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ABSTRACT

This paper focuses on the perceptions of all administrators (N=24) and teachers (N=165) in a school district regarding the success of a merit pay program in providing a motivational climate for teachers. In 1984 a school district in New Hampshire instituted a Performance Based Salary Program (PBSP). This paper addresses the following research question: What effect has the PBSP had upon the quality of the work environment for teachers? Survey results were focused on several areas: (1) background; (2) attitudes toward teaching; (3) attitudes toward PBSP; (4) impact of the PBSP; (5) teachers' self-reported performance ratings; (6) teacher evaluation; (7) job burnout; (8) teacher job satisfaction; and (9) recommendations. Followup interviews were conducted with randomly selected teachers (N=18), administrators (N=9) and board members (N=5). Success of PBSP has contributed to teachers' personal growth as well as improved student learning. Upon analysis of the study, it is clear that teachers believe that PBSP has led to improvement in the following areas: principal involvement, staff development, classroom instruction, education quality, financial support and community confidence. Teachers believe conditions have deteriorated as a result of PBSP in the following area: principal/teacher communications; cooperation among teachers; and teacher/administrator trust. Appended are 13 references. (SI)

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# Merit Pay: Stressor or Motivator?

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### Merit Pay : Motivator or Stressor?

Merit pay. These two words evoke strong emotional reactions from everyone involved in education from teachers, taxpayers, school administrators, school board members to the Secretary of Education. Opponents contend that attempting to link pay to performance in the classroom causes dissention, low morale, and destruction of collegial relationships which lead to high levels of job stress. Proponents argue that rewarding excellence in the classroom reinforces those who exert extra effort on the job and offers incentives for others to improve their performance. Merit pay therefore becomes a motivator for teachers.

Despite the attention given to pay for performance or merit pay programs for teachers by national reports, professional literature, legislators and the public at large, little systematic research has been conducted that either supports or refutes the claims of each side. Most arguments have been based on philosophical beliefs, personal opinion, or by relating experiences of other occupations that have attempted to use such an approach ( see for example Bacharach and Conley 1987; Hatry and Grenier, 1985; Silk 1984-85 ). In May of 1987 the authors completed a year long evaluation study of a collectively bargained merit pay program for teachers. While the study addressed a broad range of issues relating to merit pay, this paper focus on the perceptions of administrators and teachers regarding the success of the program in providing a motivational climate for teachers.

### Background of Study

In 1984 a school district in New Hampshire instituted a Performance Based Salary Program (PBSP) to accomplish the following goals set by the local school board in 1982.

"Develop a five-year plan for making the professional salary program competitive with like positions of responsibility and educational requirements in the private sector. Develop a Master Teacher Program. Maintain a program of attracting the best and most qualified staff by providing an interesting and motivational climate and providing recognition for excellence through awards, articles, money or other appropriate means. Develop and implement strong and effective standards of excellence for teacher performance including an effective evaluation system which assures the public we are meeting those standards."( Paul,1985 ).

The Performance Based Salary Program (PBSP) was agreed to in a collectively bargained contract with the local teachers association which was not aligned with any state or national association. This five year contract contained several important components that are summarized below:

- a.) The contract covered the years 1984-1989. The teachers' work year was extended from 186 days to 192 days over the five years (180 contact days with students ).
- b.) Teachers were given salary increases of 15% for year one, 13% for year two, 11% for year three, and 10% for years four and five. This money was distributed partially across the board and partially on the basis of performance. The amount distributed by performance level increased as the contract matured. For a complete breakdown of the schedule see Appendix A .
- c.) The contract stipulated that a new teacher evaluation plan had to be designed by a committee of teachers and administrators to determine the performance ratings of teachers. This committee was called the Performance Criteria/Evaluation Process Committee (PC/EPC) and was comprised of 7 members recommended by the teachers association and 5 recommended by the superintendent of schools. This ongoing committee was also charged with revising the evaluation procedures as necessary.

In March of 1986 the New Hampshire School Boards Association (NHSBA) received a federal grant from the Secretary of Education's Discretionary Grant Fund to evaluate the PBSP, which at that time had been in place two years.

### Study Design

This paper addresses the following research question:

1. *What effect has the PBSP had upon the quality of the work environment for teachers?*

The research design consisted of two parts. First , in May of 1986 all teachers (n=165) and administrators (n=24) in the school district completed a comprehensive survey developed by the research team in cooperation with the Performance Criteria/ Evaluation Process Committee. This survey included standardized valid and reliable instruments as well as questions designed by the research team to measure attitudes of teachers and administrators toward various aspects of the plan. All quantitative responses were examined as a

total population and by grade level taught ( elementary, middle,high school ), years in teaching ( 1-5, 6-10, 11-15, and 16 or more years), and age ( 20- 29, 30-39, 40-49, and 50 and over ).

Responses were also examined by performance ratings that teachers received. A critical aspect of this study was determining the validity of the teachers' self reported performance levels. The self reported levels were perceived as valid by the researchers because they compared favorably to the of the distribution of the actual ratings received by the teachers. It was agreed at the onset of the study that these scores would not be reported in any future publications or presentations because of the confidentiality of the evaluation process. The seven merit levels were combined into categories of levels 1-3 (lower third) , level 4 ( middle third ) and levels 5-7 (upper third ) for purposes of analysis in this study.

Parts of the survey used to address the research questions in this paper were: 1. Background information. This section requested background information about the respondents.

2. Attitudes Toward Teaching. This section identified reasons why teachers entered and remained in the profession.

3. Performance levels. This part asked teachers to indicate what their performance levels were and if the teacher thought they were accurate.

4. Attitudes toward PBSP. This section requested information about the teachers and administrators general attitudes toward the PBSP.

5. Impact of PBSP. This part asked a series of researcher developed questions that were designed to assess teachers' and administrators' attitudes toward specific aspects of the PBSP as it existed at the time of the study.

6. Levels of teacher burnout. This section contained the The Maslach Burnout Inventory : Educators Edition , a valid and reliable instrument to measure perceived levels of job burnout ( Maslach, Jackson and Schwab, 1986 ).

7. Job satisfaction. This section contained the Teacher Job Satisfaction Questionnaire ( Lester,1985 ) a valid and reliable instrument to measure levels of job satisfaction in 9 areas.

The second aspect of the research design consisted of follow-up interviews in November of 1986 with randomly selected teachers (n=18), administrators (n=9), and school board members (n=5). Those interviewed

were asked to respond to open ended questions about the programs effect on aspects of morale, the quality of education in the district, and personal and professional development.

The data were analyzed by various quantitative and qualitative methodologies depending upon the inquiry utilized . Quantitative analyses included the use of chi square , one way analysis of variance, and Tukey HSD post hoc tests. Interview data were content analyzed by both authors.

## Survey Results

### Background Information

Table 1 summarizes background information about the teachers and administrators. From Table 1 it is evident that the typical teacher is female, age 37, with a total of 11 years experience in education, and the highest degree held is a bachelors. The typical administrator is male, age 44, with a total of 19 years experience in education, and the highest degree held is a masters. It is important to note that statistical comparisons of teacher and administrator responses to items comprising the subsequent sections of the survey were not conducted due to the substantial difference between the numbers of teachers and administrators who responded. Trends in the different perceptions of these two groups are presented in the discussion section of this paper.

### Orientation and Attitudes Toward Teaching

In this section teachers were asked a series of questions focusing on their orientation and attitudes toward teaching. The first of these questions focused on the importance they placed on various factors as they made their decision to become a teacher. From Table 2, it is evident that the opportunity to influence children and the opportunity to develop professionally were very important. Some importance was placed on the opportunity to advance the teaching profession as well as a work schedule which can permit travel, family activities, etc.. Little importance was placed on salary as these teachers made their decision to enter the profession. Comparisons of teacher responses grouped by either grade or performance levels indicated that there were no significant differences in the importance placed on these factors. When

Table 1

**Background Information For The  
Teacher And Administrator Samples\***

	Teachers	Administrators
<b>Sex</b>		
Male	23%	71%
Female	77%	29%
Total N	176	24
<b>Age</b>		
Mean	37	44
Total N	171	24
<b>Years of Experience</b>		
Mean	11	19
Total N	175	24
<b>Grade Level Assigned</b>		
Elementary	42%	22%
Junior High	26%	13%
High School	32%	52%
More than 1 level	--	13%
<b>Highest Degree Held</b>		
Bachelors	55%	--
Masters	43%	71%
CAGS	1%	8%
PhD	1%	21%

\*Figures are rounded to the nearest whole number or percent

Table 2

**Rank Order Of Factors That Influenced  
Teachers To Enter the Profession**

Rank	Factor	Mean Response	Level of Importance
1	Opportunity to influence children	1.26	Very Important
2	Opportunity to develop as a professional	1.49	Very Important
3	Opportunity to advance the teaching profession	1.90	Somewhat Important
4	A work schedule which can permit travel, family activities, etc.	2.03	Somewhat Important
5	Salary	2.60	Of Little Importance

Means are based on a four point scale, where 1=Very important, 2=Somewhat important, 3=Of little importance, 4=Not important



grouped by age, it was evident that the work schedule of the teaching profession was a significantly more important factor for teachers in their 40's and 50's than for those in their 20's and 30's ( $F=5.51$ ;  $df=3,166$ ;  $p<.01$ ). While not significant, this trend was also evident when examining the means for teachers grouped by level of experience. Older, more experienced teachers tended to place more importance on the work schedule of teaching when they entered the profession.

When asked what the likelihood was that they would still be in teaching five years from now, responses of teachers were distributed as follows: Strong 40%, Good 28.6%, Fair 13.7%, Doubtful 14.9%. For the remaining 2.9% of the teachers this item was not applicable due to retirement plans. Thus, about 70% of the teachers indicated there was a good to strong chance that they would remain in teaching. When grouped by either grade, experience, or performance levels, there were no differences in the responses of teachers. There was a tendency for those teachers in their 20's who have not invested many years in the profession as well as those in their 50's who are approaching retirement to be most skeptical about still being in the teaching profession five years from now.

Table 3 provides an indication of how important teachers believe various factors are in influencing their decision to remain in the teaching profession. All factors were perceived as important. Respect of students, degree of intellectual challenge, and positive relations with peers were perceived as very important in influencing their decision. Factors which were perceived as somewhat important in influencing their decision include positive relations with administrators, adequate instructional materials and resources, support of parents and the community, and salary. It is interesting that teachers perceived salary as being of little importance (mean = 2.60) in influencing their decision to enter teaching, but salary is of some importance (mean = 1.85) in affecting their later decision to remain in teaching. When grouped by either grade, experience, or performance levels, there were no differences with respect to the importance teachers placed on the various factors in influencing their decision to remain in teaching. One significant difference emerged when teachers were grouped by age, such that, teachers in their 50's found positive relations with peers to be of greater importance than teachers in their 40's ( $F=4.75$ ;  $df=3,165$ ;  $p<.01$ ). A further analysis was conducted to determine whether there was any difference in the importance placed on the factors in Table 3 between teachers

Table 3

**Rank Order Of Factors Influencing Teachers  
To Remain In The Profession**

Rank	Factor Response	Mean	Level of Importance
1	Respect of students	1.39	Very Important
2	Degree of intellectual challenge	1.44	Very Important
3	Positive relations with peer teachers	1.48	Very Important
4 tied	Positive relations with administrators	1.56	Somewhat Important
4	Adequate Instructional materials & resources	1.56	Somewhat Important
5	Support of parents and the community	1.80	Somewhat Important
6	Salary	1.85	Somewhat Important

Means are based on a four point scale, where 1=Very important, 2=Somewhat important, 3=Of some importance, 4=Not important

who planned to remain in teaching (i.e., good to strong chance) and those who did not (i.e., fair to doubtful likelihood). No significant differences were evident between these two groups.

### Attitudes Toward The Performance Based Salary Program

Teachers' and administrators' attitudes toward the Performance Based Salary Program (PBSP) are presented in Table 4. These results indicate that while teachers had mixed feelings about PBSP before it was implemented, they have grown more skeptical of the process as it has been implemented over the past two years. By the spring of 1986, there was a 50-50 split between those teachers with positive or mixed feelings versus those with skeptical or negative views toward PBSP. For administrators, on the other hand, initial mixed feelings have lead to more positive attitudes toward PBSP. By spring 1986, all administrators viewed PBSP with positive or at least mixed feelings. Teachers' attitudes over time with respect to PBSP did not differ significantly when they were grouped by either age or level of teaching experience. The only grade level difference was for junior high school teachers who exhibited a significantly more negative attitude toward PBSP in spring 1986 than did their colleagues at the high school level ( $F=3.75$ ;  $df=2,163$ ;  $p<.05$ ). With respect to performance level, teachers in the top performance categories (L5-L7) exhibited significantly more positive attitudes toward PBSP during spring 1986 than did teachers in the middle (L4) or lower (L1-L3) performance categories. The attitudes of teachers toward PBSP over time are summarized by performance level in Table 5.

### Impact of the Performance Based Salary Program

In addition to examining general attitudes toward PBSP, teachers and administrators were asked to indicate what they believe has been the impact of PBSP on specific aspects of the school program. Teachers' and administrators' responses to this question are summarized in Table 6. Trends in the results provided in Table 6 can be derived through two approaches. The first is to eliminate the "about the same response" and then compare the percent of respondents who have perceived things as improving versus those who have not. For example, 58% of the teachers believed things were about the same

Table 4

Teacher And Administrator Attitudes Toward The  
Performance Based Salary Program

	Percent Responding As Follows:				Overall Mean	N
	Positive (1)	Mixed (2)	Skeptical (3)	Negative (4)		
Before PBSP was introduced						
-Teachers	19.0	32.5	32.5	16.0	2.45	163
-Administrators	25.0	41.7	33.3	--	2.08	24
When the program was established in 1984						
-Teachers	8.3	40.4	32.1	19.2	2.62	156
-Administrators	26.1	52.2	17.4	4.3	2.00	23
Now in 1986, after the program has been in operation for 2 yrs.						
-Teachers	10.3	39.7	17.8	32.2	2.72	174
-Administrators	50.0	50.0	--	--	1.50	24

Means are based on a four point scale, where 1=Positive, 2=Mixed, 3=Skeptical, 4=Negative.

Table 5

Teacher Attitudes Toward The Performance Based Salary Program Over Time By Performance Level

	Overall Means By Performance Level				F -ratio
	Overall Mean	L1-L3	L4	L5-L6	
Before PBSP was introduced	2.46	2.43	2.51	2.45	n/s
When the program was established in 1984	2.62	2.58	2.63	2.65	n/s
Now in 1986, after the program has been in operation for 2 yrs.	2.74	2.98	2.81	2.45	4.50 df=2,165 p<.05

Means are based on a four point scale, where 1=Positive, 2=Mixed, 3=Skeptical, 4=Negative.

Table 6  
Teacher And Administrator Perceptions Of The  
Impact Of The Performance Based Salary Program  
On Various Aspects Of The School Program

	Percent responding this aspect-			Overall Mean	N
	Has Improved	Is About The Same	Has Deteriorated		
a.) Quality of communi- cations between prin- cipals and teachers					
-Teachers	31.7	33.5	34.7	3.1	167
-Administrators	79.2	8.3	12.5	2.3	24
b.) Involvement of the prin- cipal in your classroom					
-Teachers	31.3	57.7	11.0	2.8	163
-Administrators	77.3	18.2	4.5	2.3	22
c.) Quality of staff devel- opment activities					
-Teachers	28.1	64.1	7.8	2.8	167
-Administrators	58.3	41.7	-	2.4	21
d.) Quality of the teacher evaluation process					
-Teachers	49.7	24.2	26.1	2.8	165
-Administrators	95.8	4.2	-	2.0	24
e.) Level of cooperation among teachers					
-Teachers	18.0	45.5	36.5	3.4	167
-Administrators	41.7	50.0	8.3	2.7	24
f.) Level of trust between teachers and administration					
-Teachers	10.1	27.4	62.5	3.8	168
-Administrators	25.0	45.8	29.2	3.0	24
g.) Quality of instruction in your classroom					
-Teachers	43.3	54.9	1.8	2.5	164
-Administrators	68.6	31.3	-	2.3	16
h.) Quality of education in the school district					
-Teachers	35.4	57.8	6.8	2.7	161
-Administrators	83.3	16.7	-	2.2	24
i.) Level of financial support for education in the community					
-Teachers	33.1	61.3	5.5	2.7	163
-Administrators	58.3	37.5	4.2	2.5	24
j.) Level of community confidence in the quality of teaching					
-Teachers	19.3	77.6	3.1	2.9	162
-Administrators	50.0	50.0	-	2.5	24

Means are based on a five point scale, where 1=Improved greatly, 2=Improved, 3=Are about the same, 4=Deteriorated, 5=Deteriorated greatly. The percents for the "improved" category were determined by combining those who selected responses 1 or 2. Likewise, percents for the "deteriorated" category were determined by combining those who selected responses 4 or 5.

with respect to the involvement of the principal in their classrooms. Putting this group aside, we see also that 31% of the teachers saw improvement in this area, while 11% believe conditions have deteriorated. By taking the difference between these two percents, we arrive at a net gain of twenty percent in the direction of improvement. A second approach for identifying trends is to examine the group mean. A mean of less than 3.0 provides support for the trend toward improvement, while a mean greater than 3.0 indicates conditions have deteriorated. For example, in going back to the item dealing with the involvement of the principal in the teachers' classrooms, we see that the mean response for teachers is 2.8, which provides support for the trend toward improvement. In applying both approaches, we see they both provide support for the trend that teachers perceive improvement with respect to the involvement of the principal in their classrooms as a result of PBSP.

In applying these two approaches, it is evident that principals perceive the PBSP has improved all aspects of the school program addressed in Table 6, except for the level of trust between teachers and administration. When applying both approaches for teachers, it appears that PBSP has led to improvements in the following areas:

- Involvement of the principal in the classroom,
- Quality of staff development activities,
- Quality of the teacher evaluation process,
- Quality of instruction in the classroom,
- Quality of education in the school district,
- Level of financial support for education in the community,
- Level of community confidence in the quality of teaching.

Areas where teachers believe conditions have deteriorated as a result of PBSP are as follows:

- Quality of communications between principals and teachers,
- Level of cooperation among teachers,
- Level of trust between teachers and administrators.

Meaningful significant differences in teachers' perceptions of the impact of PBSP on these aspects of the school program did not emerge when teachers were grouped by either age or level of experience. A strong trend emerged when teacher responses were examined after being grouped by grade level. More specifically, junior high school teachers believed PBSP had a more negative impact on many aspects of the school program than did either

elementary or high school teachers. Junior high school teachers differed significantly from high school teachers with respect to their perceptions of the impact of PBSP on the following aspects of the school program:

- Quality of communications between principals and teachers,
- Involvement of the principal in the classroom,
- Level of trust between teachers and administration.

Junior high school teachers differed significantly from elementary school teachers with respect to their perceptions of the impact of PBSP on these aspects of the school program:

- Level of trust between teachers and administration,
- Level of financial support for education in the community.

For those aspects where significant differences were evident, the perceptions of the junior high school teachers were more negative than those of either the elementary or high school comparison groups. It is important to note that the junior high school has utilized a team teaching approach to instruction for several years. It is possible that a program that primarily rewards individual effort is less appropriate for schools based on a team teaching philosophy.

As expected, there were also significant differences with respect to the impact of PBSP when teachers were grouped by performance level. Teachers in the higher performance category ( L5-L7 ) believed that PBSP had a more positive impact on those aspects of the school program listed below than did teachers in the lower performance category ( L1-L3 ).

- Quality of communications between principals and teachers,
- Quality of the teacher evaluation process,
- Quality of education in the school district,
- Level of financial support for education in the community.

### Teachers' Self-Reported Performance Ratings

One of the most important aspects of the PBSP is the performance level rating that teachers are given. Teachers are awarded merit based upon the level of performance they receive in the spring summative conference. There are seven levels of merit . Each is worth an amount of money that is determined by dividing the total number of merit levels awarded in the district by the amount of money in the merit pool. Each teacher then multiplies the rating they received by the amount set for each level. As one would expect, the teachers



view the rating as important as the amount of money that the rating transfers into. In addition to providing their performance ratings, teachers were asked to indicate a.) the extent to which the rating was consistent with expectations, and b.) whether the rating was accurate. From Table 7, it is evident that only about 7% of the teachers indicated that they received a performance rating which was higher than expected. Depending upon the year, 48-52% of the teachers received the performance rating expected, and 41-45% of the teachers received performance ratings which were lower than expected. Performance rating expectations did not differ significantly with respect to grade level, age, or years of teaching experience. Performance rating expectations did differ significantly with respect to actual performance category. Teachers in the lower performance category (L1-L3) tended to get lower ratings than expected, while teachers in the higher performance categories (L4) and (L5-L7) tended to receive the rating expected.

Turning to the second half of Table 7, about 40% of the teachers perceived their 1985 and 1986 performance ratings to be accurate. More teachers in the higher performance categories perceived their ratings as accurate than did those in the lower performance categories. The proportion of teachers who viewed their 1985 and 1986 performance ratings as accurate did not differ significantly with respect to grade level, age, or years of teaching experience.

### Attitudes Toward Teacher Evaluation

Teacher and administrator attitudes toward the teacher evaluation process in the district were assessed using part of the Teacher Evaluation Needs Identification Survey (Iwanicki, 1983). More specifically, teachers and administrators responded to a series of items which focused on the following aspects of the teacher evaluation process: 1. Performance Responsibilities, 2. Accountability Relationships, 3. Evaluation for Personal Improvement, and 4. Feedback. Descriptions of each of these aspects of the teacher evaluation process are included in Table 8. Also, the means of the responses to those items associated with each aspect were calculated for teachers and administrators and are also included in Table 8. It is evident that both teachers and administrators agreed that the teacher evaluation process fostered those practices described in the aspects of Accountability Relationships and

Table 7  
**Teachers' Performance Rating Expectations**

	Percent responding that their rating was -		
	Higher Than Expected	About What Was Expected	Lower Than Expected
Spring 1985 rating	6.9	48.1	45.0
Spring 1986 rating	6.4	52.0	41.5

**Teachers' Perceptions Of The Accuracy Of  
 Their Performance Ratings**

	Percent responding that their rating was-	
	Accurate	Not Accurate
Spring 1985 rating	40.8	59.2
Spring 1986 rating	39.6	60.4

Table 8

Teachers' and Administrators' Attitudes Toward  
Aspects Of The Teacher Evaluation Process

Aspects Of The Teacher Evaluation Process	Mean Response	Is This Aspect Fostered ?
1. Accountability Relationships: The extent to which the accountability relationship of each position is defined clearly, such that teachers know who will be evaluating their performance and understand the means by which they will be evaluated.		
-Teachers	1.32	yes
-Administrators	1.44	yes
2. Feedback: The extent to which the teacher evaluation program makes ample provision for clear, personalized, and constructive feedback.		
-Teachers	1.38	yes
-Administrators	1.27	yes
3. Performance Responsibilities: The extent to which general responsibilities and specific tasks of a teacher's position are defined comprehensively and are used as a frame of reference for evaluation.		
-Teachers	1.86	undecided
-Administrators	1.42	yes
4. Evaluation for Personal Improvement: The extent to which the teacher evaluation program takes a constructive approach in considering the personal needs of the teachers as well as the specific nature of the learning environment in which the teacher is involved.		
-Teachers	1.96	undecided
-Administrators	1.67	undecided

Means are based on a three point scale, where 1= agree(yes),  
2=undecided,3=disagree(no)

Feedback. For Performance Responsibilities, teachers were undecided as to whether these practices were fostered through the teacher evaluation process, even though administrators believed they were being fostered. For the aspect of Evaluation for Personal Improvement, both teachers and administrators were undecided as to whether these practices were fostered through the teacher evaluation process.

In summary, these findings indicate that teachers 1.) believe the evaluation process has been clearly defined and communicated to staff, 2.) know who they are accountable to for the purposes of evaluation, and 3.) feel the evaluation process provides clear and constructive feedback. Teachers' responses indicate the process could be improved by 1.) specifying more clearly the general responsibilities and specific tasks which serve as the basis for evaluation and 2.) placing more emphasis on the purpose of personal ( i.e., professional ) improvement during the teacher evaluation process.

With respect to Feedback, junior and senior high school teachers differed significantly from elementary school teachers. Elementary school teachers believed less emphasis was placed on the Feedback aspect of the teacher evaluation process than did teachers at the higher grade levels. Also, less experienced teachers ( 1-5 years experience ) perceived the Feedback aspect to be fostered more than did experienced teachers ( those with 6-10 or 16 or more years experience ). With respect to Performance Responsibilities, high school teachers perceived this aspect of the teacher evaluation process to be fostered significantly more than did elementary school teachers. Finally, teachers in the upper performance category ( L5-L7 ) believed significantly more emphasis was placed on the Personal Improvement aspect of the teacher evaluation process than did teachers in the lower performance category ( L1-L3).

Table 9 illustrates teachers' and administrators' attitudes toward including other types of information in the teacher evaluation process. This Table indicates there is good support for peer evaluation and sparse support for using student performance on standardized tests as part of the teacher evaluation process. While only moderate overall support was provided for including student feedback in the evaluation process, this practice received significantly stronger support among high school teachers ( $F=4.11$ ;  $df=2,165$ ;  $p<.05$ ). Attitudes toward including these types of information in the teacher

Table 9

**Teachers' And Administrators' Attitudes Toward Including  
Additional Information In The Teacher Evaluation Process**

	Percent responding as follows:		
	Support Strongly	Support With Some Reservation	DoNot Support
Evaluation by peer teachers			
-Teachers	18.9	50.3	30.9
-Administrators	25.0	50.0	25.0
Student Feedback			
-Teachers	11.4	47.4	41.1
-Administrators	8.3	50.0	41.7
Student performance on stan- dardized achievement tests			
-Teacher	6.9	31.0	62.1
-Administrators	16.7	33.3	50.0

evaluation process did not differ when teachers were grouped by either age, experience, or performance level.

### Perceived Levels of Job Burnout

Levels of teacher burnout were measured by using the Maslach Burnout Inventory: Educators Edition ( Maslach, Jackson, & Schwab, 1986). This inventory is designed to measure perceived levels of job burnout for people in the education professions . The inventory has three subscales that look at different aspects of job burnout. The first aspect measures feelings of emotional exhaustion and fatigue, the second attitudes toward students, and the third feelings of accomplishment on the job. A person who is experiencing job burnout will have higher feelings of emotional exhaustion and fatigue, more negative feelings toward students, and a low sense of accomplishment from their job. This instrument was utilized to examine if teachers experienced abnormal feelings of burnout while working under PBSP.

Table 10 contains the mean scores on the Maslach Burnout Inventory: Educators Edition for teachers' who worked under the PBSP, a random sample of teachers from across the state of New Hampshire, and a national sample of teachers. Results indicates that teachers in the district in this study generally fall into the average category in the area of emotional exhaustion and fatigue when compared to the national teacher sample. On the other two subscales, teachers fall into the low category of burnout when compared to the national sample. This would indicate teachers who have worked under the PBSP tend to have more positive attitudes toward students and have higher feelings of accomplishment from their job than do teachers in the national sample. As indicated in Table 10, these teachers' scores are similar to those of other New Hampshire teachers ( Schwab, Jackson, & Schuler, 1986 ). Both groups scored in the average range on emotional exhaustion, and in the low range for depersonalization and personal accomplishment. No significant differences were found on these subscales when teacher responses were examined by either grade level, age, years of experience, or performance level.

### Teacher Job Satisfaction

Table 10  
Levels of Perceived Burnout

Factors	Teachers under PBSP Mean	N. H Teachers Mean	National Teachers Mean
Emotional Exhaustion **Range	21.91 (n=175) average	22.19 (n=24) average	21.25 (n=4,125) average
Depersonalization **Range	5.36 (n=174) low	6.73 (n=339) low	11.00 (n=4,163) average
Personal Accomplishment **Range	40.46 (n=173) low	38.06 (n=339) low	33.54 (n=4,163) average

\*The scores for the New Hampshire sample were taken from Schwab, Jackson and Schuler (1986) and the national scores were taken from Maslach, Jackson and Schwab (1986).

\*\*Range cutoff scores for teachers are reported in Maslach, Jackson and Schwab (1986).

Teacher job satisfaction was assessed using the Teacher Job Satisfaction Questionnaire (Lester, 1985). The Teacher Job Satisfaction Questionnaire (TJSQ) assesses teachers' attitudes with respect to aspects of teaching associated with the job itself as well as those associated with the conditions of the job. Aspects of the TJSQ associated with teaching itself include Responsibility, the Work Itself, Recognition, and Advancement. Aspects of the TJSQ associated with the conditions of teaching include Colleagues, Security, Supervision, Working Conditions, and Pay. Each of these nine aspects of the TJSQ is described in Table 11.

It is appropriate to apply the motivation theory of Herzberg (1966) when reviewing the results of the TJSQ. According to Herzberg, separate factors in the work environment account for teacher satisfaction and teacher dissatisfaction. Those factors which account for teacher satisfaction are those associated with the job itself, while those which account for teacher dissatisfaction are associated with the conditions of the job. Teacher motivation is enhanced to the extent that the work environment maximizes the satisfiers (i.e., those factors associated with the work) and minimizes dissatisfiers (i.e., those factors associated with the conditions of work).

From the TJSQ means presented in Table 11, it is evident that teachers tended to be satisfied with respect to the factors of Responsibility and the Work Itself, but were satisfied less with respect to Recognition and Advancement. Also, teachers were not dissatisfied with respect to the factors of Colleagues and Job Security, but were dissatisfied more with respect to Supervision and Working Conditions. Pay was clearly a source of dissatisfaction. To facilitate the interpretation of these results, it is appropriate to view a mean in the neutral range as indicative of a moderate level of satisfaction. In summary, these results indicate that teachers exhibited a moderate to respectable level of satisfaction for most aspects of teaching associated with the work itself as well as the conditions of work. The only aspect which emerged as a clear dissatisfier was Pay.

Teachers did not differ in their level of satisfaction when grouped by either age or level of experience. Significant differences did emerge when teachers were grouped by grade level. Several significant differences were evident between elementary and high school teachers. High school teachers were more satisfied than elementary teachers with respect to Supervision, Advancement, and Pay. Elementary teachers were more satisfied than high



Table 11  
**Teachers' Levels Of Satisfaction With Respect  
 To Various Aspects Of Teaching**

Aspects Of Teaching	Mean	Are Teachers Response	Satisfied ?
*1. Responsibility: Teachers are afforded the opportunity to be accountable for their own work and to take part in policy or decision-making activities.	4.36		Yes
*2. Work Itself: Teachers are free to institute innovative practices, to utilize their skills and abilities in designing their work, to experiment, and to influence or control what goes on in the job.	3.84		Yes
3. Colleagues: The teaching environment is characterized by positive work group relations as well as social interactions among fellow teachers.	3.81		Yes
4. Security: School district policies regarding tenure, seniority, layoffs, pension, retirement, and dismissal provide teachers with a sense of job stability.	3.64		Yes
5. Supervision: The teachers' immediate supervisors are competent and fair, while maintaining positive interpersonal relations during the supervisory process.	3.24		Neutral
*6. Recognition: The reward system which pervades the teaching environment is characterized by the attention, appreciation, prestige, and esteem of supervisors, colleagues, students, and parents.	2.91		Neutral
7. Working Conditions: Teachers pursue their work in comfortable physical surroundings where administrative policies are defined and communicated clearly.	2.85		Neutral
*8. Advancement: School district policies provide teachers the opportunity for improved status, advancement, or promotion in their profession.	2.58		Neutral
9. Pay: Teachers are compensated adequately through a process which recognizes their achievements and contributions.	1.95		No

Means are based on a five point scale, where 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree. Also, note that aspects of teaching marked with an asterisk(\*) are those associated with teachers' work, while the remaining aspects are associated with the conditions of the teachers' work.

school teachers with respect to the Work Itself and Colleagues. Other significant grade level differences were evident between junior and senior high school teachers. High school teachers were more satisfied than junior high school teachers with respect to Working Conditions and Pay.

Significant differences were evident when teachers were grouped by performance level. Teachers in the higher performance category ( L5-L7 ) were more satisfied than teachers in the lower performance category ( L1-L3 ) with respect to the Work Itself, Security, and Recognition.

### The Bottom Line

The final question in this section of the survey is - Knowing what you know today about the Performance Based Salary Program, what would your recommendations be to other teachers considering such a program? Teachers responded as follows:

	Percent	N
-Recommend enthusiastically	5.1	9
-Recommend with caution	46.6	82
-Do not recommend the program	48.3	85

From this response it is appropriate to conclude that teacher support for PBSP is marginal at best. Support for PBSP did not differ significantly when teachers were grouped by either grade level, age, years of teaching experience, or even by performance level. In summary, teachers are split fairly evenly on this issue.

### Interviews

The second phase of data gathering took place in November of 1986 and consisted of follow-up interviews with randomly selected teachers, administrators and board members. The final sample of interviewees included 18 teachers from different schools who have been in the program since it began; 9 administrators including principals, assistant principals, department chairpeople from different schools, and representatives from the central office ; and 5 school board members. All three groups were asked to respond to the following questions:

1. How has PBSP affected education in this district?

2. How has PBSP affected your role as a teacher/school board member/administrator?

3. What changes would you make in the PBSP?

4. Are there any other issues that you want to share with us regarding PBSP?

Content analyses of the interviews identified several common areas where education has been influenced by the PBSP. Because responses tended to be overlapping from question to question, responses to each question are integrated with respect to the categories below. Subsequent discussions highlight these issues from the perspectives of the three groups interviewed.

### Quality of Instruction

Board members and administrators are in agreement that the quality of education has improved in the district. Both of these groups attribute this change to holding teachers more accountable for their teaching practices. This has occurred because the principal is in classrooms more often and is taking responsibility for evaluation more seriously. The major changes that have taken place according to administrators are improved planning and instruction, more time on task for students, and more discussion by teachers about what effective instruction is all about. Administrators feel that marginal and weaker teachers have benefited the most from the program.

Teachers' feelings about the effect of PBSP were mixed. Teachers were split between those that felt the program improved instruction in the district and those who felt that it had either no effect or a negative effect. Those who viewed the program positively felt that marginal teachers are forced to pay more attention to what they are doing, and are less likely to "write students off". Teachers who felt that the program had no effect or a negative effect felt instruction was hurt because creativity is stifled, more time has to be spent documenting what you are doing that could be spent on teaching related activities, and that evaluations interrupt classes. This group of teachers also felt that the plan had no real effect on instruction, because evaluations were only conducted 3 times a year. They felt many teachers only put on a show for those evaluations and returned to old habits for the rest of the time.

### Morale

Overwhelmingly teachers feel that this program has hurt morale and that it has put a great deal of distress on teachers. This was raised as a major concern of all but three of the teachers interviewed. Over half of the teachers mentioned that they had done well under the plan, but question whether it was worth it. The following quotes from three different teachers describe these feelings.

"One of the reasons that I originally selected this school and district was because of the family atmosphere, that is gone. Instead there is dissatisfaction, tension, mistrust that wasn't there before. I am one of the higher ranked teachers and I feel the joy is gone. I have thought about leaving."

"The effect on the district has been negative, self esteem of teachers has fallen. The only way to survive is to work together and say we will teach in spite of the games they play."

"Right now I am planning to leave and my scores have been good. There is an attitude of 'who cares if you leave, we can always replace you with someone at the bottom of the scale.'"

Almost all teachers and some administrators indicated that several of the best teachers in the district have left because of the effect PBSP has had on morale. One administrator summarized these feelings with the following statement. "We need to study the turnover issue very carefully; if all we are doing is upgrading mediocrity at the expense of losing our best teachers then we are going down a self-destructive path." Some administrators disagree with the contention that many good teachers have left because of the plan. They believe these teachers have left for personal reasons (i.e. retirement, job transfer of spouse).

### Evaluation Plan

All three groups agree that the strongest point of PBSP is that the teacher evaluation component is improving constantly and that teachers have a great

deal of input in changes that are made. Most agree that the plan is as good or better than any other teacher evaluation plan of which they are aware. The majority of teachers and administrators felt the improvements that have occurred during PBSP have come about as a result of improved evaluation, not because of the link between performance and financial remuneration. A quote from one administrator summarizes these feelings: "If we (administrators) had done our job evaluating teachers in the first place we would not have to go through all of this now."

The most frequent concern expressed by teachers was not with the plan but with the competence of the evaluators. About half of those interviewed felt that evaluators did not have the proper training or expertise to conduct evaluations. Many of these teachers felt that the evaluation plan was ineffective because incompetent evaluators focused on only trivial items that had no effect on student learning. Teachers indicated that administrators did this in order to classify teachers into predetermined categories. Several teachers indicated that evaluations were not fairly administered and that school politics have a major influence on who gets rewarded. One area where teachers, administrators, and board members agreed was that more effort is needed to make evaluation more consistent across the district.

### Communication

It appears that communication between administrators and teachers has changed since the beginning of the program. All agree that communication is more formalized now. Some teachers feel this has been detrimental because teachers are less likely to go to administrators when they need help. Other teachers and administrators feel that this formalized role has not hurt because teachers are more likely to work with colleagues to solve problems. School board members feel that communication has improved as a result of the program, since they are now more aware of what is going on in schools.

### Staff Development

A significant amount of time has been added to the school calendar for staff development. Board members indicated that they are now more willing to place more money into staff development. Administrators strongly feel that staff

development has greatly improved under this program. Teachers did not agree fully. While most indicated that more opportunities are now available, they also expressed concern that more planning needs to go into designing and offering staff development programs that meet their particular needs. Several teachers expressed the concern that some of the extra days that have been added to the calendar for staff development have been virtually a waste of time.

### Money

Teachers and administrators indicated overwhelmingly that the money offered under the plan is not sufficient to motivate teachers. This appears to be the result of two phenomenon. First, when teachers agreed to the five year contract they also agreed to work more days. Many teachers feel that the percent increases the contract provided them each year are inflated because they are working more days than they did under the original contract. The other event that occurred is that surrounding districts gave their teachers similar, if not greater, percentage increases as they negotiated their teachers' contracts. Many teachers indicated that teachers in these surrounding communities received the increases without increasing the school year, and without having to put up with all of the additional stress caused by PBSP. Board members, also, expressed concern that their plan has become less attractive because other districts provided similar increases without additional responsibility or evaluation.

Many teachers also indicated that the extra money received for each increase in level is not worth all one must do to achieve it. Several teachers indicated that it was much less stressful and more financially rewarding to have a second job and not have to worry about advancing with respect to their performance levels.

### Effect on Role

Administrators seemed to be affected most in the way their role has changed. They indicated that they are in classrooms more, take evaluation more seriously, and feel relationships with staff are more formalized. One concern expressed by some administrators was that they do not feel they are able to provide the supervisory help that they should, because relationships with teachers have become too formalized.

Teachers feel that this plan has not changed their role with the exception that some felt they spend more time letting administrators know what they are doing. Board members did not feel that their roles have changed because of the plan.

### Community Support

When planning for this program, board members believed that if they were to give teachers the salary increases they deserved, then they would have to provide concrete evidence that the performance of teachers had improved. Board members now feel that the community views the district more favorably and is willing to continue to provide appropriate levels of financial support for schools, because of PBSP.

### **Discussion**

There is no question that the generalizability of the findings reported in this paper are limited because of the single district sample and the unique nature of the collective bargaining arrangement that exists in this district. However, the findings do identify many critical issues that need to be settled before a pay for performance program can become a motivator for teachers rather than a source of occupational stress. The findings also identify research issues that need to be addressed in the future.

School board members, administrators, and teachers differ in their perceptions of the success of PBSP. Administrators and school board members believe it has contributed to teachers' professional growth as well as to improved student learning. Some teachers do not share these positive perceptions of the program's impact. Teachers who have received average or below average performance ratings are skeptical of the program. Even teachers who have received above average performance ratings have mixed feelings toward the program.

Since the focus of this paper is on the effect of merit pay on the quality of the work environment for teachers is important to examine the positive and negative aspects of PBSP from the teachers' perspective. Upon extensive review and analysis of the survey and interview data collected in this study, it is clear that teachers believe that PBSP has had some positive impact. For example, the survey results show that teachers believe that PBSP has led to improvements in the following areas:



- Involvement of the principal in the classroom,
- Quality of staff development activities,
- Quality of the teacher evaluation process,
- Quality of instruction in the classroom,
- Quality of education in the school district,
- Level of financial support for education in the community,
- Level of community confidence in the quality of teaching.

Further review of the survey results indicates that teachers' stress levels are low and teachers tend to be fairly satisfied with their jobs, except for the area of pay.

Given these beneficial aspects of PBSP, why is there a 50-50 split between those teachers who recommended continuation of the program and those who did not? Insights into the answer of this question are provided through a review of what teachers believe to be the negative aspects of PBSP as identified in both the survey and interviews.

The survey results indicated that teachers believe conditions have deteriorated as a result of PBSP in the following areas:

- Quality of communications between principals and teachers,
- Level of cooperation among teachers,
- Level of trust between teachers and administrators.

With respect to the teacher evaluation process, survey responses indicated that teachers were undecided as to whether their performance responsibilities were defined comprehensively and used as the frame of reference for evaluation. Also, teachers were undecided as to whether the evaluation process was responsive to those professional improvement needs which are unique to a specific teacher's classroom situation. Interview responses indicated clearly that teachers believe that further training was needed for evaluators to improve the quality and consistency of the teacher evaluation process.

Through further analysis of the teacher interviews it became clear that the performance rating process is a major reason why many teachers disliked PBSP. Many teachers did not object strongly to being evaluated, to being held accountable, or to being paid on the basis of a differentiated salary scale. Many teachers did object strongly to being rated. These teachers believed they worked very hard to do their best all year, only to find themselves rated as average or sometimes below average through an evaluation process which is



always somewhat subjective. Teachers felt it was this aspect of PBSP which had the most detrimental effect on teacher morale.

#### Problems With Performance Appraisal

These results reinforce the contention that a performance based salary program cannot be successful without a well developed, adequately field tested, and fairly administered teacher evaluation plan. Such plans must be refined over time with teacher involvement. The results of this study identified four critical areas of teacher evaluation. First, teachers had noted that clear criteria have not been established for evaluating staff with respect to each performance area. For example, the first performance area is described as follows: "Provides motivation and stimulation for students". Teachers believe clear criteria should be determined to communicate what a teacher must do to receive a top rating on a scale of one to five in this performance area as well as in the other nine areas. This concern is valid. Since the goal of PBSP is excellence in teaching, clear criteria of excellence must be determined to guide the teacher evaluation and supervision processes. In developing these criteria, teacher involvement is critical. The work of Streifer and Iwanicki (1987), Streifer (1987) and Bacharach, Conley, and Shedd (1987) might be helpful as administrators and teachers become involved in this process.

Once clear criteria have been established for evaluating staff with respect to each of the ten performance areas, procedures need to be planned to guide teacher development with respect to these criteria. To improve communication as to what constitutes excellence and how teachers can get there, staff could set objectives at the beginning of the year in areas where they wish to improve. Such objectives would indicate clearly the improvements that need to be made in a specific area to achieve a higher performance rating. Progress toward these objectives would be monitored during the subsequent months. Then achievement of these objectives would be assessed in the spring before performance ratings are assigned. By clearly identifying the expected results early and agreeing to the criteria for achieving these outcomes, it is possible for teachers to develop a better understanding of what constitutes superior performance and how it can be attained.

A second area of concern among teachers is the belief that quotas may exist, whereby a specific number or proportion of teachers must be classified at each of the seven summative performance levels. While teachers at level one are viewed as at least "reliable and respected members of the staff," staff feel

that the typical teacher at surpasses this expectation. They believe the performance of the typical teacher is more consistent with level four, "one's overall contribution consistently exceeds goals and expected performance of a fully-qualified teacher." Furthermore, teachers believe that many of their colleagues are excellent teachers and deserve to be classified at performance levels 5-7. While staff believe the vast majority of teachers tend to fall at performance levels four to seven, the spring 1986 self-reported ratings of teachers are distributed such that one third of the staff fall into each of the following performance categories : L1-L3, L4 , L5-L7. If the self reported performance ratings are correct, then the teacher evaluation process places staff at lower levels than they believe are appropriate. This tendency to classify staff into lower performance levels than expected could account for some of the teacher morale problems associated with PBSP. This issue of how staff should be distributed across performance levels as a result of the evaluation process merits close consideration. If PBSP is to motivate staff and foster excellence, one would expect to see a skewed distribution of performance ratings with the majority of staff falling at the upper end of the performance continuum.

Another concern raised regarding the teacher evaluation process is the one of administrator bias and the need for further administrator training in the area of teacher evaluation. It is not unusual for some teachers to raise this concern. If you believe you are being evaluated through a process where the criteria are not clear and are receiving a performance rating lower than you expected, one conclusion is that your evaluator is biased, poorly trained, or both. This problem will diminish somewhat as the criteria for evaluation are clarified and the issue of how performance ratings should be distributed is resolved. Even after this is done, teacher evaluation outcomes are always suspect when they are conducted by administrators, directors, and/or department heads. For this reason , consideration should be given to involving peer teachers in the evaluation process. Survey responses indicated that teachers and administrators are receptive to this option. Alternatives could be considered where selected peers are trained as evaluators to fulfil this function in cooperation with building administrators. When qualified, respected, and trained peers begin to have input into the evaluation process, the teachers' suspicions of administrator bias might tend to diminish.

The fourth concern about the evaluation process was that teachers had no recourse regarding their evaluators' summative ratings of their performance.

While teachers are free to discuss their performance with their evaluator, the point values assigned by the evaluator to each of the performance areas are not a subject for discussion. For example, if a teacher is judged to be professionally competent ( 3 points ) in the area of "utilizes appropriate and varied instructional strategies, teaching methods, and instructional media ," the teacher could discuss what he or she needs to do to improve this rating. The issue of whether the teacher merits four points in this area is not for discussion. As criteria for evaluation are clarified and as peers become more involved in the teacher evaluation process , the need to discuss why a teacher was assigned a particular point value in a specific performance area should diminish. Although the need for such discussion may diminish, teachers should be afforded the opportunity for such discussion. Teacher evaluation is perceived as fair and equitable by staff to the extent that opportunities are provided for such frank discussion.

While the evaluation component of PBSP is critical for distributing money on a fair and equitable basis, teachers were concerned that summative evaluation had become the focal point of life in the district. Teachers have indicated that their decision to stay in teaching was influenced by the respect they received from students, the intellectual challenge of the teaching profession, and the quality of their interactions with colleagues. Salary is somewhat important, but last on their list. While improving teachers' salaries is important, attention must be devoted to developing constructive supervisory relationships and processes which result in improved teaching through more effective staff development. Another option is to offer teachers choices of non salary incentives for outstanding performance. Such incentives could include providing additional time and financial support for conference attendance, additional monies for purchase of instructional material or being compensated for taking specialized training in areas relating to teaching.

#### Level of Compensation

Teachers in this district agreed to a five year contract that at the time of signing looked very lucrative ( 50% increase in money for salaries over five years ). After the first two years of the contract was in effect surrounding districts were able to negotiate comparable raises without increasing the length of the school year or having as rigorous of an evaluation process. While this was a problem that cannot be directly linked to the concept of paying teachers based on classroom performance it does raise a major problem for implementing

merit problems. Districts that implement such programs must be willing to invest the amount of money necessary to make the merit worth striving for. While research has not shown what amount of money is significant enough to be considered to be a motivator Hatry and Grenier (1985) report incentives of about a \$1000 avoid the criticism of being insignificant. Based on this logic teachers in the district studied who fell into the upper end of the performance levels should be paid \$1000 to \$1500 more than if they moved to a neighboring district.

### Summary/Future Research Directions

The results of this study raise a number of questions that need to be addressed in future studies. Among these are:

1. Are performance based salary programs more appropriate for secondary teachers?
2. Would incentive programs that rewarded team efforts be more appropriate for elementary and middle school teachers who participate in team teaching?
3. As teachers are involved in revising evaluation procedures and performance based pay programs will their attitudes become more favorable toward them?
4. Will those at the lower performance levels develop more favorable attitudes if comprehensive formative evaluation programs are offered?
5. How large does a salary increment need to be in order to be a motivator for teachers?
6. Would attitudes toward the PBSP improve if multiple sources of data are used to determine performance levels? (See Murphy, 1987 and McCarthey and Peterson, 1987 for examples)
7. What effect will PBSP have on aspects of job satisfaction and burnout as programs become institutionalized over time?
8. Do the best teachers leave districts because of performance based pay programs?

These are a few of the more important questions that this study raises. The results of this study indicate that the jury is still out regarding performance based pay programs for teachers. In order for these programs to succeed radical changes must occur both within and outside of the school district. Because of the time involved in experimenting with different approaches both practitioners and researchers must be careful not to make final judgements

prematurely. Longitudinal studies of this and other trial plans are necessary if incentive programs are to become motivators rather than an additional source of stress for teachers.

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