Performance and Satisfaction Deteriorate: Effects of the Removal of a Pay Incentive

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Abstract

This 14-month field study involving over 900 operative employees in two plants of the same company utilized a "before-and-after" design to investigate the effects of removal of a pay incentive. The only difference between the two plants was that one was in the process of abandoning a pay incentive system (experimental condition) that was identical to the system that remained in the other (control group). Findings from both multivariate and univariate analytical procedures revealed significant declines in performance and comparable although sometimes counterbalancing effects on measures of employee satisfaction, turnover, and grievances after removal of the incentive plan. The findings suggest that management needs to reconsider continuation of the trend away from performance-contingent pay systems that is now so widespread at the operative level.

Introduction

Does linking pay to performance lead to higher performance? There is clearly ample justification for an affirmative "Yes, it does!" Recent propositions (cf: Jorgenson, et al. 1973; Lawler, 1981; Heneman and Cohen, 1988) and findings drawn predominately from laboratory research (Charrington, et al., 1971; Yukl and Latham, 1975; Farr, 1976; Ivancevich; 1983) have provided ample evidence that performance-contingent pay causes subsequent performance and variability in satisfaction according to performance level (that is, satisfaction expressed by high performers increases while that of low performers declines). Additional support of this empirical conclusion has been found in field studies as well, in both static correlational studies (cf: Porter and Lawler, 1968; Lawler, 1971) and in longitudinal investigations (cf: Greene, 1973; Podsakoff, et al., 1982). Most of this work, however, has focused on managerial and executive compensation (Schuler, 1984) and, as Dyer and Schwab (1982) have noted, much of it is of uncertain rigor

The Trend Away from Performance-Based Pay

Almost concurrently, although not necessarily related, there have been a number of company reports in the popular literature beginning the mid 70's (e.g., Hamner, 1974) and extending to present day (cf: Newman, 1988) of "success stories" with pay incentive plans. When these reports, sketchy as they may be, are combined with research results on the topic, they logically lead to the expectation that organizational reward systems should be designed to pay employees for their performance. Indeed, such reward systems are so widely accepted in some organizations, (Lincoln Electric, for example) that it may seem that they are universally accepted. Unfortunately, this simply is not the case. True, there have been reports of increasing use of performance-based pay systems, usually in the form of profit-sharing and incentive bonuses, but predominately at executive levels (e.g., Tharp, 1986) and in high technology industries (Balkin and Gomez-Mejia, 1985). However, there also is a very clear trend that has been developing for a number of years--a trend away from use of such systems at the

operative level. For example, Evans' 1970 survey of Fortune's "500" firms reported that only one-fourth of the organization sampled consider pay as a primary determinant of blue-collar compensation. Less than half (or 7 percent) of these forms even utilized formal performance appraisals for compensation decisions. Other surveys (e.g., Stelluto, 1969; Cox, 1971) provide still further documentation of the trend away from performance-related compensation plans--a trend that began as early as the mid-40's and continues today but in the service industries as well. Hay Management Consultants, as reported by the Wall Street Journal (November 15, 1985), found that only 11 percent of the 600 service companies they surveyed attempted to link employees' performance to their pay. Similarly, the Wyatt Company's recent "Work America" survey of over 5,000 hourly and salaried employees revealed that only 28 percent compared to 40 percent five years ago, see a positive relationship between their pay and performance (The Conference Board, 1988)!

The Present Study

There have been a number of investigations over the past two decades on this topic--relationships among pay, satisfaction, and performance--and the evidence thus far has been rather impressive. There has not been, however, a field experiment conducted on this topic involving the effects of the removal of a performance-based pay plan. The purpose of this study was to examine the effects of removing such a pay plan on subsequent employee satisfaction and performance. This particular study may also be considered as more representative of industry practice (that is, rightly or wrongly reducing emphasis on performance-contingent pay systems) than the recent glowing testimonials (e.g., Newman, 1988, Tharp, 1986) of management's increasing interest in performance-contingent reward systems would imply. The results should provide additional evidence from a rather unique circumstance, the removal of a performance-based pay system, concerning the soundness of management decisions to reduce emphasis on pay incentives for operative personnel.

Method

Research Sites

The research sites consisted of two autonomous plants of a large manufacturer of paper and forest products. The only significant difference between the two plants is the pay system employed. One plant represents an example of the trend away from use of performance-contingent pay plans. This plant, after four years, abandoned its pay incentive plan, largely because of what appears to have been poor management-employee relations and problems encountered in applying the pay incentive plan--as evidenced, according to plant management, by an excessive amount of complaints and formal grievances related to the pay plan and union opposition to it. As a result, plant management removed the pay incentive system and implemented in its place a flat-rate pay system at the operative level with automatic progression of rate range and seniority as the primary determinant of advancement. Wage levels are to be made equal over time to the average wage level under the incentive plan plus a factor added for cost-of-living increases.

The second plant, which served as the control group, has for the past several years employed an incentive plan virtually identical to the plan abandoned by the first plant (the experimental group). The incentive plan, which was developed for both plants with the assistance of the division personnel staff, involves a conventional appraisal system with one common set of job responsibilities and performance criteria for production personnel and another for personnel performing support functions. Appraisals are conducted monthly by the subordinate's immediate supervisor (firstline manager) according to the following procedure. For each appraisal, the supervisor first compares the subordinate's performance with that of all other

subordinates on several dimensions of work. Next, the supervisor provides an overall, global evaluation by averaging his or her evaluations (judgments) on each of the appraisal dimensions that he or she selected for a given subordinate. These particular appraisal results are the major determinants, in conjunction with changes in plant productivity, of the monthly wage incentive for operative personnel. Operative personnel could earn from 0 to 10 percent of their base pay on the basis of monthly increases in plant productivity and up to 20 percent on the basis of their individual performance (the pay incentive).

Sample

The sample at the plant that abandoned the pay incentive (the experimental plant) was comprised of 392 operative personnel while the control group consisted of 546 operative employees. The subjects in the two plants are comparable on a number of dimensions; there are no significant differences between plants in terms of employees' tenure, salary, and gender. The tasks performed by the subjects are identical at both plants and include production jobs (e.g., washer operator, refiner operator, backtender, pulping helper, turbine operator, and limekiln operator) and support jobs (e.g., maintenance; vehicle operators; shipping, scaling, and testing jobs; and fabrication). Furthermore, the two plants themselves are identical with respect to organization and product, part of the same company division and are organized by the same union.

Measures

Consistent with the process by which the pay incentive was determined, just discussed, each employee's performance was assessed by means of an overall, global evaluation by his or her immediate superior. This appraisal represents of summary of the individual's performance on relevant job dimensions identified initially by means of the Position Analysis Questionnaire (McCormick, Jeannerat, and Mecham, 1972) as applied to jobs in the paper industry. The global evaluation was recorded on a nine-point scale with anchor points extending from 1.00-2.99 (low performance), 3.00-6.99 (medium or average performance), and 7.00-9.00 (high performance). The range of performance scores extended from 1.00 to 8.95 for both the "before" and "after" conditions.

Employee expressions of satisfaction were assessed by means of the Job Description Index (J.D.I.), developed by Smith, Kendall, and Hulin (1969). It consists of 72 items measuring five components satisfaction: satisfaction with work, pay, supervision, and satisfaction with one's coworkers. Extensive research has shown the J.D.I. to be a reliable and valid measure of satisfaction. In the present study, the reliability coefficients (Spearman-Brown Method) extended from .74 to .86 (all p's $<.01$) for all five satisfaction dimensions. Formal grievances and turnover are objective measures of satisfaction that were obtained from plant records.

Analytical Procedures

A "before-and-after" design was employed with identical measures of all variables--employee performance, the five self-report satisfaction variables, grievances, and turnover--taken from the same subjects at two points in time. The "before" (pre-change) measures were obtained two months prior to the removal of performance-contingent pay plan in the experimental plant. The "after" (post-change) measures were obtained 12 months after the pay incentive was removed (or 14 months after the "before" measures were taken). Neither operative nor supervisory personnel in the experimental plant were informed of the change in the pay plan until two weeks prior to its implementation (or approximately six weeks after the before-measures were taken). Furthermore, there were no indications whatsoever that the subjects had any knowledge of the pending change when the before-measure data were collected.

Mean scores on the employee performance ratings were computed for each of the two time periods and then "change scores" (differences between the "before" and "after" means, experimental versus control) were calculated and the significance of differences in the change scores were calculated by means of t tests. In like fashion, z tests were utilized to test significance of differences (proportions) between in changes in pay-related grievances and turnover rates in the two plants.

Because of the high intercorrelations obtained among the five self-report satisfaction measures (note the intercorrelation matrix presented in Table 1), a repeated measures multivariate analysis of variance (MANOVA) was employed for this particular analysis in lieu of change scores. The MANOVA procedure is appropriate here since there are several interrelated variables that need to be analyzed simultaneously (cf: Borgen and Selling, 1978). Following use of the MANOVA procedure, univariate F tests were employed to determine the significance of the changes in each of the five satisfaction measures. Last, t tests were utilized to assess changes in the satisfaction scores by performance level.

As a preliminary step in the analysis, however, the equivalence of the experimental and control plants on all variables was assessed first. This was accomplished using the "before-change" data by computing t tests of the significance of differences between the two plants on employee performance and the five self-report satisfaction measures and z tests for the measures of plant productivity, grievances, and turnover.

Predictions

On the basis of prior research findings concerning the effects of performance-contingent rewards, discussed and/or referenced earlier, it was predicted that performance would decline over time in the experimental plant and that the mean performance would be significantly lower than that experienced in the control plant, as a direct result of removal of the pay incentive. While one might expect overall satisfaction to decline in the experimental condition, no specific predictions were made with two exceptions. One would anticipate high performers in the experimental group to express progressively greater dissatisfaction, particularly with pay and supervision, given that their high performance would no longer be differentially rewarded monetarily. For the same reason, both behavioral indications of dissatisfaction, pay-related grievances and turnover, would increase among high performers. One might also make the opposite predictions about low performers given that the performance-contingent pay plan and supervision, who administered the plan, presumedly represented sources of punishment for them. Similarly, pay-motivated grievances and turnover should decline among this group. Whether or not these counterbalancing effects occur, and "wash-out" the overall effects on employee satisfaction is, however, an empirical question.

Results and Discussion

With exception of three of the self-report satisfaction measures, none of the results of the t and z tests for differences between the experimental and control plants, before removal of the pay incentive, were significant (all t's/z's$\leq$ 1.25, all p's$\geq$.21). Differences between the plants concerning the self-report measures of satisfaction with supervision, promotion, and coworkers were significant (t values extending from 7.41 to 3.26, p's <.01). These means as well as the intercorrelations are reported in Table 1.

Employee Performance

As depicted in Figure 1-A, employees' performance, as assessed by their immediate supervisors, declined significantly in the experimental plant ($t = 21.71$, $p < .01$) after removal of the pay incentive while remaining virtually unchanged in the control group. As one would expect, the difference in these

changes in performance between the two plants also was highly significant ($t = 12.57$, $p < .01$). However, what is more revealing is what happened to performance within each of the three performance levels in the experimental group, not the control plant where performance remain unchanged. As the results presented in Figure 1-B illustrate, performance declined significantly in both the average and high performance levels and particularly among the high performers (t's = 7.72 and 9.38, respectively, all p's <.01). After withdrawal of the pay incentive, evidently both average and high performers alike saw considerable less reason for exerting effort to sustain their good performance. For similar reasons, the performance of low performers was virtually unchanged. In other words, the low performers continued to perform poorly at least in part because of the absence of both monetary inducement to improve and punishment (represented by withholding pay and low ratings).

Plant Productivity

During the same period after the pay incentive was abandoned, productivity (assessed from company composite records of output and quality; e.g., scrap, rework) declined by almost 20 percent in the experimental plant. Over the same twelve months, productivity increased by about 2 percent in the control plant and there were no economic or industry factors that impacted one plant more than the other or any major changes in operations initiated by either. While there may have been other contributing factors (e.g., poor planning) that were not taken into account in the present study, it would seem appropriate nonetheless to at least speculate that dropping the incentive plan majorly affected productivity. Certainly, when one considers the net effect of all the findings discussed thus far, it argues strongly for management's need to rethink the importance of performance-based rewards in general.

Employee Expressions of Satisfaction

Multivariate analysis. Results of the repeated measures MANOVA indicate that the main effects of groups and time periods are both significant (multivariate $F = 15.61$, $df = 5/932$, $p < .001$ and multi-variate $f = 35.39$, $df = 5/932$, $p < .001$, respectively). More importantly, the groups x time interaction is also significant (multivariate $F = 26.79$, $df = 5/932$, $p < .001$) thus indicating that there are significant differences between the experimental and control plants in employees' expressions of satisfaction that are directly attributable to removal of the pay incentive.

Univariate Analysis. As discussed earlier, repeated measures ANOVA were employed to determine which of the five satisfaction measures changed and, as revealed primarily by the group x time interaction, whether it increased or decreased as a result of withdrawal of the pay incentive. These findings are presented in Table 2 and the means for both plants, "before" and "after," were reported in Table 1. Interestingly, this analysis revealed significant (all p's <.01) although counterbalancing changes in only three of the five satisfaction measures: satisfaction with work and with promotion opportunities declined (F's = 25.78 and 71.04, respectively) while satisfaction with one's immediate supervisor increased ($F = 13.37$). What is a little surprising are the seemingly contradictory effects on satisfaction with promotion opportunities and with supervision. One logical explanation involves the central role that immediate supervision once had. Prior to removal of the pay incentive in the experimental plant, it was the performance appraisal conducted by one's immediate supervisor that not only determined the magnitude of the monetary incentive received by individual subordinates but also played a role along with seniority in promotion decisions. Thus one might expect that aspirations of promotion would decline given removal of one of the determinants of promotability. The overall increase in satisfaction with supervision may be explained by variability in performance. Under a performance-contingent pay system, one would anticipate that low performers, because they are

TABLE 1

Descriptive Statistics and Intercorrelations for Satisfaction Measures

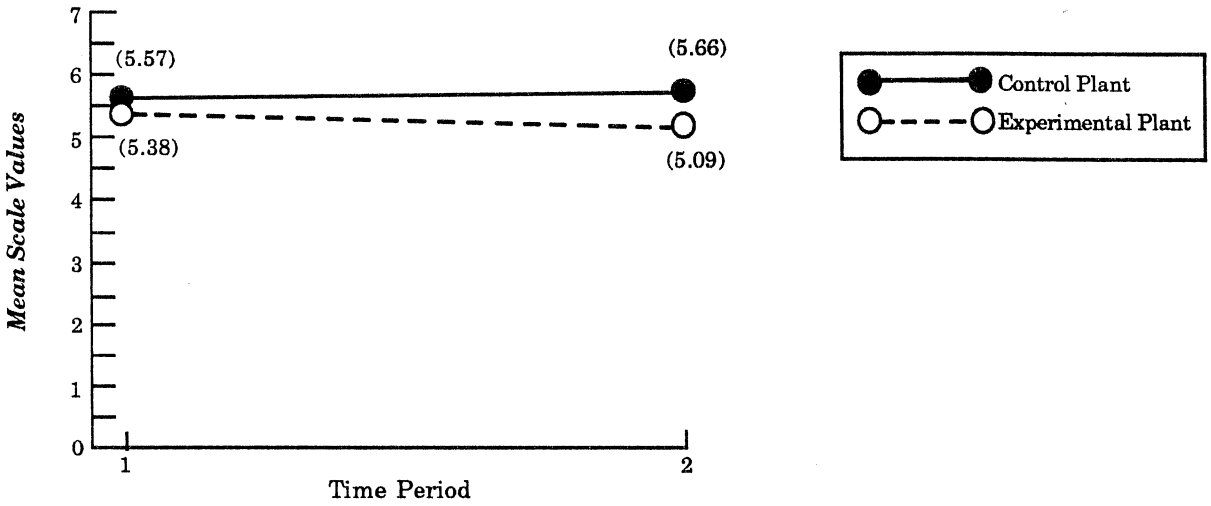
	Variable	Before and After Means and Standard Deviations								Intercorrelations Before [a]				
		Experimental (N=392)				Control (N=546)								
		Before		After		Before		After						
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	1	2	3	4	5
1.	Satisfaction with Work	35.38	7.05	33.28	6.87	36.37	10.12	35.80	9.97	1.00	.57*	.52*	.60*	.31*
2.	Satisfaction with Pay	17.19	4.04	17.25	5.32	17.99	8.24	17.93	8.00		1.00	.71*	.78*	.55*
3.	Satisfaction with Promotion	16.06	8.86	15.21	9.14	17.97	9.03	18.95	9.00			1.00	.65*	.56*
4.	Satisfaction with Supervision	35.26	7.83	36.50	6.90	39.68	9.77	39.64	10.51				1.00	.62*
5.	Satisfaction with Coworkers	39.10	10.36	39.82	10.10	42.12	9.46	42.92	8.89					1.00

[a] Both groups combined; N = 938.

* p .01 (two-tailed tests of significance)

FIGURE 1
Mean Scale of Values of Performance

A. Experimental Versus Control Plants



B. Performance of High, Average, and Low Performance in Experimental Plant

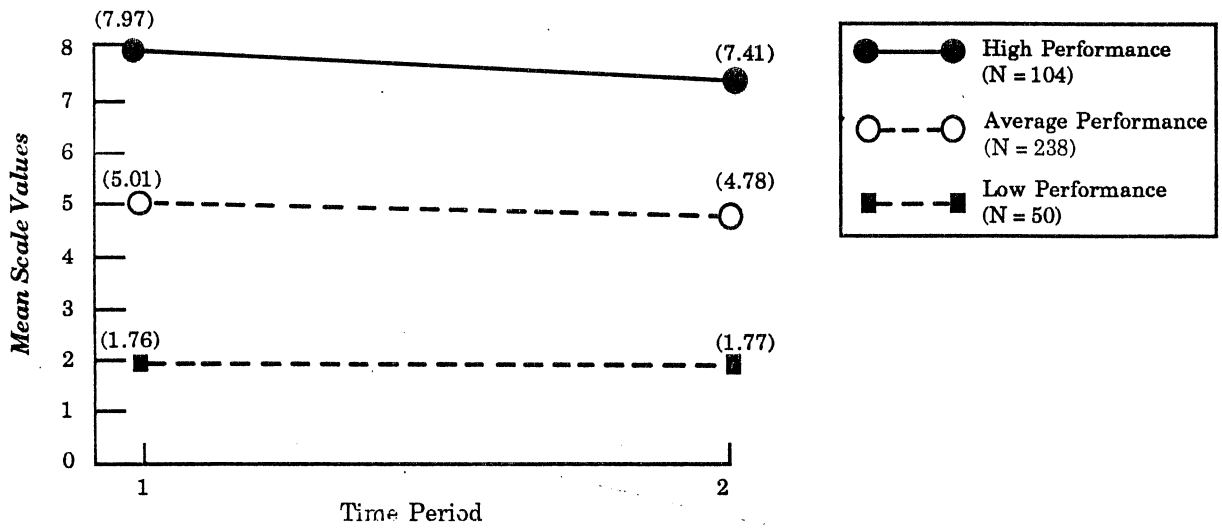


TABLE 2

Analysis of Variance of Differences in
Satisfaction Measures Between Experimental and Control Plants

Source	SS	df	MS	F Value
Satisfaction with Work				
Between S's				
Group	1414.62619	1	1414.62619	9.59**
Error between	138058.77253	936	147.49869	
Within S's				
Time period	816.76538	1	816.76538	77.44**
Group x time interaction	271.89758	1	271.89758	25.78**
Error within	9872.20477	936	10.54723	
Satisfaction with Pay				
Between S's				
Group	251.11284	1	251.11284	2.90*
Error between	80910.28588	936	86.44261	
Within S's				
Time period	.03638	1	.03638	.01ns
Group x time interaction	1.78265	1	1.78265	.20ns
Error within	8418.04464	936	8.99364	
Satisfaction with Promotion				
Between S's				
Group	3630.37888	1	3630.37888	23.12**
Error between	147004.37379	936	157.05595	
Within S's				
Time period	1.93892	1	1.93892	.36ns
Group x time interaction	381.80032	1	381.80032	71.04**
Error within	5030.44914	936	5.37441	
Satisfaction with Supervision				
Between S's				
Group	6519.24308	1	6519.24308	43.06**
Error between	141704.08101	936	151.39325	
Within S's				
Time period	165.35456	1	165.35456	11.81**
Group x time interaction	187.16053	1	187.16053	13.37**
Error within	13100.08467	936	13.99582	
Satisfaction with Coworkers				
Between S's				
Group	4281.96941	1	4281.96941	23.96**
Error between	167303.12654	936	178.74266	
Within S's				
Time period	261.85396	1	261.85396	38.52**
Group x time interaction	.57677	1	.57677	.20ns
Error within	6362.15244	936	6.79714	

*p < .10 (two-tailed tests of significance)

**p < .01 (two-tailed tests of significance)

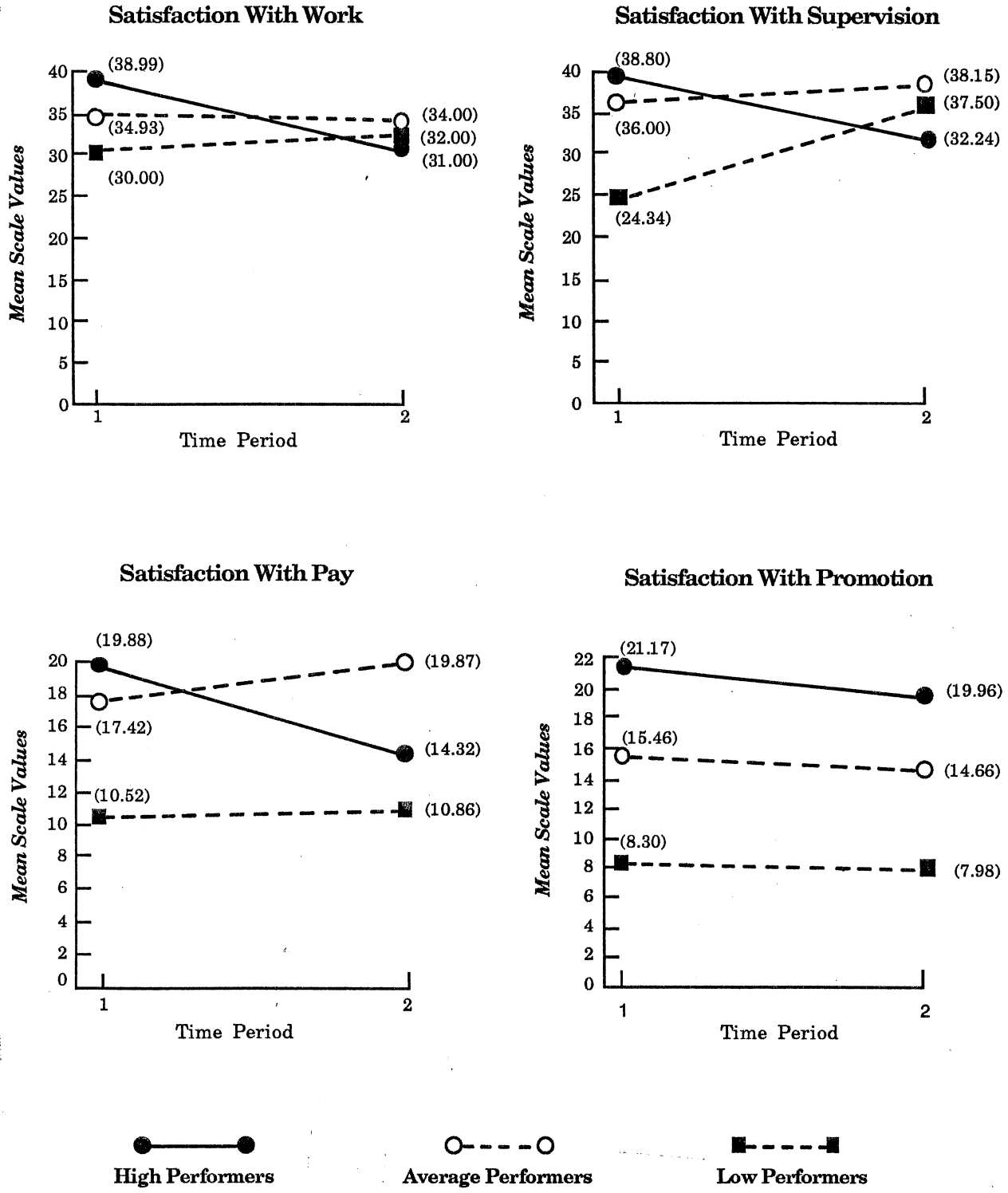
recipients of negative sanctions from their superiors (e.g., lower appraisal ratings and lower pay increases) would thus express less satisfaction with their supervisors. When such a pay system is abandoned, superior-subordinate relationships should improve and satisfaction with supervision increase. Conversely, the opposite may be said about high performers.

Moderating Effects of Performance. Following the line of reasoning just expressed, it is appropriate to consider the results concerning the moderating effects of performance. Following the procedure discussed in the "Methods" section, the sample in the two plants were segmented into the three performance levels. The results of this analysis in the experimental group revealed no significant differences between low, average, or high performers on satisfaction with coworkers (all t's ≤ 0.53, p's $\geq .60$). However, the results concerning the other satisfaction measures, most notably satisfaction with work, pay, and supervision, provide rather dramatic evidence or the counterbalancing effects of abandoning the pay incentive, as they are depicted in Figure 2. After withdrawal of the incentive plan, low performers' expressions of satisfaction with their immediate supervision increased significantly ($t = 14.75$, $p<.01$) presumedly because the supervisors now represent less of a source of negative sanctions. The counterbalancing effect is apparent at the high performance level as satisfaction with supervision declined markedly ($t = 14.48$, $p<.01$) as supervisors' power to positively reinforce high performers diminished with removal of the pay incentive.

While satisfaction with pay in the unmoderated condition remained virtually unchanged after removal of the pay incentive, it was predicted earlier that it would vary according to performance level. The rationale underlying this prediction stems from results of other research (e.g., Cherrington, et al., 1971; Greene, 1973) which have provided evidence that when performance-pay contingencies are understood and applied appropriately, high performers should be relatively better paid than low performers and hence express greater satisfaction. However, removal of such a reward system should result in smaller pay increases and thus declining satisfaction for high performers. Low performers, on the other hand, should welcome such a change. As the results in Figure 2 depict, these predictions are partially born out. Satisfaction with pay expressed by high performers did decline significantly ($t = 16.25$, $p <.01$) and increased among average performers ($t = 8.32$, $p <.01$). However, pay satisfaction of low performers instead of increasing remained unchanged ($t=0.38$, ns)! One plausible explanation of this surprising finding is that, after several years of being relatively underpaid, low performers may have become conditioned to lower pay or simply have given up. For essentially the same reasons, a very similar although more moderate pattern of results was obtained concerning satisfaction with promotion opportunities where the values of t are 4.90 ($p < .01$), 4.17 ($p <.01$), 0.84 (n.s.) for high, average, and low performers, respectively. The largest change, the decline in promotion opportunities expressed by high performers, may well have been the result of abandoning the performance appraisal system that not only provided the basis for determining the pay incentive but was a factor in determining promotability.

Satisfaction with work taps the intrinsic dimension of overall satisfaction but often it is not unrelated to one's feelings about other dimensions of satisfaction (cf. Smith, et al., 1969). As the results presented in Figure 2 reveal, this appears to be the case here. Satisfaction with work dropped significantly among high performers ($t = 14.52$, ($p < .01$) but, as one would now anticipate, it increased among low performers ($t = 7.23$, ($p < .01$). In other words, there was a so-called "bleed over effect" wherein feelings about work are affected by one's satisfaction with extrinsic factors surrounding work; that is, supervision, pay, and promotion opportunities.

FIGURE 2
Mean Scale Values of Satisfaction for High, Average, and Low Performers in Experimental Plant



Grievances and Turnover

The general tenure of the findings about attitudes toward work discussed thus far is one of declining satisfaction experienced by high performers and increased satisfaction by low performers. One would expect these attitudes to be reflected in grievance and turnover activity and they were. While grievances were down 40 percent overall and down 60 percent among low performers ($z = 4.86$, ($p < .01$) in the experimental plant the number of grievances submitted by high performers increased four times ($z = 10.20$, ($p < .01$)! Plant turnover declined slightly but 65 percent of those who voluntarily left were high performers, up from 30 percent from the year prior ($z = 7.98$, ($p < .01$). What has evidently happened is that those employees the organization wants least to stay, the low performers, continue to remain and yet valued high performers are leaving at an increasing rate.

Summary and Conclusions

This investigation conducted in a natural field setting provided evidence of negative, although sometimes counterbalancing effects, of reducing emphasis on performance-contingent pay plans. While employee satisfaction in general deteriorated as a result of withdrawal of the pay incentive, the effects were also found to vary by performance level. High performers' satisfaction with pay, supervision, and promotion opportunities declined significantly in the "experimental" plant and thus the organization began to lose its best people. Low performers, on the other hand, expressed significantly higher satisfaction with pay and supervision and, as one would expect, turnover among this group of employees declined and they continued to perform at a low level.

Removal of the pay incentive had even more damaging effects on employee performance and productivity. Employee performance declined significantly (mostly a result of loss of motivation experienced by high performers) and overall plant productivity dropped 20 percent! These particular results lend further support to the apparent negative consequences of nonperformance-contingent reward systems--especially when implementation of such a plan also involves the abandonment of a performance-based pay plan.

Given that this investigation was conducted within only one company in one industry, it is difficult to generalize the findings to all operative level jobs in manufacturing. However, the study does represent a rather unique example of the trend away from performance-based reward systems that has become so widespread at the operative level in manufacturing. While one may applaud the recent gains in productivity in this sector relative to our trading partners over the past decade, it is important to note that the gains were achieved primarily by means of cost-cutting measures, predominantly cutbacks in the labor force. Gains in output during this period ranked behind only those attained in Japan and Britain. However, the U.S. is now beginning to slip back again. The 1987 report of the Bureau of Labor Statistics (Koretz, 1988) shows a productivity gain of only 2.8 percent--a gain exceeded by Britain, Japan, and France--and non-farm productivity actually fell at an annual rate of 1.7 percent in the second quarter of 1988. Compensation over the same period rose by 3.5 percent (Business Week, August 22, 1988)! Clearly now is the time to make pay more contingent on performance.

References

1. Balkin, D.B. and L.R. Gomez-Mejia, "Compensation Practices in High Technology Industries," June 1985, Personnel Administrator, 111-123.
2. Borgen, F.H. and M.J. Selling, "Multivariate Statistics for Multi-variate Purposes," Journal of Applied Psychology, 1978, 63, 689-697.
3. Business Outlook Staff, "Labor Costs Are Headed Higher," Business Week, August 22, 1988, 24.
4. Cherrington, D.J., H.J. Reitz, and W.E. Scott, Jr., "Effects of Contingent and Noncontingent Reward on the Relationship Between Satisfaction and Task Performance," Journal of Applied Psychology, 1971, 55, 531-537.
5. Cox, J.H., "Time and Incentive Packages in Urban Areas," Monthly Labor Review, December 1971, 94, 53-56.

6. Dolan, C. "Many Companies Now Base Workers' Raises on Their Productivity," The Wall Street Journal, November 15, 1985, 1 and 15.
7. Dyer, L. and D. Schwab "Personnel/Human Resource Management Research," in D.J.B. Mitchell and L. Dyer, eds., Industrial Relations Research in the 1970's: Review and Appraisal, 1982, Madison, WI: Industrial Relations Research Association, 187-220.
8. Evans, W.A. "Pay for Performance: Fact or Fable," Personnel Journal, December 1970, 94, 726-731.
9. Farr. J.L.. "Incentive Schedules, Productivity, and Satisfaction in Work Groups: A Laboratory Study," Organizational Behavior and Human Performance, 1976, 17, 159-170.
10. Greene, C.N., "Causal Connections Among Managers' Merit Pay, Job Satisfaction, and Performance," Journal of Applied Psychology, 1973, 58, 95-100.
11. Heneman, R.L. and D.J. Cohen, "Supervisory and Employee Characteristics as Correlates of Employee Salary Increases," Personnel Psychology, 1988, 41, 345-360.
12. Ivancevich, J.M., "Contrast Effects in Performance Evaluation and Reward Practices," Academy of Management Journal, 1983, 26, 465-476.
13. Jorgenson, D.O., M.D. Dunnette, and R.D. Pritchard, "Effects of the Manipulation of a Performance-Reward Contingency in a Simulated Work Setting," Journal of Applied Psychology, 1973, 57, 271-280.
14. Koretz, G. "A Closer Look at U.S. Industry's Competitive Comeback," Business Week, July 25, 1988, 14.
15. Lawler, E.E., Pay and Organizational Effectiveness, 1971, New York: McGraw-Hill.
16. _____, Pay and Organization Development, 1981, Reading, MA: Addison-Wesley, 80-82.
17. McCormick, E.J., P.R. Jeanneret, and R.C. Mechem, "A Study of Job Characteristics and Job Dimensions as Based on the Position Analysis Questionnaire (PAQ)," Journal of Applied Psychology, 1973, Monograph 56, 347-368.
18. Newman, J. "Rewards in Organizations," in R.S. Schuler, S.A. Young-blood, and V.L. Huber, eds., Readings in Personnel and Human Resource Management, 1988, 3rd Ed., 267-274.
19. Podsakoff, P.M., W.D. Tudor, and R. Skov, "Effects of Leader Contingent and Noncontingent Reward and Punishment Behaviors on Subordinate Performance and Satisfaction," Academy of Management Journal, 1982, 25, 810-821.
20. Porter, L. and E.E. Lawler, Managerial Attitudes and Performance, 1968, Homewood, IL: Richard D. Irwin.
21. Schuler, R.S., Personnel and Human Resource Management, 1984, St. Paul: West Publishing, 338.
22. Smith, P.C., L.M. Kendall, and C.L. Hulin, The Measurement of Satisfaction in Work and Retirement, 1969, Chicago: Rand McNally.
23. Stelluto, E.L., "Report on Incentive Pay in Manufacturing Industries," Monthly Labor Review, July 1969, 92, 49-53.
24. Tharp, C.G., "Linking Annual Incentives to Individual Performance," Personnel Administrator, January 1986, 85-90.
25. The Conference Board, "A Monthly Briefing from the Conference Board," February, 1988, 7.
26. Yukl, G. and G. Latham, "Consequences of Reinforcement Schedules and Incentive Magnitudes for Employee Performance," Journal of Applied Psychology, 1975, 60, 294-298.