantly different from zero would indicate a significant negative change in perceptions. Results of paired t-tests are summarized in Chapter 4.

3.5 STUDY LIMITATIONS AND DELIMITATIONS

This study had several limitations. First, there was no control group which made determination of causality very difficult. It was unrealistic to expect the organization to provide a control group which was not to receive pay increases. A second limitation was the short time frame over which the survey was administered. Wave 1 was administered one week prior to employees learning their performance pay increase and Wave 2 was administered one week after employees learned their performance pay increase. Requirements of the organization dictated that the two survey administrations be conducted over the short two week period. It was felt that this time frame was acceptable as there was a major event, the awarding of performance pay increase, between the survey administrations. And finally, sample size was not as large as desired. Individual responses to Wave 1 and Wave 2 were each high but sample size went down considerably when creating a data set containing individuals who responded in both Wave 1 and Wave 2. Factors contributing to this included such things as time of year (individuals of vacation during June and July) and schedule conflicts. Sample size was felt to be large enough for an exploratory study.

This study also has several delimitations. Several issues identified in the research literature as being

important to successful merit pay programs were not dealt with. These issues include the effect of pay on intrinsic motivation, the effect of goals on incentives, and employee perceptions of the pay system (such things as job evaluation, job classification, pay rates and pay satisfaction). The exploratory nature of the study and the need to reduce the scope of the project made it necessary to eliminate these issues from consideration at this time.

3.5 SUMMARY

The research environment for this study was a small city with a population of 30,000 in a middle Atlantic state. At the time of the study, the city employed 224 people. City management simultaneously attempted to implement new performance appraisal and merit pay plans. There was a great deal of concern among employees, particularly about the new merit pay plan. Hypotheses were developed to test whether employee perceptions of interest changed following employees learning their performance pay increase.

All scales utilized in the survey instrument were developed for this project. Scales utilized in this research measured employee perceptions relating to: 1) importance of pay, 2) pay being tied to performance, 3) effort leading to performance, 4) performance evaluation content, 5) performance evaluation administration, 6) trust in city management, and 7) pay communication. Individuals

were presented with a series of scale items with Likert type responses ranging from strongly agree to strongly disagree. Weighted scale scores were then computed using factor loadings as weights. In addition to information obtained in the survey instrument, employee information was obtained directly from personnel records. Information obtained from the personnel records included the employee's social security number and the performance pay increase.

The survey instrument was tested prior to administration to city employees. It was administered to several classes of students, selected graduate students and faculty, and to a group of eight city employees in a small pilot study. Input from the various groups was utilized in developing the final version of the survey instrument.

Once the survey instrument was finalized, it was administered to city employees on two separate occasions in order to determine whether employee attitudes changed during implementation of the merit pay plan. Wave 1 was administered one week prior to employees learning their performance pay increase and Wave 2 was administered one week after employees learned their performance pay increase. Survey administrations were conducted at the city municipal building and participation was not mandatory.

The chapter concludes with a discussion of data analysis. Factor analysis was performed on Wave 1 to

determine the appropriateness of scales. Factor loadings were utilized as weights in computing weighted factor scores. Employees were then classified by department as having received above or below average performance pay increases and a data set was created which contained employees who participated in both Wave 1 and Wave 2. Scale scores were calculated for responses in each wave and a data set was created which contained difference scores (Wave 2 scale score minus Wave 1 scale score). A paired t-test was then utilized to test whether average difference scores were significantly different from zero. Mean difference scores significantly different from zero would indicate significant changes in perceptions.

CHAPTER IV

RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter presents the major research findings of the study. Sample characteristics, scale development and content, and research findings relevant to the hypotheses are presented. Discussion of results, implications, and suggestions for future research are presented in Chapter 5.

4.2 SAMPLE CHARACTERISTICS

There were 100 respondents common to both Wave 1 and Wave 2 of the employee questionnaires. Analysis of size of performance pay increases for these 100 individuals resulted in the development of an "above average" performance pay increase group containing 25 individuals; a "below average" performance pay increase group contained 30 individuals. A summary of overall and departmental response rates for both Wave 1 and Wave 2 is presented in Table 2.

Demographic characteristics of all city employees were presented in Chapter 3. Only demographic characteristics of respondents in the above and below average performance pay increase groups are presented here. Information on age (Table 3), sex (Table 4), education (Table 5), department (Table 6), length of service (Table 7), and size of performance pay increase (Table 8) is presented.

TABLE 2Performance Based Pay Study:Response Rates for Total Population *

Category	Wave 1	Wave 2
Overall	143/214 (67%)	134/212 (63%)
Public Works	56/67 (84%)	57/67 (85%)
Police	33/57 (58%)	31/56 (55%)
Finance	16/17 (94%)	13/16 (76%)
Recreation	7/10 (70%)	6/10 (60%)
Planning	4/4 (100%)	4/4 (100%)
Transit	24/56 (43%)	20/56 (36%)
Manager Office	3/3 (100%)	3/3 (100%)

* These figures show number of usable responses as a percentage of city employees eligible to participate in the attitude survey.

The average age of the "above average" group was 34 years with the average age of the "below average" group being 40.4 years. Of the 25 respondents who received "above average" performance pay increases, 12 were male and 13 were female. In the "below average" group, 25 were male and five were female. Average education of the "above average" group was 13.7 years while average education of the "below average" group was 11.5 years. With respect to length of service, the mean length of service in the "above average" group was 5.3 years while employees in the "below average" group had worked for the city an average of 10.9 years. The average performance pay increase was 8.0% in the "above average" group and 4.7% in the "below average" group. Finally, the average pay rate was \$7.07 in the "above average" group and \$7.57 in the "below average" group.

4.3 SCALE CONTENTS

This section presents the results of factor analysis and content of scales. Factor analysis was performed on Wave 1 responses (N=143) to identify items to be included in scales. Principal component (rotation varimax) factor analysis was the method used. A summary of factor loadings is provided in Table 9.

TABLE 3Performance Based Pay Study:Age of Above/Below Average Group Respondents

<u>Age</u>	<u>Above Average</u>	<u>Below Average</u>
20-25	4	5
26-30	6	1
31-35	5	7
36-40	6	2
41-45	2	3
46-50	0	5
51-55	1	4
56-60	1	3
<u>Total</u>	<u>25</u>	<u>30</u>

TABLE 4Performance Based Pay Study:Sex of Above/Below Average Group Respondents

Sex	Above Average	Below Average
Male	12	25
Female	13	5
Total	25	30

TABLE 5Performance Based Pay Study:Education of Above/Below Average Group Respondents

<u>Years of</u> <u>School</u>	<u>Above</u> <u>Average</u>	<u>Below</u> <u>Average</u>
4		2
5		1
6		1
7		3
8	1	1
9	1	2
10	2	3
11	1	1
12	6	5
13		2
14	1	2
15	3	
16	7	4
17	3	2
18		1
Total	25	30

TABLE 6Performance Based Pay Study:Department of Above/Below Average Group Respondents

<u>Department</u>	<u>Above Average</u>	<u>Below Average</u>
Police	5	6
Public Works	6	17
Finance	5	4
Recreation	2	1
Planning	1	1
Transit	3	1
Manager Office	3	
Total	25	30

TABLE 7Performance Based Pay Study:Length of Service forAbove/Below Average Group Respondents

<u>Years of Service</u>	<u>Above Average</u>	<u>Below Average</u>
1-5	17	10
6-10	5	7
11-15	2	5
16-20	1	4
21-25		
26-30		3
31-35		1
<u>Total</u>	<u>25</u>	<u>30</u>

TABLE 8

Performance Based Pay Study:
Performance Pay Increase for
Above/Below Average Group Respondents

<u>Pay Increase</u>	<u>Above</u> <u>Average</u>	<u>Below</u> <u>Average</u>
2.0 - 3.0%		1
3.1 - 4.0%		13
4.1 - 5.0%		1
5.1 - 6.0%		9
6.1 - 7.0%		6
7.1 - 8.0%	20	
8.1 - 9.0%	5	
<u>Total</u>	<u>25</u>	<u>30</u>

TABLE 9

Performance Based Pay Study:Factor Loadings

Factor Name	Item	Factors						
		1	2	3	4	5	6	7
=====								
Instrumentality	32	.621	.129	.128	.160	.097	-.253	-.056
	14	.588	.063	.150	.130	.161	-.120	.103
	1	.574	.207	-.008	-.102	.274	-.058	.181
	26	-.727	-.173	.024	-.077	.050	.106	.078
	38	.434	.455	.100	.221	.135	-.121	-.137
	25	.410	.079	.008	.114	.698	-.110	-.068
Perform Appraisal Administration	17	.290	.582	.089	.117	.117	.164	-.220
	12	.212	.577	.186	.124	.017	.064	-.268
	38	.434	.455	.100	.221	.135	-.121	-.137
	29	-.047	-.492	.054	-.058	-.059	.135	.020
	4	-.159	-.526	.037	-.155	-.137	.068	-.163
	41	.036	-.611	-.205	-.087	.017	.124	-.223
Expectancy	2	.058	.030	.805	-.149	.010	-.044	-.158
	27	.048	-.067	.709	.113	.092	.009	.115
	15	.088	.112	.461	.041	-.101	-.171	-.192
	37	-.014	-.143	-.641	.021	-.064	.013	-.022
Perform Appraisal Content	28	.220	.210	-.014	.615	.124	.021	-.224
	16	.289	.283	.203	.592	-.025	-.189	-.068
	42	.142	.066	-.122	.566	.323	.009	-.171
	3	-.051	-.128	.016	-.597	-.003	.096	-.069
Trust in City Management	36	.023	.162	.098	.087	.716	-.110	-.068
	25	.410	.078	.008	.113	.698	-.054	.002
Pay Commo	20	-.286	-.073	-.113	-.054	.006	.666	.126
	7	.192	.138	.058	.146	.231	-.577	-.070
Pay Importance	II	.035	.010	-.061	-.079	-.047	.110	.482
=====								
Variance explained		2.46	2.14	2.03	1.71	1.42	1.07	0.71

Seven factors were identified in factor analysis. These seven factors were used as the basis for construction of scales utilized in the analysis. Survey items loading at 0.4 and above were included in scales. The 0.4 cutoff (explains 16% of the variance) was felt to be appropriate due to the exploratory nature of the study. Items loading in more than one scale were included in each of the scales they exceeded the cutoff. Utilizing all items in a particular factor that exceed the cutoff increases the amount of variance explained by the factor. The scales identified and used in this analysis included:

- instrumentality
- performance appraisal administration
- expectancy
- performance appraisal content
- trust in city management
- pay communication
- importance of pay

A summary of proposed scales, factor analysis indicated scales, and internal reliability coefficients (Cronbach Alpha) is presented in Table 10. Scale content (questionnaire items) for each perception of interest is presented below.

4.3.1 INSTRUMENTALITY

Factor analysis indicated scale the items for instrumentality included:

- * The town's new pay system will reward good work.
 - * Under the new pay system, people that perform well will receive higher pay increases.
- I trust the Town Manager to treat me fairly.
- * Pay increases under the new pay system will not be based on performance.

I know what I have to do to get a pay increase under the new pay system.

The performance evaluations are administered fairly.

The internal reliability coefficient (Cronbach alpha) for this scale was 0.8162. The proposed scale items for instrumentality had included those items noted with an asterisk (*).

4.3.2 PERFORMANCE APPRAISAL ADMINISTRATION

Factor analysis indicated that scale items for performance appraisal administration should include:

- * It is easier for some employees to get a high performance evaluation from supervisors than it is for others.
- I trust my supervisor to treat me fairly.
- * My supervisor accurately evaluates my performance.
 - * My supervisor allows friendship to influence performance evaluations.
 - * The performance appraisals are administered fairly.

* It is easier to get a high performance evaluation from some supervisors than it is from others.

The internal reliability coefficient for this scale was 0.7406. The proposed scale items had included those items noted above with an asterisk (*).

4.3.3 EXPECTANCY

Factor analysis indicated the following scale items for expectancy:

I can complete all my job assignments if I work hard.

If I make the effort, I can do my job well.

If I make the effort, I can get my job assignments completed on time.

There is not enough time to do my job right.

The proposed scale items were the same as factor analysis indicated scale items. Internal reliability for the expectancy scale was 0.7400.

4.3.4 PERFORMANCE APPRAISAL CONTENT

Factor analysis indicated scale items for performance appraisal content included:

The tasks on which I am evaluated do not accurately describe what I do on my job.

The tasks on which I am evaluated accurately describe what I do on my job.

I am satisfied with the task list used to evaluate my job performance.

The weights assigned to the tasks used to evaluate my job performance accurately describe how important the tasks are in the performance of my job.

The proposed scale items were identical to factor analysis indicated scale items. The internal reliability coefficient for this scale was 0.7719.

4.3.5 TRUST IN CITY MANAGEMENT

Factor analysis indicated scale items for trust in city management should include:

I trust the City Manager to treat me fairly.

I trust the City Council to treat me fairly.

Internal reliability for the factor analysis indicated scale was 0.7196. The proposed scale items had included the above items as well as one additional item: "I trust my supervisor to treat me fairly".

4.3.6 PAY COMMUNICATION

Factor analysis indicated that the scale for pay communication should include two items:

The new pay system was adequately explained to employees.

I know very little about how pay increases are determined under the town's new pay system.

Internal reliability for pay communication was 0.6867. The proposed scale items had included both these items. In addition to these two items, the proposed scale had also included: "I know what I have to do to get a pay increase

under the new pay system".

4.3.7 PAY IMPORTANCE

The importance employees attached to pay was measured by asking employees to rank job characteristics such as pay/wages and opportunity for promotion. That rank indicated the value employees placed on pay. Factor analysis indicated that the single item for pay importance did load by itself. As this was a single item scale, internal reliability was not relevant in this case.

4.4 RESEARCH FINDINGS RELEVANT TO HYPOTHESES

This section presents research findings related to Hypotheses H1 through H7. Table 10 summarizes Hypotheses t-test results. Analysis of the information in Table 11 indicates that no hypothesis was completely supported. Due to the exploratory nature of this study, findings are considered significant if $PR > |t| = 0.10$. Implications of findings will be discussed in the next section. Research findings related to hypotheses included:

H1. Employees who receive above average performance pay increases will exhibit positive changes in perception toward pay being tied to performance while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward pay being tied to performance.

TABLE 10Performance Based Pay Study:Proposed/Actual Scale Content

Factor	Scale Name	Actual Scale/ Proposed Scale Items*	Cronbach
1	Instrumentality	V - 1 14 25 26 32 38/ V - 1 14 26	0.8162
2	Performance App Administration	V - 4 12 17 29 38 41/ V - 4 17 29 38 41	0.7406
3	Expectancy	V - 2 15 27 37/ V - 2 15 27 37	0.7400
4	Performance App Content	V - 3 16 28 42/ V - 3 16 28 42	0.7719
5	Trust in City Management	V - 25 36/ V - 12 25 36	0.7196
6	Pay Communication	V - 7 20/ V - 7 20 32	0.6867
7	Pay Importance	II/ II	N/A

* With the exception of Factor 7 (Pay Importance) which is in Section 2 (II) of the questionnaire, all scale items are in Section 5 (V).

Partial support was obtained for hypothesis H1. Employees who received "above average" performance pay increases did exhibit significant (at 0.10 level) positive changes in perception toward pay being tied to performance ($t = 1.84$, $PR > |t| = 0.0788$). Employees who received "below average" performance pay increases did not exhibit significant negative changes in perception toward pay being tied to performance ($t = 0.78$, $PR > |t| = 0.4422$).

H2. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward performance appraisal administration while employees who receive below average performance pay increases will exhibit negative changes in perception toward performance appraisal administration.

Analysis of Table 11 indicates that hypothesis H2 received partial support. Employees who received "below average" performance pay increases did exhibit significant (at 0.10 level) negative changes in perception toward performance appraisal administration ($t = 1.98$, $PR > |t| = 0.0574$). Employees who received "above average" performance pay increases did not exhibit significant positive changes in perception toward performance appraisal administration ($t = 1.06$, $PR > |t| = 0.3019$).

H3. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward their ability to perform well while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward their ability to perform well.

Hypothesis H3 received partial support. Employees who received "above average" performance pay increases exhibited significant (at 0.05 level) changes in perception toward their ability to perform well ($t = 3.20$, $PR > |t| = 0.0039$). Employees who received "below average" performance pay increases did not exhibit negative changes in perceptions toward their ability to perform well ($t = 0.09$, $PR > |t| = 0.9326$).

H4. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward performance appraisal content while employees who receive below average performance pay increases will exhibit negative changes in perception toward performance appraisal content.

This hypothesis received no support. Employees who received "above average" performance pay increases did not exhibit positive changes in perception ($t = 0.89$, $PR > |t| = 0.3829$) and employees who received "below average" performance pay increases did not exhibit negative changes in perception ($t = -1.14$, $PR > |t| = 0.2643$) toward performance appraisal content.

H5. Employees who receive above average performance pay increases will exhibit positive changes in , perceptions toward trust in city management while employees who receive below average performance pay increases will exhibit negative changes in perception toward trust in city management.

This hypothesis received no support. Employees who received "above average" performance pay increases did not exhibit significant positive changes in perception toward trust in city management ($t = -0.17$, $PR > |t| = 0.8698$) and employees who received "below average" performance pay increases did not exhibit significant negative changes in perception toward trust in city management ($t = 0.34$, $PR > |t| = 0.7387$).

H6. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward pay communication while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward pay communication.

This hypothesis received no support. Employees receiving "above average" performance pay increases did not exhibit significant positive changes in perceptions ($t = -1.04$, $PR > |t| = 0.3083$) toward pay communication. City employees who received "below average" performance pay increases did not exhibit significant negative changes in perception ($t = 0.49$, $PR > |t| = 0.6273$) toward pay communication.

TABLE 11Performance Based Pay Study:Hypotheses T-Tests

Hypotheses	Above Average t(PR > t)	Below Average t(PR > t)
H1	1.84 (0.0788)	0.78 (0.4422)
H2	1.06 (0.3019)	1.98 (0.0574)
H3	3.20 (0.0039)	0.09 (0.9326)
H4	0.89 (0.3829)	-1.14 (0.2643)
H5	-0.17 (0.8698)	0.34 (0.7387)
H6	-1.04 (0.3083)	0.49 (0.6273)
H7	0.20 (0.8399)	-1.49 (0.1473)

H7. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward importance of pay while employees who receive below average performance pay increases will exhibit negative changes in perception toward importance of pay.

This hypothesis received no support. Neither employees who received "above average" performance pay increases ($t = 0.20$, $PR > |t| = 0.8399$) nor employees who received "below average" performance pay increases ($t = -1.49$, $PR > |t| = 0.1473$) exhibited significant changes in perception toward importance of pay.

4.5 SUMMARY

Demographic characteristics of the "above average" performance pay increase group (25 respondents) and the "below average" performance pay increase group (30 respondents) were presented. Factor analysis resulted in identification of seven scales including instrumentality, performance appraisal administration, expectancy, performance appraisal content, trust in city management, pay communication, and importance of pay. Results of hypotheses t-tests indicate that no hypothesis was completely supported but several hypotheses (H3, H1, and H2) received partial support. Employees who received "above average" performance pay increases exhibited significant positive changes in perception toward both expectancy and instrumentality. Employees who received "below average"

performance pay increases exhibited significant negative changes in perception toward performance appraisal administration. The next chapter presents a discussion of findings along with implications of the results.

CHAPTER V
SUMMARY, DISCUSSION, AND IMPLICATIONS

5.1 INTRODUCTION

This chapter presents a summary of the study as well as a discussion of findings. Implications of findings are presented and recommendations for future study are included.

5.2 SUMMARY OF STUDY

The purpose of this study was to investigate the impact of size of performance pay increases on employee perceptions and attitudes critical to the success of merit pay programs. The research environment was a small city with a population of 30,000 in a middle Atlantic state. At the time of the study, the city employed 224 people. City management simultaneously implemented a new performance appraisal plan and a merit pay plan where pay increases would be based on job performance. There was considerable anxiety among employees about both the new performance appraisal and merit pay plans, but the merit pay plan received the most criticism.

The literature on merit pay suggests certain areas of concern when implementing a merit pay program: 1) pay as a valued reward, 2) effect of pay on intrinsic motivation, 3) pay is tied to performance (instrumentality), 4) effort leads to performance (expectancy), 5) size of meaningful pay

increases, 6) performance appraisal, 7) trust and communication, 8) effect of goals on incentives, and 9) other considerations such as organization size or structure and presence of a union. Employee perceptions of interest investigated in this study included: 1) pay is tied to performance, 2) performance appraisal administration, 3) ability to perform well, 4) performance appraisal content, 5) trust in city management, 6) pay communication, and 7) importance of pay.

For each of the seven perceptions of interest, a hypothesis was formulated which stated that employees who receive "above average" performance pay increases would exhibit positive changes toward the respective perception while employees receiving "below average" performance pay increases would exhibit negative changes toward the respective perception. The literature was reviewed for appropriate scales but none were found to be feasible, mainly due to the inability of city employees to understand them. All scales utilized on the survey instrument were developed for this project.

To assess the importance workers attach to pay, respondents were asked to rank seven items such as pay, job security, and opportunity for promotion in the context of what would be important in deciding whether to take a new job. The rank an employee attached to pay was used as a

measure of the importance employees attached to pay. For the remaining scales, individuals were presented with statements to which they responded on a Likert type scale with responses ranging from strongly agree to strongly disagree. A simple average was used to calculate scale scores for the remaining scales. Performance pay increases were obtained directly from personnel records.

Once the survey instrument was developed it was administered to several classes of college students, selected graduate students, and faculty for comments. Adjustments were made to survey items and the revised survey instrument was administered in a pilot study to a small group of city employees (N=8). Information obtained from the pilot study was utilized in development of the final version of the survey instrument.

The survey was administered on two separate occasions to determine whether employee perceptions changed during implementation of the new merit pay plan. The first administration of the survey instrument (Wave 1) was conducted two weeks after employees learned the size of their performance appraisal score and one week prior to employees learning the size of their performance pay increases. Responses to Wave 1 served as a benchmark against which responses from the second administration (Wave 2) could be compared. Wave 2 of the survey instrument was

administered one week after employees learned the size of their performance pay increase. Employees in groups of from one to 20 individuals attended sessions held at the city municipal building in which they filled out the survey instrument. Participation was not mandatory. Completed survey instruments were collected prior to employees leaving the session.

Factor analysis was utilized on Wave 1 responses to determine the appropriateness of proposed scales. Internal reliability coefficients (Cronbach alpha) were calculated for each of the scales. Proposed scales were basically in agreement with scales indicated by factor analysis.

Using social security numbers as a control mechanism, performance pay increases of employees who responded to both Wave 1 and Wave 2 (N=100) were rank ordered within departments. Individuals who received performance pay increases ranked in the upper third were considered to have received "above average" increases while individuals ranked in the lower third received "below average" increases. This resulted in an "above average" performance pay increase group of 25 respondents and a "below average" performance pay increase group containing 30 respondents.

A data set was created containing responses of employees who participated in both Wave 1 and Wave 2. Using this data set, scale scores were then calculated and a new

data set containing differences in scale scores (Wave 2 scale score minus Wave 1 scale score) was created. A negative difference score would indicate a negative change in perception while a positive difference score would indicate a positive change in perception. The average difference score for each perception of interest was calculated for both the above and below average performance pay increase groups. Using a paired t-test, the average difference scores were tested to see if they were significantly different from zero. A positive mean significantly different from zero would indicate a significant positive change in perception while a negative mean significantly different from zero would indicate a significant negative change in perception.

This study had several limitations and delimitations. Study limitations include: 1) the lack of a control group, 2) the short time frame of survey administrations, and 3) the small sample size. Study delimitations relate to issues identified in the literature as being important which were not dealt with in this study. These issues included the effect of pay on intrinsic motivation, the effect of goals on incentives, and employee perceptions of the pay system.

Analysis of t-tests used in hypothesis testing indicates that no hypothesis was completely supported. Several hypotheses received partial support. Employees who

received above average performance pay increases exhibited significant positive changes in perception toward expectancy and instrumentality. Employees who received below average performance pay increases exhibited significant negative changes in perception toward performance appraisal administration.

5.3 DISCUSSION AND IMPLICATIONS

This section presents a discussion of findings. Differences in demographic characteristics between "above average" and "below average" performance pay groups, proposed versus actual scale content, and findings related to hypotheses are discussed. Implications of findings are also presented.

5.3.1 DEMOGRAPHICS

Significant demographic characteristics of "above average" and "below average" performance pay increase groups are discussed in this section. The average age was 34.0 years for the "above average" performance pay increase group and 40.4 years for the "below average" performance pay increase group. Analysis of Table 3 would appear to indicate that a prima facie case of age discrimination exists with respect to pay increases. In the age 40 and older categories, there were four individuals in the above average group and 15 individuals in the "below average"

performance pay increase group. This finding is misleading, however, as the older individuals in the "below average" pay increase group were generally at or near the top of their pay grade. Under rules of the new pay system, this limited the size of the performance pay increase to only half the amount they would normally have received.

The average length of service was 5.3 years in the "above average" group and 10.9 years in the "below average" group. Analysis of job tenure data found in Table 7 indicates that only three individuals in the "above average" group had worked for the city longer than 10 years while 13 individuals in the "below average" group had worked more than 10 years. As might be expected after discussion of age, the individuals in the "below average" performance pay increase group who had been with the city more than 10 years were generally at or near the top of their pay grade.

Inspection of data by department (Table 6) indicates a disproportionately large number of "below average" individuals in the public works department. It would appear that public works employees may have been judged by stricter standards than employees in other departments. In reality, 11 of the 17 individuals were at or near the top of their pay grade.

The average number of years education was 13.7 years in the "above average" group and 11.5 years in the "below

average" group. Analysis of education data found in Table 5 indicates that this difference is largely due to the fact that there are no individuals in the "above average" group with less than eight years of education. There are seven individuals in the "below average" group with less than eight years education. The distribution of individuals in the above average" and "below average" groups for years nine through 18 is basically the same.

The average performance pay increase for the "above average" group was 8.0% while the average for the "below average" group was 4.7%. Based on these figures, the logical question to arise is whether there is enough variation between performance pay increases for "above average" and "below average" groups to elicit improved job performance. Of the 30 individuals in the "below average" group, 15 were at or near the top of their pay grade. This had the effect of "artificially" lowering their performance pay increases below what they would normally be, even if the size of the increase would still put them in the "below average" group. The average performance pay increase for the 15 individuals in the "below average" group who were not at or near the top of their pay grade was 5.9%. It could be argued that there is really not much difference between 5.9 % and 8.0 % in terms of ability to motivate improved job performance. The research literature suggests

that the pay pool must be large enough to allow for the variation in performance increases between "above average" and "below average" performers necessary to elicit improved performance. This may not have been the case in this situation.

One final comment about demographics is in order. Analysis of sex of "above average" and "below average" individuals in Table 4 indicates that there are comparatively few women who received "below average" performance pay increases. There are two reasons for this. Of the 100 individuals who participated in both Wave 1 and Wave 2, 77 were male and only 23 were female. Based on this statistic, one would expect to find relatively fewer women. In addition, very few women were at or near the top of their pay grade.

5.3.2 SCALE CONTENT

Scales utilized in this study included: 1) instrumentality, 2) performance appraisal administration, 3) expectancy, 4) performance appraisal content, 5) trust in city management, 6) pay communication, and 7) importance of pay. Analysis of proposed versus factor analysis indicated scale items indicates that while they were basically in agreement, there are some discrepancies. These discrepancies are discussed below. Proposed versus factor analysis indicated scale items were summarized in Table 11.

Factor analysis indicated scale items were not in agreement with proposed scale items for instrumentality.

Proposed scale items for instrumentality included:

The town's new pay system rewards good work.

Under the new pay system, people that perform well will receive higher pay increases.

Pay increases under the new pay system are not based on performance.

These items all relate to the individual's belief that pay under the new merit pay system will be tied to performance.

Factor analysis indicated items included the items presented above as well as three additional items. Additional items included:

I trust the Town Manager to treat me fairly.

I know what I have to do to get a pay increase under the new pay system.

The performance evaluations are administered fairly.

Analysis of factor loadings indicates that trust, knowledge of the new pay system, and fairness in performance appraisal were linked to instrumentality. An interesting question arises as to whether level of trust, knowledge of pay system, or fairness of performance appraisal moderate perceptions of instrumentality. Based on these findings, it does appear that instrumentality may not be a separate construct and might better be considered in conjunction with other factors.

The proposed scale for performance appraisal administration was basically in agreement with the factor analysis indicated scale Proposed scale items for performance appraisal administration included:

It is easier for some employees to get a high performance evaluation from supervisors than it is for others.

My supervisor accurately evaluates my performance.

My supervisor allows friendship to influence performance evaluations.

The performance evaluations are administered fairly.

It is easier to get a high performance evaluation from some supervisors than it is from others.

All proposed scale items loaded as planned. Factor analysis indicated scale items for performance appraisal administration included the items presented above. These items focus on the role of the supervisor in the performance appraisal process. In addition to the proposed items, one additional item (I trust my supervisor to treat me fairly) loaded on this scale. Results suggest the importance of trust in the supervisor in the performance appraisal process and ultimately in the merit pay process. To the extent that individuals associate performance appraisal with instrumentality, the individual who evaluates employee performance is extremely important. Analysis of factor loadings for instrumentality did indicate that individuals

associated the instrumentality and performance appraisal. Again the question arises as to whether trust moderates perceptions of performance appraisal administration. Factor loadings for both instrumentality and performance appraisal administration, two critical concerns in the merit pay process, indicate that level of trust may indeed influence employee perceptions about the merit pay process.

There were also discrepancies between proposed and factor analysis indicated scales for trust in city management. Proposed scale items for trust in city management included:

I trust my supervisor to treat me fairly.

* I trust the Town Manager to treat me fairly.

* I trust the Town Council to treat me fairly.

The proposed scale encompasses city management from the first-line supervisor up to city council. In this case, all proposed scale items did not load as planned. Factor analysis indicated scale items included the items above marked with an asterisk (*). These findings indicate that city employees distinguish between different levels of management. City management includes the city manager and city council, not immediate supervisors.

It also appears to indicate that city management is not perceived to be associated with performance appraisal administration, at least not to the same degree as

supervisors. Yet it is city management which dictates policies and procedures which determine how performance appraisals will be administered. This suggests that supervisors, who employees see and deal with every day, are more important considerations in perceptions of performance appraisal administration than formal policies or procedures specified by city management. One possible explanation for this is that employees know how important performance appraisals are and also how subjective supervisors can be in the appraisal process. Subjectivity of individual supervisors may be a more serious concern to employees than policies or procedures which they believe are more likely to be applied equally to all city employees.

The final scale where proposed scale items were not in agreement with factor analysis indicated items was pay communication. Proposed scale items for pay communication included:

- * The new pay system was adequately explained to employees.
- * I know very little about how pay increases are determined under the town's new pay system.

I know what I have to do to get a pay increase under the new pay system.

While these items all relate to employee understanding of the new pay system, not all items loaded as planned. Factor analysis indicated that the items above marked with an asterisk (*) loaded under pay communication while the

remaining item loaded under instrumentality. Respondents associated knowledge of requirements for a pay increase with instrumentality. One possible explanation for this could be the emphasis city management placed on pay being tied to performance when selling the program and training supervisors and employees on its implementation.

Proposed scale items were in agreement with factor analysis indicated scale items for expectancy, performance appraisal content, and pay importance. Analysis of scale content discrepancies indicates the importance respondents placed on being treated fairly by both immediate supervisors and city management. Trust loaded on both instrumentality and performance appraisal administration, indicating that level of trust may moderate perceptions of these scales. Factor analysis did not yield any results inconsistent with the research literature on merit pay.

5.3.3 HYPOTHESES

This section discusses research findings related to hypotheses. The data in Table 11 indicates that none of the seven hypotheses were completely supported and only three hypotheses (H1, H2, and H3) were partially supported. Hypotheses H1, H2, and H3 are discussed in detail below and a general discussion of unsupported hypotheses is presented. Implications of findings are discussed in the next section.

H1: Employees who receive above average performance pay increases will exhibit positive changes in perception toward pay being tied to performance while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward pay being tied to performance.

Hypothesis H1 received partial support. Employees who received "above average" performance pay increases did exhibit significant (at 0.10 level) positive attitude changes toward pay being tied to performance ($t = 1.84$, $PR > |t| = 0.0788$). Employees who received "below average" performance pay increases did not exhibit significant negative attitude changes toward pay being tied to performance ($t = 0.78$, $PR > |t| = 0.4422$). No empirical studies had been found in the research literature which dealt with this issue. It is noted here that study limitations make determination of causality impossible here as well as in the remaining hypotheses. As this is an exploratory study, inferences about what findings appear to indicate will be made. Based on this finding, it appears that size of performance pay increase caused positive but not negative changes in perceptions toward instrumentality. One possible explanation for this finding might be that with the exception of one city employee, everybody got at least a 3.5% performance pay increase. There may be a level below which individual perceptions will be negatively affected. More research is needed on what constitutes a "meaningful"

pay increase.

H2. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward performance appraisal administration while employees who receive below average performance pay increases will exhibit negative changes in perception toward performance appraisal administration.

This hypothesis received partial support. Employees who received "below average" performance pay increases did exhibit significant (at 0.10 level) negative changes in perception toward performance appraisal administration (t = 1.98, PR > |t| = 0.0574). Employees who received "above average" performance pay increases did not exhibit significant positive changes in perception toward performance appraisal administration (t = 1.06, PR > |t| = 0.3019). Only one empirical study dealing with the impact of performance appraisal scores on attitudes critical to successful merit pay programs was identified. The finding in the present study is in conflict with an earlier study. Landy, et al., investigated whether individuals who received high performance ratings would consider the performance appraisal process fair and accurate.⁸² They found that perceptions of fairness or accuracy were not related to the performance rating of respondent. One likely reason for this discrepancy in findings might be the nature

⁸² Landy, Barnes-Farrell, and Cleveland, pp. 355 - 356.

of the respondents. Landy, Barnes-Farrell, and Cleveland surveyed 284 middle-level managers in a manufacturing organization while this study investigated city employees, both management and below. This finding, in conjunction with factor loadings for instrumentality, does suggest that respondents do associate performance appraisal administration with instrumentality.

H3. Employees who receive above average performance pay increases will exhibit positive changes in perceptions toward their ability to perform well while employees who receive below average performance pay increases will exhibit negative changes in perceptions toward their ability to perform well.

Hypothesis H3 received only partial support. Employees who received "above average" performance pay increases exhibited significant (at 0.05 level) changes in perception toward their ability to perform well ($t = 3.20$, $PR > |t| = 0.0039$). Employees who received "below average" performance pay increases did not exhibit negative changes in perceptions toward their ability to perform well ($t = 0.09$, $PR > |t| = 0.9326$). No empirical studies were identified in the research literature which dealt with this issue. As with instrumentality, these findings appear to indicate that size of performance pay increase caused positive but not negative changes in perception. It may be that size of performance pay increase has the ability only to enhance perceptions or it may be that respondents, on

average, did not receive small enough pay increases to elicit negative changes in perceptions. The answer is beyond the scope of this study.

One other point with respect to this hypothesis deserves mention. Respondents in the "below average" performance pay increase group include both individuals at or near the top of their pay grade (who had received artificially lowered pay increases) as well as individuals who received "below average" performance pay increases because they were below average performers. While not directly within the scope of this study, it could be hypothesized that individuals who received artificially lowered pay increases would differ in their perceptions of expectancy from individuals who were considered to be below average performers. For example, individuals at or near the top of their pay grade might be more likely to blame management than question their own ability.

To investigate this possibility and see whether these subgroups of the below average group responded differently, paired t-tests were run on responses of the "below average" performance pay group excluding those individuals at or near the top of their pay grade. Results of paired t-tests for the true below average performers were consistent with findings for the entire "below average" performance pay increase group. Respondents exhibited negative changes in

perception only toward performance appraisal administration ($t = 2.21$, $PR > |t| = 0.0444$). These findings indicate no difference in perception of expectancy or other perceptions of interest. It would appear that with respect to perceptions of interest in this study, a low pay increase is a low pay increase, regardless of why it came about.

The remaining hypotheses dealing with performance appraisal content, trust in city management, pay communication, and importance of pay received no support. Significant points about these hypotheses are discussed below. The research literature which discusses the importance of performance appraisal to successful merit pay programs does not generally distinguish between performance appraisal administration and content, simply stressing the importance of measuring performance accurately. Analysis of factor loadings indicates that respondents did distinguish between performance appraisal content and administration. Results of t-tests for hypothesis also indicate that respondents distinguished between content and administration. No change in perception was noted with respect to content, but there was a change with respect to administration. These findings may indicate that perceptions of performance appraisal content are not affected as much as perceptions of performance appraisal administration by size

of performance pay increase. It may be that employees are more concerned over administration than content. One reason for this differentiation might be that employees realize how subjective supervisors can be in the rating process. It is the application and not the content of tasks which is subjective. Findings in this study and the research literature support the importance of trust and fairness in performance appraisal.

Analysis of factor loadings for instrumentality and performance appraisal administration appeared to indicate the importance of trust in both supervisors and the city manager. Analysis of data in Table 11 indicates that employee perceptions of trust in city management did not change following employees learning the size of their performance pay increase. Results of t-tests appear to indicate that even though trust may be an important consideration in perceptions of other factors, perceptions of trust alone are not necessarily dependent on size of performance pay increase. This could be because the scale elicits perceptions only of city management. It includes both the city manager and the city council, but not supervisors which could be argued to be the most important individual to workers on a daily basis.

No changes in perceptions toward pay communication or importance of pay were noted. With the exception of

performance appraisal administration, no studies were identified in the research literature which specifically dealt with the perceptions of interest in this study. Implications of findings are presented in the next section.

5.3.4 IMPLICATIONS

Respondents in the "above average" group exhibited significant positive changes in perception toward expectancy and instrumentality. While this in itself is not detrimental to the organization, it does indicate that employee perceptions appear to be influenced by size of performance pay increases. Employees who received "below average" performance pay increases exhibited negative changes in perceptions in only one case, performance appraisal administration. This also indicates the potential for size of merit increases to influence perceptions of interest, in this case with potential negative consequences for the organization.

Performance appraisal and instrumentality are key factors in the success of a merit pay program. Factor analysis indicated that respondents associated fairness in performance appraisal with instrumentality. To the extent that perceptions of performance appraisal administration are influenced by size of performance pay increase and instrumentality is associated with performance appraisal administration, employee perceptions of instrumentality and

performance appraisal administration may be unfavorable. It should be noted that while factor analysis did indicate some association between instrumentality and performance appraisal administration, employees in the "below average" group exhibited negative changes in perception toward performance appraisal administration but not toward instrumentality ($t = 0.78$, $PR > |t| = 0.4422$). This casts doubt about the strength of the association.

Meyer has argued that a majority of employees will rate themselves as "above average", whether they are or not.⁸³ All employees are not above average; thus some will invariably get less than they feel they deserve. What happens when an employee gets a performance appraisal and resultant merit increase smaller or larger than anticipated? This study suffers from limitations as previously discussed and research findings are by no means conclusive. However, results do suggest that employee perceptions critical to the success of merit pay programs may be influenced by size of performance pay increase. Where the perceptions are enhanced (instrumentality and expectancy), this may benefit the organization. To the extent that individual perceptions toward factors necessary for successful merit pay programs are negatively influenced by size of

⁸³ Meyers, p. 42.

performance pay increase (performance appraisal administration), it casts doubt about the feasibility of merit pay programs. Giving individuals what they "deserve" may not only fail to motivate, it may have other negative consequences for the organization.

These research findings have practical implications for policy makers and pay system administrators. Implementation of such a program requires an enormous amount of resources which might be better spent on some other type of productivity improvement program. Organizations contemplating implementation of a merit pay program should seriously consider the potential negative as well as positive consequences of such an action. Findings here suggest the susceptibility of employee perceptions of instrumentality, expectancy, and performance appraisal administration to change and the potential role of trust as a moderator of these perceptions. Favorable perceptions of these factors are critical if merit pay is to be successful. Individual perceptions of these particular factors as well as other critical factors were assessed after city management had decided to implement the program and the process was well under way. Ideally, an organization should assess these perceptions prior to implementation of such a program. In the event that such perceptions are not favorable, it is unlikely that the program would be

successful and management should seriously reconsider its feasibility. Even if perceptions are initially favorable, management should keep in mind that they may change during the implementation process. Implementation of a merit pay program is a dynamic process.

City management simultaneously implemented a new job and task specific performance appraisal system and merit pay plan. In order to maximize the probability of success in implementing a successful merit pay program, it is suggested that the performance appraisal system should be in place and operational well in advance of implementation of the merit pay plan. This will reduce employee anxiety as well as facilitating identification and solution of problems which will arise in the implementation process.

The research literature stresses the importance of having a large enough pay pool to give meaningful increases. Analysis of the distribution of performance pay increases in this case indicates that the range may not be great enough to distinguish adequately between "above average" and "below average" performers. Organizations must ensure that the pay pool is large enough to give "meaningful" pay increases if improved job performance is to be obtained. Related to this, it is also suggested that the organization allocate and award cost of living and merit increases separately.

Implementation of a successful merit pay program is difficult under the best of conditions. The city in this study went to great lengths to involve employees and obtain their participation throughout the implementation process. There were numerous training and information sessions to keep employees advised of what was going on. Inflation was relatively low compared to recent years. Management was knowledgeable and committed to the program. Even under these conditions, which can be classified as a relatively good environment, there were problems. These problems were due in large part to a lack of understanding of employee reactions to the merit pay process. This study, in examining the impact of size of performance pay increases on perceptions critical to successful merit pay programs, contributed to this understanding. It also suggests areas in which future research would be beneficial.

5.4 SUGGESTIONS FOR FUTURE RESEARCH

A replication of this study with a larger sample size and control group would be beneficial. The larger sample size would give more power to detect changes in perceptions and a control group would allow determination of causality. However, real world conditions will likely make it impractical to deny a group of individuals a pay increase in order to obtain a control group.

This study suggests that research in several specific areas would improve understanding of employee reactions to the merit pay process. These areas include such things as employee perceptions of the relative importance of performance appraisal content and administration in the performance appraisal process, employee perceptions of the relationship of performance appraisal to instrumentality, the size of meaningful pay increases, and the role of trust as a moderator in perceptions of instrumentality and performance appraisal administration is also of interest.

Research on these areas of interest needs to be done in both the public and private sectors. Possible approaches for suggested research are outlined below. There is very little in the empirical research literature on size of meaningful pay increases. One possible approach to study size of pay increases as they relate to merit pay might be to ask individuals what pay increase they think they should have received. This figure could then be compared to actual pay increases and a discrepancy score created. Discrepancy scores could then be correlated with perceptions of interest to identify relationships.

The role of trust as a potential moderator of perceptions of interest also deserves investigation. Individuals could be classified according to whether they felt a high or low level of trust toward a particular

individual or group of individuals. An analysis of variance approach could then be used to test whether there is any difference in perceptions of interest between individuals in the high and low trust groups. These are but a few of the areas which need attention. A review of the literature on merit pay indicated that it is largely theoretical in nature. More empirical research on all aspects of the merit pay process is needed.

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Appendix A
SURVEY INSTRUMENT

TO: TOWN EMPLOYEES

The purpose of this questionnaire is to find out your feelings toward various aspects of the performance appraisal and pay plans. For this study to be useful, it is important that you answer all questions as honestly as possible. There are no right or wrong answers. I just want to know how you feel.

Your individual responses will be kept confidential and will not be made known to your supervisors, department heads, or town management. I assure you that no town employee will ever see your completed questionnaire or have access to the answers you give.

Michael J. Vest
Graduate Student
Virginia Tech

I. Computer Identification Code

Social Security Number -----

II. Suppose you are thinking about whether to take a new job. In making your decision you would probably consider various characteristics of the new job such as opportunity for promotion or job security. A list of job characteristics is provided below. Please rank these job characteristics in order of how important they would be to you in deciding whether to take the new job. Place a 1 by the item you feel is most important, a 2 by the item which you feel is second most important, and so on. You will finish by putting a 7 next to the item you would consider the least important in making your decision.

- friendly coworkers
- job security
- opportunity for promotion
- pay/wages
- recognition for good work
- type of work
- working conditions

III. How satisfied are you with your job in general? (Please circle one of the following)

Very Dissatisfied	Dissatisfied	I can't Decide	Satisfied	Very Dissatisfied
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IV. You should score items in this section with respect to your pay. Please read each of the following statements and then circle the appropriate answer. Circle yes if you agree with the statement, no if you disagree with the statement, and I cannot decide if you cannot make up your mind.

1) My income is adequate for normal expenses.

Yes	No	I cannot decide
-----	----	-----------------

2) My pay is bad.

Yes	No	I cannot decide
-----	----	-----------------

3) I am paid less than I deserve.

Yes	No	I cannot decide
-----	----	-----------------

4) I am underpaid.

Yes	No	I cannot decide
-----	----	-----------------

V. Please read each of the following statements and decide how you feel about it. Then circle the appropriate answer under each statement.

1) The town's new pay system rewards good work.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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2) I can complete all my job assignments if I work hard.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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3) The tasks on which I am evaluated do not accurately describe what I do on my job.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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4) It is easier for some employees to get a high performance evaluation from supervisors than it is for others.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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5) I receive enough feedback concerning my quantity of output on the job.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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6) All town employees should get the same percentage pay increase.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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7) The new pay system was adequately explained to employees.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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8) The old pay system rewarded good work.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
-------------------	-------	-------------------	----------------------	----------	----------------------

9) My immediate supervisor demands that people give their best effort.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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10) It does not pay to perform well in this department because I just get assigned more work.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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11) I often think about quitting.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
-------------------	-------	-------------------	----------------------	----------	----------------------

12) I trust my immediate supervisor to treat me fairly.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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13) Compared to other employees in similar jobs working for the town, I am an above average performer.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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14) Under the new pay system, people that perform well will receive higher pay increases.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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15) If I make the effort, I can do my job well.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
-------------------	-------	-------------------	----------------------	----------	----------------------

16) The tasks on which I am evaluated accurately describe what I do on my job.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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17) My immediate supervisor accurately evaluates my performance.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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18) I am provided with sufficient feedback on the quality of my work

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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19) Pay increases should be based primarily on an individual's actual job performance.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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20) I know very little about how pay increases are determined under the town's new pay system.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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21) In the past, people that performed well received higher pay rates.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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22) My immediate supervisor insists that people work hard.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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23) Individuals I work with feel threatened when I do an outstanding job.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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24) I am proud to tell people who it is I work for.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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25) I trust the Town Manager to treat me fairly.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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26) Pay increases under the new pay system are not based on performance.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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27) If I make the effort, I can get my job assignments completed on time.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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28) I am satisfied with the task list used to evaluate my job performance.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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29) My immediate supervisor allows friendship to influence performance evaluations.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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30) I would like to receive more feedback on how well I am doing my job.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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31) Individuals should be granted special consideration (for example, letting someone take a longer than normal lunch break to take care of personal business) based on job performance.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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32) I know what I have to do to get a pay increase under the new pay system.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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33) My immediate supervisor demands that people do high quality work.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
-------------------	-------	-------------------	----------------------	----------	----------------------

34) My immediate supervisor will feel threatened if I do an outstanding job.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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35) I would change employers if I could make a little extra money.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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36) I trust the Town Council to treat me fairly.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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37) There is not enough time to do my job right.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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38) The performance evaluations are administered fairly.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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39) Pay increases should be based primarily on length of service.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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40) I would recommend the town as a place to work to a close friend.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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41) It is easier to get a high performance evaluation from some supervisors than it is from others.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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42) The weights assigned to the tasks used to evaluate my job performance accurately describe how important the tasks are in the performance of my job.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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43) Procedures for determining pay increases are applied fairly.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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44) Pay policies and procedures are fairly administered.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
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VI. Please answer the following questions. Use the reverse side of this sheet if necessary.

1) What percentage performance pay increase did you receive?
 ----- (number)

2) What do you think your performance pay increase should have been? ----- (number)

3) In your opinion, what are the two major problems with the performance evaluation system?

4) In your opinion, what are the two major problems with the new pay system?

5) Why do you like working for the town?

6) What don't you like about working for the town?

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Performance Based Pay:
An Empirical Investigation of the Impact of
Performance Pay Increases on Perceptions Critical
To Successful Merit Pay Programs

by

Michael J. Vest

(ABSTRACT)

The purpose of this study was to investigate the impact of size of performance pay increases on employee perceptions critical to the success of merit pay programs. Perceptions investigated in this study included: 1) instrumentality, 2) expectancy, 3) performance appraisal administration, 4) performance appraisal content, 5) trust in city management, 6) pay communication, and 7) importance of pay. It was hypothesized that individuals who received above average performance pay increases would exhibit significant positive changes toward perceptions of interest while individuals who received below average performance pay increases would exhibit significant negative changes toward perceptions of interest.

The research site was a city of 30,000 in a middle Atlantic state which employed 224 people at the time of the study. A survey instrument was developed and administered to city employees one week prior to and one week after

employee learning the size of their performance pay increase. Difference scores between the two administrations were created and paired t-tests were utilized to test for significant changes in perception. Results indicated that employees who received below average performance pay increases exhibited significant negative changes in perception toward performance appraisal administration while employees who receive above average performance pay increases exhibited significant positive changes in perception toward instrumentality and expectancy.