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## A META-ANALYTIC REVIEW OF ABSENTEEISM CONTROL METHODS

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*A meta-analysis was conducted to examine the effectiveness of absenteeism control methods used by organizations. The methods investigated were disciplinary measures, record-keeping and policy, financial incentive plans, game incentive plans, well-pay plans, public recognition, no fault absenteeism, participatory and imposed incentive plans, training, and performance appraisals. The results indicated that all absenteeism control methods except record keeping and game incentives decreased absenteeism. Recognition and well-pay appear to be the most effective methods.*

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### INTRODUCTION

According to a survey conducted by the U.S. National Center for Health Statistics (1987), absenteeism has increased from 417 million days lost in 1970 to a total of 570 million work days lost in 1985. In addition, companies today are increasingly spending more money for each employee absence due to increasing salaries, increasing insurance costs, increasing costs of productivity loss, and increasing costs of temporary replacements.

Mirvis and Lawler (1977) estimated the cost of absenteeism as \$66 per day per employee. This figure included salary, fringe benefits, estimated loss of profits, and costs associated with replacements. Taylor (1978) estimated total paid sick leave costs at approximately \$7 billion, or \$116 per employee per day. Due to the negative consequences of absenteeism, managers have become increasingly interested in attendance control policies that will lead to a meaningful reduction in unauthorized absenteeism.

Managerial concern for this increasing problem was first reflected in a national survey of approximately 200 organizations

conducted by the Bureau of National Affairs (1973). Seventy-nine percent of those responding indicated that absenteeism was their most serious disciplinary problem and 25 percent of the respondents stated that the absenteeism problem was more serious in 1973 than it was in 1968. In 1985, 60 percent of the participating organizations considered absenteeism to still be their most serious discipline problem.

Although the topic of absenteeism control has quite a long history, many of the earlier studies (Noland, 1945) were anecdotal in nature, and stressed the importance of a supervisory style that is responsive to worker needs. In addition, many of the more recent studies (Burns, 1980; Calco, 1963; & Seatter, 1961) are non-empirical anecdotes of particular absenteeism control methods that were successful in a particular organization.

The purpose of this article is to integrate the volume of past research examining absenteeism control methods and attempt to provide a more definitive answer to the question regarding which method, if any, is best in reducing employee absenteeism.



## META-ANALYSIS

Meta-analysis is a family of techniques used to aggregate research evidence across studies. Meta-analysis allows a quantitative cumulation of results across studies even when the construct of interest is assessed with different measures. Meta-analysis reduces the information processing required by reviewers and facilitates the drawing of accurate conclusions (Dobbins & Platz, 1986). According to Cooper and Rosenthal (1980), conclusions based on meta-analysis data are more accurate than conclusions reached with the narrative review, even when as few as seven studies are summarized.

A procedure described by Hunter, Schmidt, and Jackson (1982) was used to analyze the data in this study. This procedure was selected because unlike other methods, it can determine whether the conflicting findings of past research are a result of statistical sampling error or because of true differences in studies, samples, and locations.

## METHOD

### Sample of Studies

Eighty studies relating to the topic of absenteeism control methods were located. Studies were selected for inclusion in this meta-analysis if they met the following two criteria:

- 1) Each study had to report statistical or anecdotal evidence of decreasing or increasing absenteeism after the implementation of an absence control method; and
- 2) Anecdotal information had to be reflected by percentages to be included in the statistical analysis section of the meta-analysis.

Thirty-two of the original 80 studies met these two criteria and thus were included in the meta-analysis.

The studies used in the meta-analysis were identified by a manual search through the 1961 - 1988 volumes of both the Business Periodical Index and the Social Science Index. Additional studies were identified from reference lists of all identified studies

and from a book on absenteeism.

Many individual studies reported multiple experiments conducted either within the same organization or within different organizations. One article (Scott & Markham, 1982) reported survey results from 987 organizations regarding the effectiveness and use of several different control methods. This survey allowed multiple independent results to be coded. A total of 52 usable results were located in the 27 statistical studies.

### Meta-Analytic Calculations

The absenteeism increase or decrease reported in each study was converted into an effect size statistic ( $d$ ) using the methods recommended by Hunter, Schmidt, and Jackson (1982). Once outcomes for all studies had been converted into effect sizes ( $d$ ), several common statistical procedures were applied to summarize the findings of the studies.

## RESULTS

The results for the meta-analysis of the absenteeism control methods are shown in Table 1.

Table 1  
Meta-analysis results

Method	Studies	Effect Size
Well pay	4	.86
Flextime	10	.59
Compressed work schedules	5	.44
Discipline	12	.36
Recognition	6	.36
Wellness programs	6	.18
Financial incentives	7	.17
Games	6	-.08
Record Keeping	7	-.34

### Discipline

In the 12 studies investigating the effectiveness of various discipline measures such as suspension without pay, letters to spouses concerning lost earnings, and termination, the mean effect size was .36 indicating that the discipline methods has a moderate effect in decreasing absenteeism.

### Record Keeping and Policies

Seven studies investigating the effectiveness of record keeping and policy implementation for decreasing absenteeism resulted in a mean effect size of -.34 indicating that these methods actually increase absenteeism.

### Financial Incentives

The mean effect size for the seven studies examining the relationship between financial incentives and absenteeism is .17. Thus, though financial incentives work, they only have a small effect in reducing absenteeism.

### Games

The mean effect size for the seven game studies was -.08. Thus, games are not successful methods for reducing absenteeism.

### Well-Pay

Four studies on well-pay plans indicated that these plans had a large effect on reducing absenteeism as the mean effect size was .86.

### Recognition

Six studies examined the effect of recognition upon increased attendance. An overall effect size of .36 was discovered. Thus, recognition techniques such as giving attendance awards significantly reduced absenteeism.

### Other Methods

In addition to the methods mentioned above, two articles investigated the effective-

ness of several other methods. Because of the small number of studies, a complete meta-analysis could not be conducted. However the effect sizes across the two studies were .75 for no-fault absenteeism, 1.58 for participatory incentive plans, .07 for imposed incentive plans, and .14 for the use of performance appraisals.

## DISCUSSION

The present meta-analysis investigated a total of 11 absenteeism control methods in an attempt to determine the most effective methods for reducing absenteeism. Five of the seven primary methods significantly reduced absenteeism. Only record keeping measures and game incentives were not effective. The failure of record keeping may be that managers are inconsistent in enforcing attendance policies and the failure of game incentives may be due to the fact that the rewards were relatively small. Recognition methods and well-pay appear to be the best methods for decreasing absenteeism.

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