

ARBITRATOR DECISION MAKING IN SUBSTANCE ABUSE CASES

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ABSTRACT

The approach taken in this study is to regard substance abuse discharge cases as specific instances of discharge cases in general. Consequently, in trying to model arbitrators' decisions, the possible predictors of the outcome of arbitration hearings are derived from those factors found to significantly affect the outcome in earlier discharge studies. Discriminant analysis is used to determine those factors that significantly affected the outcomes of substance-abuse discharge cases in the period 1985-1993. While most of the predictors thought to influence arbitral decision making operated in the anticipated manner, there were some surprises. In particular, neither management's concern for safety nor the grievant's prior work record affected the outcome of the cases.

Over the past thirty years, the abuse of drugs, both licit and illicit, has increasingly pervaded the consciousness of American society in general and, more recently, of American industry. According to a recent survey undertaken by the Conference Board, business and industry in the United States loses approximately \$20.6 billion annually because of alcoholism alone [1]. When the losses of nonbusiness organizations are included, the figure swells to a staggering \$100 billion [1, 2].

While initially employers were reluctant to acknowledge the magnitude of the problem, they have responded with a combination of both corrective and deterrent measures [3-4]. Management in many businesses has either negotiated or unilaterally promulgated drug policies that have become part of the work rules at these firms. As a result of the sanctions inherent in these measures, penalties and other actions taken against employees who are alleged by their employers to have

violated drug policies have come before arbitrators with increasing frequency. In fact, a number of authors report that a significant percentage of all discharge cases involve either alcohol- or drug-related disciplinary issues [3, 5-8].

Although there have been a number of recent empirical studies (reviewed below) that try to determine the factors that most influence arbitrators' decisions in discharge cases involving drugs and alcohol, the view taken in this study is that these cases are best treated as a subset of all discharge cases. Thus, in trying to model arbitrator decision making in drug and alcohol discharge cases, one should first assess the impact of variables already determined to affect arbitral decisions in the broader category of all discharge cases. By then comparing the significant determinants of decision making in drug and alcohol discharge cases with those in discharge cases in general, one can appreciate both the common determining factors and the unique aspects of drug and alcohol cases.

REVIEW OF THE LITERATURE

Several studies have examined awards in disciplinary cases that involved alcohol and drug abuse. The first part of this section reviews a number of these cases.

Through extensive citation of published cases, Dennenberg [9] and Dennenberg and Dennenberg [5] have identified a number of criteria they believe arbitrators consider relevant when rendering decisions in drug and alcohol cases. These included degree-of-proof issues, related contract language, existence and relatedness of company rules, impact on company operations, rehabilitation considerations, past history of the grievant, and other issues. Although the authors provide no statistical evidence to support the importance of these factors, their studies have presented other researchers with a point of departure for more systematic inquiries.

In a series of studies, Marmo [8, 10, 11] addressed the issue of whether arbitrators pursue a disciplinary, rather than rehabilitative approach in drug and alcohol cases. While rehabilitative efforts were considered strongly in nearly all cases of behavioral problems associated with other forms of mental illness, they were far less likely to be considered in cases dealing with alcoholism and even less likely than that to be contemplated in cases of drug abuse [10, pp. 493-494]. Using the number of citations as a percentage of all cases as indicators of the relative weight that a factor possesses in arbitral decision making, Marmo concluded that lack of appropriate company rules, prior good work record, and relative seniority all influenced arbitrators in favor of employees' grievances. On the other hand, management tended to prevail more frequently when it could demonstrate that employee misconduct had serious repercussions for on-the-job

safety. These findings were largely replicated in a subsequent study by Coulson and Goldberg [6].

Geidt surveyed published labor arbitration awards to determine both standards of proof required and appropriate procedures to be followed if arbitrators are to uphold discipline in substance abuse cases [12]. He found that, generally, arbitrators opt for a "clear and convincing" evidence of guilt standard rather than the more lenient "preponderance of evidence" standard or the more stringent "beyond a reasonable doubt" standard. Further, Geidt contended that arbitrators tend to uphold management's discipline of an employee the more clearly and the more well-publicized an organization's drug and alcohol policy is, the more a system of progressive discipline is consistently applied, and the greater the opportunity provided an accused employee to rehabilitate himself/herself [12].

The studies cited above were all descriptive in nature. That is, while all were based on surveys of the labor arbitration awards, the inferences drawn were either impressionistic (i.e., subjective) or based on summary statistics that, while perhaps reflective, may not bear such inferences. There have been two studies, however, that construct statistical models of arbitral decision making in substance abuse cases. These studies use inferential statistics applied to those models to test whether arbitrator decisions can reliably be predicted on the basis of their stated rationales. Moreover, these methods (either logit or discriminate analysis) allow one to assess the relative contribution of individual factors (rationales) in arbitral decision making.

Thornicroft used stepwise discriminant analysis to construct "best" models of arbitrator decision making in drug-abuse discharge grievances and also in alcohol-abuse discharge grievances [3]. While the models for two different types of cases differed, Thornicroft found that evidentiary standards, relative seniority, prior work history, treatment for substance abuse, and safety considerations all figured prominently in arbitral decision making [3].

Using logit analysis, Crow, Stephens, and Sharp based a theoretical model of arbitrator decision making in substance-abuse discharge cases [13] on the notion of "just cause" as delineated first by Daugherty [14] and later elaborated by Koven and Smith [15]. These authors applied seven tests as standards to determine whether just cause for discipline existed. These tests are: 1) employees are properly notified of rules, 2) rules are reasonable, 3) management conducts a fair investigation, 4) management conducts a proper investigation, 5) there is proof of misconduct, 6) rules are applied consistently (i.e., equally), and 7) the penalty fits the offense. The authors found that in the cases where management prevailed, management was able to demonstrate in the arbitrator's eyes absolute proof of misconduct, consistency of their actions, and that the rule violation warranted the penalty. On the other hand, grievants tended to be successful in overturning disciplinary actions when they were able to demonstrate that employees were not

properly informed of work rules, that management's rules were not reasonable, and that management was not consistent in its application of discipline. Thus, if the grievant cannot successfully challenge the existence or the proper communication of substance-abuse rules, then the arbitrator focuses on management's handling of the case. If management did appropriately investigate the alleged infraction prior to imposing disciplinary sanctions, if it did prove the alleged misconduct to the satisfaction of the arbitrator, and if the penalty is reasonable in light of the potential consequences of the offense, then the chances of the discipline being upheld are extremely high.

A number of studies have examined arbitral criteria for discharge cases in general (i.e., over a wide variety of disciplinary issues). For example, Jennings and Wolters [16] and Rosenthal [17] used survey methods while Karim and Stone [18], Karim [19], and Karim [20] used inferential statistics to discern those factors thought to influence the outcome of discharge cases. A detailed analysis of each of these articles is beyond the scope of this inquiry. Instead, from an examination of these articles (in addition to those previously reviewed), a list of fourteen variables found or thought to influence the outcome of the discharge hearing by one or more of these was constructed. Table 1 contains the list of these variables with the expected correlation between management's discipline being upheld and the arbitrators' agreement with the statement. These items form the set of independent variables used to predict the outcomes of the discharge cases in this study.

DATA AND METHOD

The data set consists of 158 arbitration awards in discharge cases related to drug or alcohol use published by BNA in *Labor Arbitration Reports*. The time period during which these awards were published was 1985 to mid-1993. The data were coded on a 5-point scale that reflected the position of the arbitrator on each independent variable. The scale ran from 1, representing those statements with which the arbitrator expressed strong disagreement in his/her award, to 5, representing those statements with which the arbitrator expressed strong agreement. If the arbitrator expressed moderate disagreement or moderate agreement (i.e., assigned only moderate weight to an item), such statements were coded as 2 or 4 respectively. The middle position, 3, was usually assigned to those items of which an arbitrator made no mention in his/her award. Far less frequently, the arbitrator might raise an issue addressed in a statement, but then would take no position or assign no weight to that issue. In this case too, the middle position, 3, was assigned.

The dependent variable employed here is dichotomous and measures the outcome of arbitration. The two categories of outcome are: management's disciplinary sanctions are upheld by the arbitrator (assigned the number 0) or

Table 1. Variables and Expected Correlations

Variable (Label)	Expected Correlation with Management Win
1. Penalty was appropriate (APPROPEN).	positive
2. Work rules were not applied consistently (NOCON SIS).	negative
3. Credible management witness (CREDWIT).	positive
4. Management conducted a fair investigation (FAIRINV).	positive
5. Management conducted a proper investigation (PROPINV).	positive
6. Management's actions were reasonable (MGTREAS).	positive
7. Absolute proof of misconduct (PROOF).	positive
8. Substance-abuse rules were nonexistent (NORULES).	negative
9. Rules were not properly communicated (NOCOMM).	negative
10. Employee has a prior record of discipline (PRIORREC).	positive
11. Mitigating circumstances existed (MITIGATE).	negative
12. Safety was a major reason for disciplinary action (SAFETY).	positive
13. Management used progressive discipline (PROGDISC).	positive
14. Management tried to modify employee behavior (MODIFY).	positive

management's disciplinary sanctions are set aside or modified by the arbitrator (assigned the number 2).

Discriminant analysis is used here to distinguish between the two categories of outcome on the basis of the fourteen independent variables listed in Table 1. From such an analysis, one hopes to derive a basis for consistently predicting the outcome on the basis of the values of the fourteen predictors. In addition, the

discriminate function that allows the prediction also gives some indication of which predictors have a significant impact on the outcomes.

RESULTS

Among the 158 cases reviewed, management's discipline was upheld in seventy-six cases (48%), while the discipline was set aside or modified in eighty-two cases (52%). The almost even split of the decisions is consistent with earlier published research.

The discriminant function derived from the data was able to classify correctly all of the 158 cases. That is, it successfully predicted all seventy-six management "wins" and all eighty-two union "wins" on the basis of the values of the predictor variables. This suggests a very high degree of consistency (discussed further below) in arbitrators' decision making.

Table 2 contains the results of the statistical analysis as they relate to the significance of individual predictors in discriminating between the two outcomes (discipline upheld and discipline reversed or modified). After the variable name, the second column contains the coefficient of that variable in the discriminant function. The third column contains the variable loading on the discriminant function (i.e., the correlation of the variable with that function). Because the loading is a measure of the importance of a variable in the estimated discriminant function, the variables are ordered in Table 2 by decreasing absolute value of their loadings. The next two columns contain the mean value of the given variable first in these seventy-six cases in which the imposed discipline was upheld (Mean

Table 2. Significance of Individual Predictors

Variable	Coefficient	Loading	Mean Upheld	Mean Reversed	P-Value
APPROPEN	0.3049	0.5523	4.5790	1.1220	0.0000
CREDWIT	0.5718	0.5278	4.5526	1.1463	0.0000
MGTREAS	0.1447	0.4806	4.4211	1.1951	0.0000
NOCOMM	-0.6526	-0.4315	1.4211	4.1220	0.0000
PROOF	0.2319	0.4199	3.0000	1.1951	0.0000
MODIFY	0.1656	0.2610	3.0000	1.6829	0.0000
NORULES	0.8007	-0.2590	1.4474	3.4878	0.0000
PROPINV	0.2787	0.2565	4.4737	2.9024	0.0000
FAIRINV	0.0784	0.2458	4.5000	2.9268	0.0000
PROGDISC	0.2924	0.2443	3.0000	1.5610	0.0000
NOCONDIS	-0.4031	-0.2218	1.8684	3.4878	0.0000
MITIGATE	0.0382	-0.1430	1.1316	2.0732	0.0000
PRIORREC	-0.0762	-0.0112	1.7895	1.8537	0.2941
SAFETY	0.2146	-0.0072	4.0526	4.0976	0.4987

Upheld) and then in those eighty-two cases in which the discipline was reversed or modified (Mean Reversed). Finally, univariate analysis of variance tests (ANOVAs) were performed to test the statistical significance of the differences between these two means for each independent variable. The null hypothesis in these *F*-tests is that the means are equal. The last column reports the probability (*P*-value) that any differences in the means could be due simply to sampling error. The negligible *P*-values for all but the last two variables indicate that the mean value of each of the first twelve variables for those cases where discipline was upheld were significantly different from the means of the same variable in those cases where management discipline was reversed or modified.

DISCUSSION

That the derived discriminant function was able to predict correctly the outcomes of all 158 substance-abuse discharge cases is certainly extraordinary. The presence of no outlying cases suggests that arbitrators are remarkably consistent in their decisions (or, at least, in explaining those decisions). Viewed in the context of earlier statistical studies (cf. [3] and [13]), which had achieved classification rates of approximately 90 percent or better, the results here seem to reflect a general consensus among arbitrators in the handling of these cases.

Moreover, most of the variables that have been thought significant in the earlier studies do in fact contribute significantly to the prediction. If one considers only those variables having an absolute value greater than .2 as contributing significantly in the discriminant analysis, the first eleven variables in Table 2 all meet that criterion.

Comparing the mean value of each variable in cases in which discipline was upheld with its mean value in cases where the discipline was reversed or modified (using univariate ANOVAs) is instructive as well. For the eleven variables thought to be significant in the discriminant analysis, the direction of the differences in these means is as anticipated in Table 1, and these differences are statistically significant. To illustrate, consider the variable APPROPEN (penalty was appropriate). From Table 1, the anticipated positive correlation implies that arbitrators should more strongly agree with the statement in cases where management's discipline is upheld than in cases where the discipline is reversed or modified. Other things being equal, then, the mean value of APPROPEN should be greater (indicating greater agreement) for those cases where discipline is upheld. Columns 4 and 5 of Table 2 find precisely that. The mean value for APPROPEN in those cases where discipline is upheld is 4.58, while the mean value in cases where discipline is reversed or modified is 1.12. The negligible *P*-value of this difference implies that the difference in the means is systematic, not due to chance.

For those variables where arbitrator agreement with the underlying statement is expected to be positively correlated with a management "win," the mean value of

the variable should be higher in those cases where management does in fact win. Where the expected correlation is negative, the mean value of the variable should be lower in cases where management wins. Examination of columns 4 and 5 of Table 2 reveals that the direction of the differences of the means for each of the eleven significant predictors is as anticipated in Table 1. One may have some confidence that these variables not only contribute significantly to the prediction of the outcomes of substance-abuse discharge cases, but that they do so in the expected way.

Another statistical indicator of this consistency is that of the eleven significant predictors all those expected to have positive correlation also have factor loadings in the discriminant functions of the same sign (positive). Of those eleven, all those with expected negative correlation load on the discriminant function with opposite (negative) sign.

The factor loading for the variable MITIGATE (mitigating circumstances existed) does not allow the conclusion that it is a significant determinant in arbitral decision making. Yet, as expected, the mean of those cases in which discipline was upheld was significantly less than the mean in those cases where it was modified or reversed. In addition, MITIGATE is highly correlated ($|\rho| > .7$) with almost all the other significant predictors. Where such multicollinearity among the independent variables is present, assigning relative importance must be done cautiously. An appropriate conclusion, therefore, might simply be that the presence of mitigating circumstances in a substance-abuse discharge hearing has an effect of undetermined magnitude on the outcome. Further research is required to resolve the contribution of this variable to arbitral decision making in these matters.

Perhaps the most unforeseen aspect of this study is not so much the variables that were found to significantly predict outcomes in these discharge hearings, but rather the variables that appear to have little affect upon the outcome. Both a grievant's prior disciplinary record (PRIORREC) and management's concern for safety (SAFETY) seemed to have little impact on arbitrators' decision making. These variables had insignificant loadings on the discriminant function and were relatively uncorrelated with the other predictors ($|\rho| < .2$). Further, the results of the difference of the means between management "wins" and union "wins" is insignificant for both variables.

For SAFETY, contrary to expectations, the mean for cases in which discipline was reversed or modified was slightly greater than for cases where the discipline was upheld. One should note, however, that both means were very high (both greater than 4) indicating arbitrators' high level of recognition that safety was an important consideration for management. Simply, then, it is the lack of difference in the means that does not permit distinction between the outcomes. One interpretation of this result is that, because safety concerns are so endemic to virtually all these cases, these concerns are no longer determinative in decision making.

The insignificance of SAFETY and PRIORREC in this data set is particularly surprising in view of the importance that authors of previous studies have attached to them (e.g., [4, 8, 10, 12]). Again, further work in the area is needed to test the validity of the results here.

CONCLUSIONS

The discriminant analysis demonstrates that arbitrators' decisions in drug- and alcohol-related discharge cases are highly predictable from the reported characteristics of the cases. If one assumes that arbitrators' stated rationales in resolving cases reflect the true characteristics of the case, then the predictability of the outcomes suggests a high degree of consistency in the handling of these cases by the arbitrators. This suggests that there has been no significant change in the favorability of arbitrated discharges for management or the union.

The predicting characteristics were derived from a search of the literature on discharge cases in general. Although there were some unexpected omissions, eleven of the fourteen predictors contributed significantly to the prediction. Further tests of the data confirmed that those contributions were in the manner hypothesized in earlier studies. Examinations of the results regarding considerations show that eight have significant positive association with retention of discharge penalty, while three others are positively related with the decision being reversed or modified.

The variables positively related to penalty being upheld were: appropriate penalty (.55), credible management witness (.52), management action reasonable (.48), absolute proof of misconduct (.41), management tried to modify employee behavior (.26), management conducted proper investigation (.25), management conducted fair investigation (.24), and progressive discipline was utilized (.24).

Earlier research indicated that adherence to due process is a vital issue in retention of the discharge decision. The results confirm that. Appropriateness of penalty, reasonable management action, and proper and fair investigations are consistent with the notion of due process. Previous research has shown that in arbitration evidence is a very important factor and the high relationship of the variables credible witness and absolute proof of misconduct fits well with that finding. In industrial relations settings, discharge has been viewed by arbitrators as a "capital punishment," and generally they would like to give employees a second chance. This has been corroborated by the importance placed by arbitrators on management usage of progressive discipline and previous attempts to modify employee behavior. It appears that arbitrators are hesitant to discharge employees until and unless all other attempts have failed.

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