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ABSTRACT

This paper reports the results of a year-long study of practices associated with employee absence in the transit industry. The research focused on three areas: extraboard scheduling, workers' compensation, and occupational stress. An extensive review of prior research was conducted, and new data about both organizational policies and employee attitudes within California transit agencies were collected by mail surveys and analyzed statistically. Twenty-one organizations and 1039 operating employees from within California responded to the surveys. The research found that most organizations use judgmental methods for determining the size of the extraboard and that these methods are likely to result in extraboards that are either too large or too small. Strong relationships were identified between workers' compensation experience and equipment design and maintenance practices. Occupational stressors were strongly correlated with self-reported health outcomes and job attitudes. Suggestions are offered for managerial actions that would mitigate some of the problems identified by the research.

Each day transit managers and administrators are faced with complex issues that affect the productivity of their organizations. Between 1970 and 1980, transit operating expenses rose over five times faster than operating revenues (1). This difference can, in part, be explained by fares that have been held down to attract ridership, by increases in employee compensation, and by expansion of unprofitable routes into low density suburban areas. However, the fact that transit agencies were less productive in 1980 than in 1970 indicates a need to examine their policies and practices to determine if improvements can be made.

Previous research (2-6) has uncovered substantial inefficiencies in transit labor utilization. Since labor represents between 75%-80% of transit operating costs, any improvement in labor utilization holds promise for curtailment of overall operating expense. This paper summarizes the results and implications of a study supported by the State of California's Business, Transportation and Housing Agency in 1981-1982 (7). The research explored three facets of human resource productivity in public transit: extraboard scheduling (i.e., scheduling practices involving runs left open because of the absence of regular operators, work not selected by regular operators, or charter runs and special assignments); workers' compensation; and operator job stress.

These topics share a common attribute: they have all been associated with employee absence in the transit industry. Managers have isolated workers' compensation as a program that may serve as an incentive for employee absence because of the attractiveness of payments and potential claims fraud. Extraboards, too, have been viewed as an incentive for employee absence since they help assure a

ready pool of labor to replace absent employees. Operator stress has often been linked to these other issues both as a cause of workers' compensation claims and illness-related absence and as a result of inefficient scheduling practices which place undue strain on employees.

Our research sought to examine:

- Inefficiencies in current practices regarding extraboard sizing and scheduling, and the impact of these practices on transit operating costs and employee behaviors;
- The impact of transit agency size, policies, and employee demographics on workers' compensation claims and costs, and the potential for reducing these outcomes;
- The role of operator stress in overall agency costs and productivity, and the relationship between work schedules and employee attitudes, job performance and health; and
- The causes and possible countermeasures for the increasing rate of employee absence in the transit industry.

In conducting this study, we relied upon a number of information sources, including consultation with subject experts and the administration of three separate surveys to managerial and operating personnel within a sample of California transit agencies. As a preliminary step, we reviewed a large number of international studies of operator stress and occupational illness, workers' compensation, and operator absence behavior (8, 9). The results of these reviews are summarized below.

PREVIOUS RESEARCH

While research on transit employee absence has only recently received attention within the U.S. transit industry (10,11), a substantial body of foreign literature points to significant occupational risks which influence employee attendance. Results of this research indicate that transit operators appear to be more susceptible to health disorders such as heart disease and back problems than a variety of control groups. Occupational stress also appears to be directly related to absence from work. Transit operators are prone to illnesses that result in the use of sick leave, turnover, and early retirement. Some absences are probably induced by operator efforts to avoid stress on the job. Although injury-on-duty rates have not been clearly linked to stress, it also seems reasonable to expect an association between this work attendance outcome and stress.

An alternative model for explaining operator absence behavior is the income-leisure theory of workforce participation. This explanation posits that employers contract with employees, either explicitly or implicitly, for jobs with specified work schedules and wage rates. Some employees will accept jobs for which the hours of work exceed their preferences given the specified wage. They will thus retain an incentive to consume leisure and thereby be absent from work. Even employees who accept a work schedule at a given wage may choose not to report on days when relatively more attractive alternatives are available. The attractiveness of alternatives is, of course, a function of both the work and nonwork situation.

Although the income-leisure and occupational stress explanations for absence behavior are quite different, they are not mutually exclusive. Four recent case studies of U.S. transit organizations (12-16) provide a rich source of information on

the antecedents of employee absence from work. Multiple antecedents supportive of both the income-leisure and occupational stress explanations were isolated in each case study. The antecedents identified in these case studies are summarized in Table 1. Three general factors emerged as being of particular significance: widespread availability of overtime pay, which has made the economic benefits of attendance at regularly scheduled work less clear; scheduling inflexibility, which reduces the operators' opportunity to take time off when needed; and occupational stressors, among them tight schedules, long hours, split shifts, poorly maintained equipment, difficult interaction with passengers, and threat of physical violence.

The research reported below further investigated these relationships within a sample of twenty-one California public transit agencies. Special emphasis was placed on the impact of scheduling provisions on employee health, attitudes, and behaviors.

METHODS

Three survey instruments were developed and mailed to California transit agencies to obtain information about the basic issues addressed above. Two of the survey instruments, the extraboard and workers' compensation questionnaires, were directed to management and were completed by staff specialists in these areas. The third instrument, the transit operator questionnaire, was mailed in bulk to a designated agency representative for distribution to a stratified sample of transit operators.

Extraboard Survey

The extraboard questionnaire was mailed to twenty-one agencies with approximately fifty or more operators; responses were received from nineteen agencies. The questionnaire included twenty-nine items in three general

categories: procedures for managing the extraboard, extent of usage of the extraboard, and general background information about the transit agency. The questions on procedures for managing the extraboard permitted open-ended responses, providing a great deal of insight into the nature and diversity of management practices in utilizing the extraboard.

Additional information on extraboard practices was provided by a review of the labor agreements of participating agencies. Data from this source and from the survey were supplemented by results from a limited number of earlier studies on the operation of the extraboard (16-19).

Workers' Compensation Survey

The workers' compensation questionnaire was mailed to the same twenty-one transit agencies that received the extraboard questionnaire. Usable responses were received from fourteen agencies. The workers' compensation questionnaire was designed to provide information on agency policies and practices in the administration of workers' compensation, and data on the extent, cause, and cost of on-the-job injuries. The questionnaire included thirty-two items in six categories: injury and loss experience, general workers' compensation policies, specific policies for cost control, specific programs developed to limit workers' compensation claims, information on equipment condition and policies, and general characteristics of the workforce. Most questions were structured, requiring specific responses to a limited choice of options describing agency policies or practices. A few questions were open-ended, requesting a more detailed description of policies and practices. This information, supplemented by the results of other research studies, provided the basis for the analysis.

Transit Operator Survey

Thirteen agencies participated in the transit operator survey. Each transit agency provided a seniority list of its operators. From this list, a random sample of 1,783 operators was selected. The sample was designed to provide a cross-section of new operators, medium-term operators (e.g., with one or two years of experience up to five years experience), and longer-term operators. A total of 1,039 operators responded and returned completed questionnaires by mail.

The operator questionnaire included 118 items soliciting information on operator job characteristics and demographics; how well the operators' needs were satisfied by the job factors that were most important to them in bidding for assignments; extent of job exposure to unpleasant or hazardous conditions; frequency of certain desirable and undesirable job incidents; number of absences and general health conditions; degree of job satisfaction; feelings toward the organization; and job loyalty. Responses to these questions were tabulated and cross-tabulated to reveal relationships. These data were also compared with data from other research studies investigating operator attitudes and sources of job stress (20-29).

RESULTS

Extraboard Analysis

Methods for determining extraboard size. Most California transit agencies use subjective or judgmental methods as the primary means for determining extraboard size, relying on past experience or historical absence rates. In several instances however, agencies have used formal optimization models to determine extraboard size. The most commonly used formula was developed by Peat, Marwick, Mitchell & Company (10,17,18). This formula defines the optimum size of the extraboard as the

point at which the costs of non-scheduled operator overtime are balanced against the costs of guarantee pay for extraboard operators who are not used.

Allocation inefficiences. Subjective methods for determining extraboard sizing may result in extraboards that are either too large or too small. The industrywide costs of these allocation inefficiencies have been estimated as high as $50 million per year (17). Although transit managers acknowledge that as overtime becomes more available, employee absence rates will increase, they tend to understaff the extraboard and rely on regular operators to work overtime. Management believes that this strategy costs less in fringe benefits and wages than would the addition of employees to the operator list. However, what actually occurs is that operators who are forced to work overtime are more likely to take unscheduled days off because their normal schedules have been disrupted and they are assured of a pay equivalent of forty hours a week.

Operational problems. Several operational problems associated with extraboard scheduling were identified from our literature review and survey. Among these problems were:

1) Absence incentive, because fixed levels of employee absence based on historical patterns are built into schedules and because employees are aware that replacements are available;
2) Dispatcher error, or situations in which dispatchers rely upon or favor regular-day-off operators to fill open runs rather than extraboard operators;
3) Operator strain, resulting from long and irregular hours;
4) Operator-passenger relations, which may suffer from lack of predictable operator assignments and service reliability problems; and

5) Employee morale, when the extraboard is understaffed and regular-day-off operators must fill missed runs.

Workers' Compensation

Our analysis of workers' compensation was guided by a number of hypotheses developed from a detailed review of the literature. These hypotheses assessed the effects of a variety of factors, among them public policies, organizational and management policies, and equipment design and maintenance, on variations in workers' compensation claims and associated costs.

Claims experience. Workers' compensation claims in California transit agencies appeared to be extensive, but well within levels reported elsewhere in the transit industry (10, 14). For 1981, among fourteen organizations responding to our survey, 3,559 workers' compensation claims were filed for job-related injuries, averaging 37 for every 100 operators. The average cost per claim, based on the aggregate actual payments, was $1,519 or $589 per transit operator in 1981. The operators in our study experienced 3.07 days lost per employee, with an average labor cost per claim of $314.

Organizational policies for the control and prevention of workers' compensation claims. Many of the organizational policies recommended in the literature for preventing claims and minimizing cost had already been implemented by the transit agencies participating in our study. Among these policies and preventative programs were pre-employment medical screening, analysis of data on accidents and losses, and programs for controlling accidents and litigation. For the most part, these and other agency policies were not significantly related to higher or lower frequency, cost and severity of workers' compensation claims. The absence of significant associations, however, could not be interpreted as a lack of efficacy of

prescribed policies since there was relatively little variation in these policies among organizations in our sample.

Public policies. Our analysis contained no direct assessment of the strengths and weaknesses of existing workers' compensation law or policy. Our survey of management opinion did, however, reveal that public policies were perceived to be the dominant reason for current workers' compensation problems in transit agencies. The most significant problems identified were: "liberal interpretation of the law," "fraudulent claims," and "the medical diagnosis process." These findings mirror those of other recent research on workers' compensation, and suggest that policies external to the organization may offset internal attempts to effectively control the rising incidence and cost of workers' compensation.

Equipment design and maintenance. Our survey indicated that while one-third of all workers' compensation claims originate from equipment, most transit organizations had no means for evaluating potential liabilities stemming from different equipment designs. Lower workers' compensation experience was found in those transit agencies which evaluated vehicle specifications prior to purchase and in those agencies which reported a smaller percentage of the fleet out of service. These results from the workers' compensation survey corroborated results from open-ended comments on our operator survey. The most frequent complaint from operators about the working environment involved equipment conditions. The following comments from operators illustrate this complaint:

> "I got hurt driving a bus with very hard steering. I kept writing it up on defect code, but the buses are never fixed. As a result, I hurt my back."

"We need better designed buses with orthopedic seats for the driver. That will help cut down on injury to the back and tailbone."

"We have to drive old buses. Some are over 20 years old, drafty, noisy. . . leak water on the driver when in motion."

Operator Job Stress

One thousand and thirty-nine operators from thirteen transit agencies responded to our survey. Information was obtained on operator demographics, work schedules, job-related attitudes, job behaviors, and health. A majority of the respondents were male, high school graduates at minimum, married, between 30 and 50 years of age, and earning between $1,000 and $2,000 per month. Forty-seven percent of the operators surveyed were white, 29% were black, and 16% were Hispanic. Most respondents were regular operators who had been working for their current organization for more than five years.

Single and multi-factorial analyses revealed no systematic differences between regular and extraboard operators, or between operators employed by different transit agencies. The data were, therefore, collapsed across these factors.

Job attitudes. Operators indicated the degree of satisfaction they felt toward various aspects of their jobs by choosing one of the points on a 7-point scale; this scale ranged from very dissatisfied at the low end to very satisfied at the high end. Tabulated responses indicated that, in general, operators were slightly satisfied with their jobs and were at the midpoint of the scale (neither satisfied nor dissatisfied), on organizational commitment and on job involvement. Attitudes regarding the transit agency (e.g., organizational satisfaction, organizational commitment, and

membership commitment) were lower, on the average, than attitudes regarding one's role as an operator. This finding suggests that organizational components (e.g., biding and sick day policies, route lengths) may function as sources of job stress for transit operators.

Most of the demographic and job characteristics were not associated with job attitudes. The exceptions to this were age (with older operators reporting more positive attitudes) and education (with more educated operators reporting poorer job attitudes). In addition, married operators and operators on the job less than one year exhibited more positive job attitudes. Job attitudes seemed to be more strongly determined by external factors (e.g., environmental stress factors) than by internal factors. Environmental stressors, job risks, and employee abuse all had negative impacts on operator attitudes.

Health outcomes. The most commonly reported health symptoms were fatigue, insomnia, and back pain or stiffness. Generally these symptoms occurred about one to four times per month. Surprisingly, younger operators reported more frequent symptoms than older operators. Married operators reported fewer symptoms than either single or divorced operators. The only other demographic variable to distinguish health symptoms was sex: female operators reported more symptoms than males.

Job behaviors. Absence due to illness was measured by two questions--one measuring the number of days absent during the previous year, the other measuring the number of occasions absent during the previous year. The mean value of days absent was 10.7 (standard deviation = 27.02) and the mean value of occasions absent was 3.34 (standard deviation = 6.67). The standard deviation for these measures suggested a substantial variation of absence rates across operators. Operators

reported few missouts in the three months prior to completing the survey (mean = .55). Similarly, few operators responding reported filing workers' compensation claims in the last year (mean - 1.24, with 1 = no claims and 2 = 1 claim). Performance errors in the last month (e.g., traffic accidents, customer complaints, rule violations) occurred infrequently (mean = 1.32, where 1 = never and 2 = once or twice a month).

Factors affecting stress. In terms of exposure to environmental stressors (e.g., pollution, noise, dangerous equipment), the responses indicated that some exposure occurred, but not to a great extent. For job risks (e.g., risks of disease, personal attack, and traffic accidents), exposure was more common than for environmental stressors. Rewards for performance (e.g., compliments, recognition of good service) were reported to occur a little over once or twice per month (mean of performance errors = 2.21 with 2 = once or twice and 3 = about once a week). Employee abuse from passengers (e.g., verbal abuse, passenger refusing to pay a fare) occurred with about equal frequency (mean of job abuse = 2.20 with 2 = once or twice and 3 = about once per week).

Schedule needs and satisfaction. Operators were asked how important certain schedule characteristics were in their choice of work assignments. A parallel set of questions asked how much the operators' current schedule satisfied their needs in regard to each characteristic. From these two sets of questions, discrepancy scores were calculated that indicated whether operator needs were either exceeded or unmet by current work assignments. A relatively large percentage of operators indicated that their needs were exceeded in the following areas: pay (26%), overtime (31%), and variety in assignment (35%). However, operator responses reflected significant unmet needs for safety (49%), better fit between work and

home schedule (45%), ability to schedule non-work interests (40%), and convenience of eating and restroom facilities along their line (38%).

Predictors of job attitudes. Environmental stressors, job risks, employee abuse, and most of the positive discrepancy scores were negatively related to attitudinal outcomes. Job rewards, however, had a slight positive relationship with attitudes. Multiple regression analysis revealed that, of these, environmental stressors and employee abuse were the strongest predictors of job attitudes.

Predictors of health outcomes. As expected, the frequency of health symptoms increased as negative job attitudes and job behaviors increased. Regression analysis showed that environmental stressors and employee abuse were the strongest predictors of health symptoms. These findings shed some light on why younger operators report more symptoms. If younger operators have less chance of obtaining desirable routes, then it follows that their increased exposure to environmental stress on the undesirable routes would lead to more health problems.

Overtime work. Operators who received less overtime than preferred expressed a greater likelihood of leaving the organization. Operators who indicated an oversupply of overtime work also reported a significantly greater likelihood to leave. These operators also filed workers' compensation claims more frequently.

Scheduling and non-work interests. Conflicts between non-work interests and assigned work schedules were significantly related to a range of attitudinal, health, and behavioral outcomes. Unmet needs in combining work and family schedules, getting the right days off, and scheduling non-work interests were, in general, associated with lower job attitudes, higher intent to leave, more health symptoms, and higher levels of employee absence.

MANAGERIAL IMPLICATIONS

The large number of factors influencing absenteeism in transit preclude simple solutions. Furthermore, because some of the causes appear to be occupational in nature, radical changes may be necessary in order to make significant strides in reducing absenteeism. Our research on the subject leads us to conclude that a strategy composed of a minimum of six elements is necessary to deal successfully with absenteeism in transit.

Evaluate operator staffing levels. Because of the improvements in operator staffing that a few organizations have achieved by evaluating the size of their extraboard, we expect that similar assessments might contribute to successful changes elsewhere. The logical approach to such an evaluation would be for transit agencies to apply one of the optimization formulas currently available.

Develop an extraboard monitoring program. While an evaluation of the optimal size of the extraboard may remedy allocation inefficiencies, it will not resolve many of the operational problems associated with extraboards. Some of these problems, such as disruption of regular operator-passenger relations, are inevitable. There is some value, however, in developing a monitoring program that would provide the organization with information about these operational problems. As part of the monitoring program, performance data related to extraboard operations, such as employee absence, service reliability, and dispatcher performance, should be collected and reported regularly. These data, which might be reported separately for regular and extraboard operators, could be gathered in conjunction with current organization-wide or route-specific data collection activities.

This type of monitoring and reporting system could have several uses. It could serve as a warning system to indicate when allocation inefficiencies occur in

staffing. Since the equilibrium between the costs of non-scheduled operator overtime and the costs of guarantee pay for extraboard operators who are not used may be disturbed by unexpected events, the system would need to be reviewed regularly. The monitoring program would facilitate the accomplishment of this objective and would also help assess whether 'inevitable' problems associated with extraboard operatons stay within accepted boundaries. A monitoring program could be used both to develop operating standards and to evaluate their attainment. As an outgrowth of the development of standards, the monitoring system could also be used for goal setting and for managerial performance reviews.

A performance monitoring system already being used by the San Francisco Municipal Railway (18) is a good example of such a program for assessing extraboard operations. The performance measures monitored under this program include:

Unscheduled overtime

Missed service hours due to no operator

Guarantee pay hours (extraboard operators who are surplus, and report operators who do not catch out on a run)

Absenteeism (sick leave, missouts, and industrial leave)

Percent of optimum extraboard achieved

Using this program, and the standard management by objectives method, targets for MUNI are established for each quarter, and results are reported and evaluated.

Develop methods for decreasing workers' compensation liabilities stemming from equipment. Initial and continuing review of workers' compensation liability associated with equipment designs appears to be the single most important area for management action. A number of steps could be taken to improve performance in

this area. One step would be to involve workers' compensation and safety specialists in the preparation of vehicle specifications and evaluation of bids. Although the involvement of these specialists would appear to be an important risk management activity, it is apparently not widely practiced by California transit agencies. Their involvement in equipment purchase decisions would help to prevent procurements that perpetuate current liabilities and would broaden the perspectives and criteria against which equipment purchases are judged.

Another step would be to communicate the needs for risk management of equipment designs to industry and government organizations, such as the American Public Transit Association (APTA) and the Urban Mass Transportation Administration (UMTA). These particular organizations have, in the past, had significant influence on bus designs. The advanced design buses are a product of cooperation between these and other organizations. Although some risk management aspects of vehicle design can be controlled by an agency procuring vehicles, this issue also needs to be recognized by UMTA/APTA guidelines conveyed to potential suppliers.

Involving employees in the assessment of equipment-related liabilities may be another means of reducing workers' compensation costs. Obtaining feedback from employees about current or proposed equipment is often an efficient method for isolating problems.

Given the large proportion of compensation claims that are equipment related, there would appear to be advantages for analysis of the etiology of such claims. This type of analysis would be useful for isolating the precise causes underlying particular types of claims. In turn, the results could be used to develop remedial action (e.g., operator training, equipment redesign). These analyses could be

conducted either by in-house professionals trained for such special studies or by consultants, for those cases in which existing personnel cannot perform an analysis and the claim costs are expected to be reduced sufficiently to cover the additional fees.

Monitor and control dysfunctional overtime. Although optimal extraboard staffing may reduce dysfunctional overtime (e.g., amounts of overtime that result in employee turnover or physical strain), it is unlikely to eliminate it. Thus, it might be useful for transit agencies to develop means for monitoring and controlling excessive overtime. Payroll reporting systems could easily be modified to call the appropriate managers' attention to large amounts of overtime. If after study by management or by joint labor-management committees these amounts of overtime are found to have dysfunctional consequences, then changes in the labor contract would probably be needed. Among changes labor-management committees could consider is allocation of overtime as a reward for good attendance so that it becomes an incentive for reducing absence.

Increase the variety of work schedules available for bid. As they are presently designed, the work schedules available for bid appear to be quite satisfactory in meeting employees' needs for pay, overtime, and stability and variety of assignments. However, large numbers of employees find their work schedules inadequate for satisfyng other types of needs, such as the fit between their schedule and their family's. These results and open-ended responses suggest the prospect for increasing schedule suitability by increasing the different types of work schedules available for employee selection when work is bid. For example, types of schedules could be designed which provide more leisure time each week, more break time each day, and more integration between work and non-work pursuits. Among the

scheduling options that might increase suitability for a larger number of employees are the following:

1) Four shifts per week or 9-hour shifts with an extra day off every second week. This option would give employees moe leisure time. In order to become feasible, this plan would require the redefinition of premium pay in most labor agreements.

2) Building more break time into schedules. Our research clearly revealed operator concerns about the lack of lunch breaks or rest stops. Such breaks could be built into schedules and both employee health and job attitudes would improve in the long run. Whether these breaks were paid or unpaid could be negotiated, but since they meet expressed needs of employees our assumption is that, within limits, they would be unpaid.

3) Integrate split shifts with nonwork activities. A 1982 study of Swedish bus drivers (23) suggested that employees who could not get home during the break in a split shift usually had no meaningful use of that time. While one solution to this problem is to limit the proportion of split shifts, another is to expand opportunities for conversion of the break time between split shifts into meaningful pursuits. This might be achieved by locating garages near recreational and adult education resources, creating multipurpose ready rooms that would house recreational and educational activities, and permitting operators to return home during breaks.

4) Permit employes more flexibility to schedule absences upon sufficient advanced notice. Scheduling research suggests that anticipated absences are considerably less costly than unanticipated absences. Few transit organizations have taken advantage of this fact by developing scheduling practices that accommodate employee needs for greater flexibility.

Reduce sources of strain in the job environment. This is perhaps the area which permits the broadest scope of labor-management action, but also the area for which our recommendations are most tentative. The tentativeness of our suggestions rest on two observations. First, the employees' perceived environmental stress may actually be produced by the job and not by the environment. For example, tight schedules rather than "the environment" may be the cause of passenger abuse. Therefore, any action taken to lessen passenger abuse would probably be ineffective if the ultimate reasons underlying this source of environmental stress were misunderstood. Second, the costs and benefits of certain potential solutions are uncertain, and the costs associated with some solutions are quite high. For example, operators would be safer if security personnel were assigned to each bus, but the cost of this recommendation may be prohibitive.

Having expressed these reservations, there is nevertheless a general strategy that transit agencies might consider implementing while other solutions are being generated: initiate actions that will increase employee perception of the supportiveness of supervisors, the reasonableness of organizational policies, and the central role of employee needs and desires in union-management interaction. Although certain aspects of the urban environment may be immutable (e.g., crime and violence), how operators perceive the job environment and cope with environmental stressors is to some extent a function of social support for the operator. Our survey findings consistently indicate that many operators find sources of social support in their job environment to be deficient. Operators frequently expressed feelings such as: supervisors only see them to criticize, rarely to give praise or ask about their concerns; organizational policies are "stacked" against them (e.g., the customer is always right, the operator always wrong); any

suggestions for improvements from operators are unheeded; management and union leaders have lost sight of the workers' needs and desires.

Our research, supported by other studies of operator attitudes and job behavior (21,23,26) points to the need for substantial improvement of the quality of first-line supervision as a way of reducing operator stress and strain. Attention should also be directed toward programs which will increase the operators' ability to deal with passenger demands (29). Actions which alter the elements of the job environment and thereby reduce the operators' feelings of alienation and increase feelings of supportiveness can positively affect the whole range of employee responses, reducing the impact of job strain and associated health problems and improving job commitment and performance.

CONCLUSION

The results of this broad assessment of employee absence in transit indicated that extraboard scheduling, workers' compensation policies and practices, and operator job stress are important influences upon absenteeism. Although employee absence is the product of a complex set of variables related to the areas investigated in this study, it is only partially understood by researchers and practitioners. While transit organizations pursue multi-faceted programs to reduce absenteeism, further basic and evaluative research is needed on this critical productivity issue.

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TABLE 1

Summary of Concerns Expressed in Case Study Agencies

CHARACTERISTICS OF ABSENTEEISM	Southern California Rapid Transit District	Washington Metroplitan Area Transit Authority	Orange County Transit District	Utah Transit Authority
Polarized (i.e., some drivers haing exemplary attndance, others extreme offenders)	X	X	X	
Clustered around weekends and holidays	X	X	X	
MAJOR CONCERNS				
Environmental				
Poorly maintained equipment	X	X	X	X
Threat of physical violence	X	X		
Too fast a pace/unrealistic schedules		X	X	
Unsafe working conditions		X		
Long hours or irregular shifts	X	X	X	X
Problems with passengers	X	X	X	X
Organizational				
Lack of peer pressure for good attendance		X		
Lack of pre-employment screening		X	X	
Negative interaction with supervisors	X	X	X	X
Easy availability of overtime	X	X	X	
Lack of discipline for high absenteeism	X	X	X	
Lack of incentives for good performance		X	X	
Feelings that management is unresponsive to driver concerns	X	X	X	
Individual				
Changing work ethic/workforce composition	X	X	X	X
Need for more leisure time	X	X	X	X
Lack of flexibility in schedule assignments	X	X	X	X
Family problems caused by schedule	X	X	X	X