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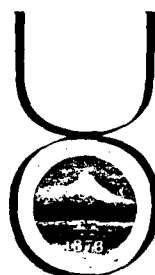
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The Consequences of Employee Commitment,
Turnover, and Absenteeism:
An Exploratory Analysis.

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the consequences are examined separately at the individual, work group, and organizational levels of analysis. In addition, at the individual level of analysis it is recognized that turnover and absenteeism may have different consequences for the person performing the behavior than other people who may observe it. Second, it is explicitly recognized that commitment, turnover, and absenteeism may have both positive and negative consequences at each level of analysis. Finally, situational factors that may determine the likelihood that given consequences will follow are identified and discussed.

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THE CONSEQUENCES OF EMPLOYEE COMMITMENT, TURNOVER, AND ABSENTEEISM:

AN EXPLORATORY ANALYSIS

Richard T. Mowday and Richard M. Steers, University of Oregon
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Organizational researchers have historically been far more interested in predicting employee attitudes and behaviors than in understanding their consequences (Steers & Mowday, 1981). This is particularly evident when employee turnover and absenteeism are considered. Reviews of the literature have identified a number of important antecedents of each behavior (Mobley et al., 1979; Muchinsky & Tuttle, 1979; Porter & Steers, 1973; Steers & Rhodes, 1978). Conspicuous by their absence, however, are systematic theoretical or empirical attempts to identify the consequences of these behaviors for individuals or organizations.

Somewhat more research attention has been given to the consequences of employee commitment to organizations. The interest of researchers in commitment, however, may be primarily the result of consistent relationships that have been found between this attitude and employee turnover and absenteeism. While it appears clear that employee commitment predicts behaviors like turnover and absenteeism, we still have a poor understanding of the consequences of these behaviors. Moreover, there appear to be a number of additional consequences of employee commitment that have yet to receive research attention.

Because of the limited information available on this topic, the purpose of this paper is to begin systematically examining the consequences of employee attitudes and behaviors in organizations. The discussion that follows will focus separately on the consequences of employee commitment, turnover, and absenteeism. While organizing the paper in this fashion is convenient

for purposes of discussion, it should be apparent that these variables are interrelated and they may share common consequences. While the causal nature of relationships among these variables is not yet entirely clear, it is possible that relationships exist in a sequential manner where one variable becomes a consequence of another. Turnover and absenteeism, for example, have been found to be important correlates of employee commitment. One likely sequential pattern of relationships among these variables is one in which declining commitment → increased absenteeism → turnover. This pattern is consistent with situations in which declining commitment causes employees to think about leaving the organization. The process of job search may increase absenteeism and, once a satisfactory job is found, turnover may result. Alternatively, employees often submit their resignation but remain on the job for a period of time prior to actual termination. In this situation, the pattern of relationships may look quite different (e.g., turnover → declining commitment → absenteeism). Other patterns of relationships among these variables could also be described. At this point it is sufficient to recognize that the variables to be discussed separately in this paper are in fact interrelated.

Three distinctions will be drawn in discussing the consequences of commitment, turnover, and absenteeism. First, consequences will be discussed at three levels of analysis. The discussion will focus separately on consequences for individuals, work groups, and organizations. In addition, a distinction will be drawn in the discussion of turnover and absenteeism at the individual level of analysis between consequences for the person performing the behavior (e.g., being absent or leaving) and observers of these behaviors (e.g., co-workers). Second a distinction will be drawn between

the positive and negative consequences of commitment, turnover, and absenteeism. While previous theory and research has most often suggested that commitment has positive consequences and turnover and absenteeism have negative consequences, a more balanced view suggests there may be positive and negative consequences associated with each. Finally, an attempt will be made to identify the conditions under which a particular consequence is more or less likely to occur. These conditions will be discussed as moderators of the relationship between a particular attitude or behavior and its consequences. As will become clear in the discussion below, whether or not a particular consequence follows from a behavior depends largely on personal and situational variables. With the exception of Staw's (1980) recent work on turnover, the consideration of moderating factors in these relationships has largely been ignored in previous work.

While much of the discussion will focus on potential consequences that have yet to be empirically investigated, the discussion will draw upon existing research and theory where possible. Several writers have recently attempted to identify possible consequences of employee turnover (Dalton & Tudor, 1979; Mobley, 1980; Price, 1977; Staw, 1980; Steers & Mowday, 1981). The discussion that follows will summarize this previous literature and attempt to extend the work that has already been done in this area. Although there is less previous theory and research to draw upon in considering the consequences of employee absenteeism, it is clear that absence behavior has important implications that should be considered in future research.

Consequences of Employee Commitment

The consequences of employee commitment to organizations for individuals, work groups, and the overall organization are summarized in Exhibit 1. The consequences will be discussed separately for each level of analysis below.

Insert Exhibit 1 About Here

Individuals

At the individual level of analysis, employee commitment to the organization has been found to result in increased effort on the job and reduced absenteeism, turnover, and tardiness (Mowday, Steers & Porter, 1979). While this research has been carried out at the individual level of analysis, these outcomes might be considered as consequences to the organization of high employee commitment. The primary concern of this research has been on the implications of commitment for different organizational effectiveness indicators (turnover and absenteeism). Thus, the positive consequences of commitment have been viewed as having fewer implications for individuals than organizations. A number of potential consequences of high commitment more directly relevant to individual employees will be considered in this section.

Positive consequences. High levels of commitment to an organization may be associated with such positive outcomes for individual employees as enhanced feelings of belonging, security, efficacy, goals and purpose in life, and a positive self-image. It is generally felt that most individuals desire some direction and purpose in their lives and the security that comes from attachments to stable institutions. Commitment to an organization can provide employees with stability and feelings of belonging. Moreover, a

positive self-image may result from identification with, and a contributing role in, a recognized organization. Individuals may also have other attachments such as to family or church. To the extent such non-work attachments are absent in a person's life, however, commitment to an organization may become even more important in shaping the self-image and feelings of belonging and contributing. The importance of commitment to an organization may be greatest for individuals with no family or social relationships outside of work. In addition, the more central and significant the job of the individual in the organization, the more likely positive personal outcomes may be derived from organizational commitments.

Since loyalty and commitment are valued in our society, we would also expect employee commitment to lead to greater organizational rewards. Committed employees, depending upon organizational reward policies, should be rewarded more highly for putting forth effort, continued membership, and loyalty than uncommitted employees. In addition, highly committed and loyal employees may be more attractive to alternative employers. While commitment itself may make it more difficult to attract individuals away from an organization, it is likely that competing employers would be attracted to employees who exhibit high levels of commitment to their current organization. The more visible the committed individual's position in the organization, the more likely the individual is to be attractive to other organizations.

Negative consequences. The benefits that might accrue to individuals from commitment to an organization may not be without associated costs. Although organizational researchers have most often approached commitment in terms of its positive benefits to the organization, it is important to consider that commitment may have negative consequences for the individual.

Highly committed individuals, for example, may reduce their opportunities for career advancement and mobility. In many occupations, career advancement is achieved by mobility between organizations. In addition, self-development and growth may result when individuals change jobs and assume new work-related challenges. Employees committed to a single organization, however, may forgo the possible benefits to be achieved by mobility. The extent to which committed employees reduce their opportunities for advancement and growth may depend upon the promotion policies of their organization and opportunities for mobility within the organization. However, it appears likely that commitment to an organization may sometimes result in significant opportunity costs for many employees.

High levels of commitment to an organization may also result in stress and tension in family and social relationships. In extreme cases of commitment to work or a career, individuals may invest time and energy in the organization at the expense of family and other obligations. For some committed employees, meaningful family and social relationships may never be developed. For others, family ties and friendships may be threatened as individuals invest heavily in work-related activities. The potential for commitment to the organization to disrupt non-work relationships may be greatest when the individual's job is highly demanding (e.g., professional positions that may require night and weekend work) and when individuals have family obligations (e.g., the individual is married with children). The conflicting pressures from commitment to the organization and felt obligations to the family may also be a source of high stress for the individual. A number of negative consequences may be associated with attempting to cope with conflicting demands from work and family.

Work Groups

Work groups in organizations have been extensively studied as a source of attachment for employees (cf., Cartwright, 1968). The implications for groups of member commitment to the larger organization, however, have been less extensively considered. The extent to which group members are committed to the organization may have several important implications for group processes and effectiveness.

Positive consequences. Groups that are composed of employees committed to the organization are likely to experience greater membership stability and effectiveness than groups with less committed members. Highly committed employees are less likely to be absent and turnover. Groups composed of committed members may thus be less likely to experience the disruptions associated with these behaviors, although membership instability may still occur as a result of normal transfers and promotions. In addition, the willingness of highly committed employees to exert effort on the job may result in greater work group effectiveness. Mowday et al. (1974) found the average level of commitment of employees in separate bank branches was related to the performance of those branches. Where group tasks are highly interdependent, commitment to the organization may also result in higher levels of group cohesiveness. The expression of commitment in highly interdependent work groups may result in greater task interaction and social involvement, both of which may serve to strengthen the cohesiveness of the group. Moreover, the belief of members in the goals and values of the organization may provide the group with a common focus and group goal. The effects of commitment on work groups may be greatest when commitment is widely distributed among the members of the group rather than isolated among a few individuals.

Negative consequences. The potential negative consequences of high levels of commitment are often identified as reduced creativity and adaptation. Although he focused specifically on group cohesiveness, Janis' (1972) work on "groupthink" suggests that groups composed of highly committed members may be less open to new ideas or values which question existing goals of the organization. In addition, the stable membership characteristic of committed work groups may also be a barrier to creativity. The lowered levels of turnover among such groups suggests they would be less likely to benefit from the new ideas and approaches brought to the group by new members. The extent to which high levels of commitment in groups result in reduced adaptation, however, may depend upon other factors such as frequent contact by group members with individuals outside the group, growth of the group that results in new members, and so forth.

It is also possible that higher levels of conflict may be found in groups where commitment is not widely shared by the members. When the goals of the work group and larger organization are viewed as incongruent by a majority of group members, the existence of high organization commitment among one or several members may be viewed as threatening to the group. Such highly committed members may be isolated by others in the group or subject to frequent attempts to influence their beliefs.

Organizations

Several studies of employee commitment suggest that organizations composed of highly committed members are more likely to be effective. Increased organizational effectiveness is thought to result from the increased effort members put forth in pursuit of the organization's goals and lower levels of

turnover, absenteeism, and tardiness (Angle & Perry, 1981). While reduced levels of turnover and absenteeism may result in lower expenses for the organization, there is reason to question whether lower levels of these behaviors always lead to greater effectiveness (cf., Dalton & Tudor, 1979; Mobley, 1980; Staw, 1980). The positive and negative consequences associated with turnover and absenteeism will be discussed at length in later sections. Since turnover and absenteeism can be viewed as both positive and negative consequences of commitment depending upon a number of situational variables, the discussion here will not focus separately on positive and negative consequences for organizations of high commitment. It is sufficient at this point to recognize that the outcomes commonly associated with high commitment may have both costs and benefits.

In addition to the outcomes mentioned above, organizations composed of highly committed members may be more attractive to individuals outside the organization. Highly committed employees are likely to describe the organization in positive terms to non-members. This may enhance the organization's ability to recruit and hire high quality employees. As with work groups, however, high levels of commitment may also result in lower levels of creativity and adaptation in organizations. Highly committed organization members may be less likely to question policies and recognize strategic opportunities that involve departures from past practices. This problem may be particularly evident when the executive ranks of the organization are characterized by high levels of commitment. John DeLorean's description of his experiences as an executive at General Motors (Wright, 1980), for example, suggest that overly high levels of commitment and loyalty at the top of an organization may stifle creativity and actually lead to decisions with di-

sastrous consequences (e.g., failing to correct apparent safety defects in the design of cars).

Consequences of Employee Turnover

The consequences of employee turnover have received considerably more theoretical attention than the consequences of either commitment or absenteeism. While most early writing on the consequences of turnover focused on the organizational level of analysis (Price, 1977), more recently writers have been concerned with the implications of turnover for individuals (Mobley, 1980; Staw, 1980; Steers & Mowday, 1981). The consequences of turnover for work groups has received less attention than the individual or organizational levels of analysis, although membership stability was a consideration in early research on groups (e.g., Ziller, 1965). In this section the consequences of turnover will be discussed at three levels of analysis: individual, work group, and organization. The discussion will summarize available research on this topic and extend previous research by suggesting several additional consequences that have not yet received consideration.

Individuals

At the individual level of analysis it is possible to distinguish the consequences of turnover for individuals leaving the organization and individuals who remain. This latter group of individuals would include co-workers and supervisors of the person leaving who might be effected by the leaver's decision. Since the consequences of turnover are quite different for each group (actors vs. observers), it is useful to treat each separately in the discussion below. The relationships to be discussed concerning the consequences of turnover for individuals are summarized in Exhibit 2.

Insert Exhibit 2 About Here

Leavers - positive consequences. For individuals deciding whether or not to leave an organization, there are often obvious advantages associated with turnover. A number of positive economic and job-related benefits may result from the turnover decision, although the likelihood that individuals will economically benefit from turnover may depend largely on conditions in the job market and the individual's skills and abilities. Many people who leave organizations are attracted to other jobs by higher salaries and better opportunities for career advancement. In many professions, mobility between organizations is commonly practiced by individuals seeking career advancement. Individuals with job skills and abilities that are in demand (e.g., engineers) are more likely to benefit from decisions to change jobs than individuals with fewer marketable skills.

In addition, turnover often provides the opportunity for individuals to improve their job situation in non-economic ways. Turnover may result in a better fit between the individual and the job. Many people leave organizations to take jobs that better utilize their skills or that offer greater satisfaction and reduced stress. Mid-career job changes provide employees with the chance to undertake a new challenge or to develop entirely new job skills (Hall, 1976). The similarity between the old and new job may be a crucial determinant of the consequences that follow from turnover. Turnover is most likely to result in stimulation and challenge when the old and new job are dissimilar, although for some taking a similar job in a new organization may in itself be stimulating. When individuals move between the same job in different organizations the types of positive consequences that result

from turnover are likely to be different than when the basic nature of the job changes.

Turnover may also be motivated by non-work factors. Individuals may change jobs, for example, as a way to move to more desirable geographic locations or to be closer (or farther away) from one's family. Whether these benefits result from turnover will of course depend on the individual's family status and the location of the old and new job. Individuals changing jobs may also benefit from the opportunity to make new friends among their co-workers. Turnover provides the opportunity for new friends and social activities, particularly for individuals who are likely to develop social involvements at work.

Finally, one outcome associated with turnover may be the opportunity to develop new commitments and loyalties to the employing organization. A change in jobs is likely to result in a shifting of loyalties from the old to new job (Steers & Mowday, 1981). Many people may enjoy the identification and sense of involvement that follows from establishing new commitments. Depending upon characteristics of the old and new job, individuals may develop a more positive self-image from new jobs that involve more significant roles in the organization or from the simple fact that they were attractive to another organization. The job market provides one objective test of an individual's attractiveness and value to others.

Leavers - negative consequences. Although a number of positive consequences of turnover can be identified, there may also be several costs associated with the decision to change jobs. For many individuals, turnover may involve the loss of seniority and non-vested benefits. The longer a person has worked in the old job, the greater the costs associated with turnover

may be. In addition, turnover may result in unreimbursed moving expenses and an increased cost of living resulting from moves between different parts of the country. Depending upon job market conditions and the skills of the individual involved, some employers may be willing to assume the extra costs associated with changing jobs. It is becoming increasingly more common for organizations to offer mortgage assistance, for example, to induce highly attractive employees to change jobs.

One set of negative consequences associated with turnover, however, may be less easily compensated by organizations. Changing jobs may be a significant source of stress, particularly when it involves moving from one city to another. Families with school age children in the home may find their lives particularly disrupted by the decision to change jobs. Ruch and Holmes (1971), for example, identified changes in line of work, residence, schools, recreation, church, and social activities as potential sources of stress. The amount of stress associated with changing jobs may be related to the similarity between the old and new job and the distance between the old and new employers.

The decision to change jobs may also threaten social relationships with previous co-workers and family ties. Even when turnover involves movement between jobs in the same location, social relationships with co-workers from the old job may become increasingly strained (Steers & Mowday, 1981). In addition, movement between jobs in different cities may increase distances between families. This may result in pressures from the family not to move or greater effort required to maintain family ties at previous levels.

Stayers - positive consequences. Although perhaps less obvious, the decision by individuals to leave an organization may also have implications

for those who remain. The impact of turnover on remaining employees represents an interesting but neglected area of study (Mowday, 1981; Steers & Mowday, 1981). One possible consequence of turnover for remaining employees is increased opportunities for advancement and promotion (Staw, 1980). When superiors in the organization leave, openings are created that may be filled by lower-level employees. Organizations that follow policies of promotion from within may find that turnover is viewed positively by their employees, particularly those who desire advancement in their career.

Increased opportunities for advancement alone may result in more positive attitudes among remaining employees following turnover. In addition, other factors associated with turnover may also serve to strengthen the attitudes of remaining employees. When the person leaving is not well-respected or liked by remaining employees, the decision of the individual to leave may be a source of satisfaction. Even when the person leaving is respected, however, remaining employees may strengthen their positive attitudes following turnover as a result of attempts to justify their own decision to remain. The need to justify remaining in the organization may depend upon the perceived reasons why others leave. Mowday (1981) suggested that the decision to leave a job because it is dissatisfying may be threatening to employees who remain. When this occurs, remaining employees may either distort the reasons why others leave or reevaluate the job and organization more positively to justify staying. Although evidence on these processes is limited, Mowday (1981) found that employees who were most highly committed to the organization were least likely to believe that others left because they found the job dissatisfying.

When the person leaving is a co-worker who is not particularly effective in performing his or her job, turnover may also lead to improved performance among remaining employees. The impact of turnover on the performance of remaining employees is likely to be greatest in situations where tasks are highly interdependent. When organizations are effective in encouraging poor performers to leave, however, it is likely that remaining employees will benefit. Turnover may also be of benefit to remaining employees in other ways. When open positions are filled by individuals outside the organization or from other departments, new employees may bring improved ideas about how to perform the job and increased levels of motivation. The introduction of new employees into a work group may be a source of stimulation for incumbent employees, both from new approaches to the job and from opportunities to develop friendships.

Turnover may also have an additional benefit to individuals. For many employees, the decision to remain in an organization may result from a lack of information about available alternatives or simple motivation to search for better opportunities. Turnover by co-workers may serve as a stimulus to remaining employees to reconsider their employment. In some cases, turnover by co-workers provides information about alternative job opportunities that may stimulate job search. A search for alternative jobs may result in the decision to leave, which for the individual could mean higher salary, improved working conditions, or better career opportunities. Even when job search does not lead to eventual turnover, the process of considering alternatives may make salient the positive features of the current position. There may be a natural tendency to believe that opportunities are better elsewhere (e.g., the "greener grass" phenomena). When these alternatives are actually explored, however, the individual may come to appreciate his or her current job even more.

Stayers - negative consequences. Some of the negative consequences of turnover for remaining employees follow from the previous discussion. Turnover may result in increased workloads for remaining employees and decreased performance, particularly where tasks are highly interdependent. It may take the organization some time to find a replacement for the individual who has left. During this period, the leaver's duties may have to be assumed by remaining employees. When leavers are key employees or high performers, the negative effects of turnover on remaining employees may be particularly severe. Remaining employees may experience increased work demands, stress, and uncertainty until the open position is filled. Even when a replacement is found, time may have to be devoted by employees to training the replacement or socializing the individual about group norms. On complex jobs, considerable time may be required before the new employee is able to effectively perform his or her task. This may increase demands upon other employees to work harder until the replacement can effectively perform the job.

In addition to increased work demands and uncertainty, other factors may lead to less positive attitudes among remaining employees. When open positions are filled from outside the organization, for example, dissatisfaction may result among current employees who were not promoted. It was already suggested that turnover by co-workers may stimulate a reevaluation of the job and search for better alternatives among remaining employees. Negative features of the job may become salient if the leaving employee is vocal about his or her dissatisfaction with the job. Moreover, the search for better alternative jobs may result in increased dissatisfaction. The word that better paying jobs or better working conditions are available in other organizations may spread quickly among remaining employees, resulting in general demoraliza-

tion and feelings of inequity. Also, when the person leaving is a close friend, remaining employees may find co-worker relations on the job less satisfying. For individuals with strong social involvements at work, the loss of a close friend or colleague may be particularly traumatic.

Work Groups

The consideration of work groups in organizations has been less prominent in the study of turnover than either individual or organizational level concerns. Although several characteristics of work groups have been identified as predictors of turnover (e.g., group cohesiveness), the impact of employee turnover on the work group has not received systematic attention for many years. Several early programs of research on group processes examined the effects of membership instability (see Meister, 1976 and Ziller, 1965 for a review of these studies). Recent concern with the consequences of turnover in organizations, however, has ignored the group dimension of analysis almost entirely. The importance of considering the consequences of turnover for groups is based on the important role work groups serve in organizations and the fact that turnover may have unique implications at the group level of analysis. The consequences of employee turnover for work groups to be discussed in this section are summarized in Exhibit 3.

Insert Exhibit 3 About Here

Positive consequences. The composition of groups is a major determinant of group effectiveness (Hackman & Morris, 1975; Shaw, 1981). For many types of tasks, the performance of the group will be controlled by the most competent group member (Steiner, 1972). Changes in the composition of groups

caused by member turnover is therefore likely to have an important influence on group effectiveness.

Turnover which results in new members being added to a group can influence effectiveness in a number of ways. New members may bring creative ideas, new approaches to solving problems, and needed skills and abilities to the group. Moreover, new members may be more likely to question group norms and procedures that may impede effectiveness. Whether or not turnover in groups increases group effectiveness, however, may depend upon a number of factors. First, the characteristics of the individuals leaving and joining the group are clearly important. Group effectiveness may be enhanced when the least proficient member leaves and the replacement brings needed skills and abilities to the group. Second, the extent to which turnover influences overall group effectiveness probably depends upon the nature of the tasks performed by the group. The impact of member turnover may be greatest, for example, when tasks are interdependent rather than independent. Third, characteristics of the group itself may influence the impact of member turnover. The effects of member turnover on group effectiveness may be less important for large than small groups. In addition, the cohesiveness of the group may influence the extent to which new members can question and influence group processes. The ability of new members to change operative norms of the group may be greater when the group is less cohesive.

Member turnover in groups may also influence the level of group cohesiveness. When the person leaving is an isolate or deviant member, cohesiveness among remaining group members may increase as a result of turnover. Moreover, conflict within groups may decrease when one of the parties to the conflict leaves. In this situation, group relations may become more harmonious following

turnover (Staw, 1980). The cohesiveness of work groups may also be influenced by turnover in another manner. When a group member leaves his or her work may have to be divided among remaining group members until a replacement is found. The burden of increased workloads shared by remaining group members may require higher levels of cooperation and coordination of efforts to insure that the total effectiveness of the group is not threatened. The added burden shared by group members and resulting cooperation required to insure the work gets done may bring the group closer together and thus increase cohesiveness.

Negative consequences. Although turnover may in some cases have positive implications for groups, it may also result in several problems that seriously threaten group effectiveness. Turnover in groups may disrupt both group processes and task performance, particularly when a key group member (e.g., leader) or high performer leaves. As suggested above, the extent to which member turnover negatively influences group performance will depend upon the characteristics of the person leaving, characteristics of the replacement, and nature of the task. In addition, turnover may be more disruptive in small groups and when turnover is a relatively rare rather than a predictable occurrence. Ziller (1965) suggested groups with high membership instability cope by increasing the structure of group relations and role specification. In highly structured groups with formally prescribed roles, the dependence of the group on any particular member or reliance on informal understandings among members may be decreased.

There may be other costs to groups associated with member turnover. Unless replacements are quickly found, group members may be forced to take-on the workload of the person leaving. The increased workload shared by members of the group may be a source of dissatisfaction and decrease the overall effec-

tiveness of the group. Groups may also have to expend considerable effort in socializing and training the new member. In highly cohesive groups, socializing new members about appropriate behavior may be considered particularly important by the group. When these socialization efforts are not entirely effective, conflict may result from adding a new member to the group. New members who do not consider existing group norms appropriate may generate considerable disagreement within the group and cause group members to devote substantial time to the task of "educating" the new member. Time spent by group members in training and socialization may come at the expense of time directed toward task accomplishment.

Organizations

The consequences of turnover have most often been considered at the organizational level of analysis (Mobley, 1980; Price, 1977; Staw, 1980). The reason is that costs associated with turnover have rather clear and straightforward implications for overall organization effectiveness (Steers, 1977). While the amount of turnover in an organization has generally been viewed as negatively related to effectiveness, the discussion below will suggest that this is not always the case. Rather, in certain circumstances, turnover may prove beneficial to organizations (cf., Dalton & Tudor, 1979). Dalton, Krackhardt, & Porter (in press), for example, found that 42% of the voluntary leavers in a sample of bank employees could be classified as poor performers and thus, from the organization's perspective, as "functional" turnover. An even higher percentage of these leavers were viewed as easily replaced by the organization. The fact that turnover at the organizational level of analysis may have both costs and benefits has been widely recognized

in recent years (Dalton & Tudor, 1979; Mobley, 1980; Staw, 1980). The discussion below will attempt to summarize this literature and specify the conditions under which turnover may have negative or positive consequences. The relationships to be discussed in this section are summarized in Exhibit 4.

Insert Exhibit 4 About Here

Positive consequences. The positive consequences of turnover for organizations may include increased innovation, employee motivation and morale, and overall effectiveness. For relatively stable organizations in which growth cannot be counted upon to create new positions, turnover may be one of the few ways to hire new employees. The addition of new members, as suggested earlier, may be important to organizational innovation and adaptation (Staw, 1980). In comparison with longer term employees, new members of the organization may be more likely to question existing practices and suggest new policies and procedures. This benefit of turnover may be lost, however, in organizations that fill vacancies by a rigid policy of promotion from inside. Organizations that fill vacancies by internal promotion may find that turnover results in increased employee morale and motivation due to promotional opportunities, but not enhanced creativity or critical reappraisal of existing practices. When employees can only enter organizations at the lowest levels, new members may be in a poor position to effectively influence organizational practices. By the time such individuals are promoted into positions where influence is possible, they may have become so effectively socialized that little innovation is forthcoming (cg., Wright, 1980).

In evaluating the impact of turnover on organizations, it is critical to consider the internal labor pool of the organization and conditions in the external job market. Organizations with effective manpower planning systems may experience only minimal disruption from turnover. In addition, organizations operating in labor markets characterized by low demand relative to supply may also find that people who leave are easily replaced. In general, the impact of turnover on organizational functioning may be positively related to the level of the organization at which turnover takes place. Turnover among employees in entry level positions is likely to pose fewer problems than turnover in the managerial or executive ranks.

Staw (1980) also suggested another consideration in determining whether turnover might be beneficial to organizations. He argued that different jobs have characteristic tenure-performance curves. For many routine jobs, learning may take place quickly on the job. Individuals entering the organization may become proficient at the task and maintain constant levels of performance across a number of years. For certain stressful and physically demanding jobs, however, the tenure-performance curve may take a different shape. In high stress jobs such as social or police work, new employees may enter the organization with idealistic goals and high levels of motivation. As experience on the job increases, however, employees may become disillusioned and cynical about their ability to have a meaningful impact or the goals they brought to the organization. For such employees, motivation may decrease as a function of tenure in the organization even though their experience has resulted in higher job skills and knowledge. In organizations characterized by stressful or physically demanding work, it may be beneficial to insure a flow of new employees who are energetic and motivated. Turnover among older employees

who have essentially "burned-out" on the job may therefore actually contribute to overall organizational effectiveness. It should be apparent that this argument is predicated on the assumption that older employees who leave are poorer performers, the job market allows easy replacement of leavers, and that new employees are capable and motivated. This may not always be the case, however.

Staw (1980) also viewed turnover as one way organizations can reduce entrenched conflict. Although the conflict resolution literature most often focuses on such strategies as confrontation and accommodation, conflict can sometimes only be resolved by withdrawal from the organization of one of the parties. Conflicts at the executive level of the organization (e.g., between the CEO and President), for example, are frequently resolved in this fashion.

Negative consequences. The negative consequences of turnover for organizations have been discussed by a number of writers (e.g., Mobley, 1980; Price, 1977; Staw, 1980). The most frequently mentioned negative consequences are the costs associated with turnover. Turnover generally results in expenses for recruitment, selection, training, and development. Organizations with high levels of turnover may also have to maintain large personnel departments to handle the termination process for employees who leave and the hiring process for replacements. In addition, lost productivity until the new employee has completely mastered the job must be considered a cost of turnover. A complete discussion of the costs associated with turnover is beyond the scope of this paper. Detailed discussions of costs can be found Gaudet (1960) or Jeswald (1974).

While procedures for identifying and calculating the costs associated with turnover have been developed, factors which may influence the level of

costs have been less often considered. Staw (1980) suggested that a number of situational factors would influence the overall costs of turnover for organizations. First, conditions in the labor market are clearly important. In labor markets where there is an abundant supply of skilled labor, for example, recruiting costs may be low compared to labor markets in which demand exceeds supply. Second, patterns of turnover in the organization may be an important consideration. Patterns of turnover refer to both the level of the organization in which turnover most often takes place and the predictability of turnover. It is likely to be much costlier to replace managers, for example, than entry level employees. Universities who must replace a President may spend one year in the selection process and involve large number of people in the hiring decision. By comparison, replacing a clerical employee in the same university is likely to involve far fewer people and take a much shorter time. Whether or not turnover is predictable or rare also appears to be a factor. When turnover is predictable, routine procedures can be established for replacing employees. In cases where turnover is rare, however, replacing employees may require managers and others to drop projects to concentrate on hiring. Third, it was suggested earlier that organizations with policies of promoting from inside and with sufficient internal manpower pools may find it less difficult to replace leavers than organizations that typically recruit externally. Fourth, organizations undergoing rapid growth and development may also find the costs associated with turnover are relatively small. Rapidly growing organizations are likely to maintain large personnel departments to hire people for newly created positions. The marginal costs associated with hiring replacements for employees who leave may be quite small in this situation. Finally, implicit in several of the things said above is the fact the

costs of turnover are highly dependent upon the characteristics of the people who leave. Holding level of the organization constant, for example, it may be much more difficult to replace key employees with specialized skills than employees engaged in relatively routine tasks. In addition, replacing high performing employees is likely to be much more difficult than replacing low performers without a decrease in overall performance.

In addition to the factors mentioned above, turnover has also been viewed as having a demoralizing effect on current employees and a negative effect on prospective employees. The extent to which turnover may have a demoralizing effect depends on several factors, including characteristics of the person leaving and patterns of turnover. The resignation of a high level executive, for example, may raise more questions than turnover at lower levels of the organization, particularly if that individual is a popular and effective leader. In addition, the resignation of several high level executives at one time may have a greater demoralizing effect than if each had resigned separately over an extended period of time. When turnover is among key personnel or groups of managers, the resignations may be a source of considerable speculation and rumors among remaining employees. Turnover may also have a negative impact on the organization's ability to recruit if dissatisfied employees who leave are vocal about their feelings toward the organization. Particularly in the case of high level executives, negative publicity can result from the resignation of a highly dissatisfied employee.

Turnover in organizations may also disrupt operations and threaten the effectiveness of the overall organization. As with the other consequences of turnover, the possibility of disruption and decreased effectiveness may depend on a number of factors. In tight labor markets, turnover is likely

to be most disruptive for organizations without policies for promoting current employees or where the supply of skilled replacements within the organization is limited. In general, the disruption that results from turnover, particularly among key personnel, will be positively related to the length of time required to find a replacement. Moreover, the timing of a decision to resign may influence the extent to which turnover is disruptive or decreases effectiveness. Turnover during slack work periods may have a limited impact on organizational operations. In contrast, the loss of personnel during peak periods may have very disruptive effects (e.g., the loss of a departmental secretary the week before the University is scheduled to begin their Fall quarter). Although most organizations will ask employees to time their resignations to minimize any resulting disruption (e.g., stay on until a replacement is trained), this is not always possible.

Although they should not necessarily be considered negative consequences of turnover, Price (1977) also identified several structural characteristics that may be influenced by the level of turnover in organizations. Higher levels of formalization and centralization are likely to be found in organizations characterized by high rates of turnover. Price (1977) suggested that high levels of turnover, particularly among managerial personnel, may result in more formalized statements of rules, regulations, procedures, and policies. While organizations with stable membership can rely on informal understandings about appropriate procedures, for example, organizations with high turnover must formalize statements of policy and procedures to aid in the transition of large numbers of new employees. High levels of turnover may also result in more centralized decision making. Centralization of decision making is one way organizations may attempt to minimize the disruption caused by turn-

over and insure that important decisions are made by those with relevant experience and knowledge. Centralization of decision making also increases the importance of certain key personnel in the organization. When it is the key personnel who leave, however, centralization of decision making may actually increase the disruption caused by turnover. Finally, Price (1977) suggested that high levels of turnover may decrease integration or the development of social relationships in the work place. As turnover increases, the development of close and continuing social relationships at work becomes more difficult. This may serve to decrease the general level of social involvement of employees in the organization.

Consequences of Employee Absenteeism

Absenteeism has often been studied as a secondary variable by researchers who were primarily interested in investigating turnover. The early literature on absenteeism, which often viewed absence as a less severe but conceptually similar form of withdrawal behavior to turnover, commonly assumed that turnover and absenteeism share common antecedents. It has not been until recently that researchers have viewed absenteeism as a unique behavior deserving of separate research and theory building (Steers & Rhodes, 1978). Since reviews of the turnover and absenteeism literature have shown that the two behaviors share only a few common antecedents (Porter & Steers, 1973), it is also likely that absenteeism will have consequences that are unique from those associated with turnover. This is also evident from a consideration of the nature of absenteeism and turnover. While turnover most often represents a irrevocable break between the individual and organization, absenteeism is a temporary form of withdrawal that does not usually threaten the employment relationship.

Turnover is most often viewed as motivated by either dissatisfaction with the current job or attraction to another job, while absenteeism may often occur for reasons that have little to do with the job (e.g., illness).

The purpose of this section is to identify a number of potential consequences of absenteeism for individuals, work groups, and organizations. While some overlap will be evident between the consequences of turnover and absenteeism, particularly at the group and organizational levels of analysis, absenteeism has a number of unique consequences of research interest. Unfortunately, research on the consequences of absenteeism is limited and thus there is very little literature to draw upon in this discussion. The discussion that follows will be somewhat speculative as a result.

Individuals

As was true of the consequences of turnover, at the individual level of analysis absenteeism has consequences for both the individual being absent and co-workers of the absentee. Moreover, these consequences can be considered both positive and negative from the perspective of the absentee or his or her work colleagues. The discussion in this section will be organized to reflect these differences. The relationships to be discussed in this section are presented in Exhibit 5.

Insert Exhibit 5 About here

Absentee - positive consequences. Perhaps the most obvious consequence of absenteeism for the individual is the ability to recover from illness. Because absence occurs for reasons other than illness, however, it also has other consequences that may be more interesting from a research perspective.

Absence from the organization, for example, is one way employees have to reduce stress or boredom associated with the job. The fact that periodic absences from stressful jobs are often sanctioned by company policy (e.g., paid sick leave) or work group norms suggests that absenteeism may be a commonly accepted form of coping with the job. Absenteeism allows the employee to reduce job-related stress and thus to maintain higher levels of motivation than might otherwise be possible. Individuals may return from an absence with renewed energy and motivation, although this will depend upon the nature of the job and individual.

Absence is also a way in which employees cope with non-work demands. Numerous day-to-day tasks can only be accomplished between the hours of eight and five on weekdays (e.g., transacting business at a government office). We often neglect the fact that management employees have the discretion to take time away from work to perform these tasks without notice or penalty. For many rank and file employees, however, these non-work demands can only be met by taking time off the job in the form of a absence. The importance of absenteeism in coping with non-work demands is likely to differ among employees. Female employees with children in the home, for example, may be subject to greater pressures than other employees. It is important to recognize that absenteeism may be a response to either work-related or non-work pressures and that the consequences of absenteeism for the individual will differ depending upon the factors which motivated the absence.

Absentee - negative consequences. Depending upon the absence policies of the organization, absenteeism may result in a loss of earning for the employee. Many organizations have a paid sick leave policy, however, that only penalize absences beyond some specified number. In addition to loss of earnings,

absences may also negatively influence the employee's performance evaluation by his or her supervisor. Frequent absences most often result in negative performance evaluations by supervisors. The extent to which this occurs, however, may be influenced by the importance of the job performed by the absent employee and the timing of the absence. Absences by employees on key jobs or during peak periods are likely to be most visible to supervisors. In addition, supervisors may make judgments about the legitimacy of an absence that can effect subsequent employee evaluations.

Absent employees may also be resented by co-workers when absence causes the workload of others to increase. Resentment of co-workers toward the absent employee may be greatest when the reasons for the absence are not considered legitimate, tasks are highly interdependent, or when the absence occurs during a period of heavy work demand. When the work of an employee cannot easily be performed by others during an absence (e.g., the work of professional or managerial employees), work is likely to accumulate while the employee is absent. The employee returning from an absence may therefore be faced with the difficult task of catching-up on work that has accumulated in addition to meeting current job demands.

While less tangible than the other consequences discussed above, absenteeism may also have implications for the employee's self-perceptions or job attitudes (cf., Johns & Nicholson, in press). Employees who are absent may develop causal attributions about the reasons for the absence. When external justification for an absence (e.g., illness) is not readily apparent, employees may come to believe the absence was caused by something about themselves or the job. An employee who spontaneously decides not to come to work, for example, may justify the decision by viewing the job as stressful or dissatisfying.

Alternatively, the employee may come to believe that he or she is particularly illness-prone. We currently know very little about the cognitive consequences of absence for the individual absentee. How individuals justify absence from work and the resulting implications of such justifications for attitudes and beliefs, however, represents an interesting area of inquiry.

Individual co-workers - positive consequences. For individual co-workers of the absent employee, absenteeism incidents may represent an opportunity to increase variety on the job or to develop job-related skills and abilities. Absenteeism may create work demands that require transferring employees temporarily to different jobs. This would increase variety at work and provide opportunities for employees to learn many different tasks. Some organizations create positions that have as their major responsibility replacing absent employees. The job of utilityman on the automobile assembly line, for example, is often found to be more satisfying than regular assembly jobs since these employees perform many different tasks in replacing absent employees. When replacements for absent employees are not readily available, absenteeism may result in opportunities for overtime work and thus increased earnings. In addition, employees who carry an extra workload because a co-workers is absent may become highly visible to supervisors, particularly when absences occur during peak work periods. This high visibility may result in higher performance evaluations since supervisors are likely to reward employees who make contributions at crucial times.

Individual co-workers - negative consequences. While the absence of a co-worker may create opportunities for other employees, absenteeism may increase the workload and thus the burden shared by other employees. The increase in workload may be viewed by many as a negative consequence of absen-

teeism rather than an opportunity. The extent to which absenteeism increases the workload of co-workers will depend upon the availability of replacements for the absent employee, nature of the tasks performed, timing of the absence, and pressures for production. The greatest increase in workload may occur, for example, when replacements are not available, tasks are interdependent, and the absence occurs during a period in which there are heavy pressures for production. In this situation, it is likely that resentment will be generated toward the absent employee, particularly when the reason for absence is not viewed as legitimate. Absenteeism may therefore have the potential to threaten interpersonal relationships among employees.

Work Groups

As suggested in the discussion above, absenteeism may have important implications for employees in the organization other than the person who is absent. While these implications can be discussed at the individual level of analysis, it is also important to consider the consequences of absenteeism for work group functioning. In this section several consequences of absenteeism for work groups will be identified. The relationships to be discussed are summarized in Exhibit 6.

Insert Exhibit 6 About Here

Positive consequences. There may be at least two positive consequences for work groups associated with absenteeism of group members. First, the absent employee may return to work in the group with increased motivation and interest in the job. As suggested earlier, absenteeism is one way employees have to reduce boredom and stress associated with the job. Since continued

work under stressful conditions may negatively influence employee motivation, time away from the job may allow employees to recover from the impacts of stress and return to work with renewed motivation. Increased motivation on the part of employees returning from an absence may facilitate the work of the group, particularly when tasks are highly interdependent. Second, absenteeism may contribute to the overall level of cohesiveness in the work group. Work groups may develop norms about absence that legitimate periodic time away from the job by group members. Groups may develop informal understandings about covering for the absent employee to insure that the work of the group still gets completed. A system of mutual support in which group members cover for each other in the event of an absence may be most likely to develop when tasks are highly interdependent. The mutual support that results from group norms about absenteeism may increase the felt obligation of members to the group and thus contribute to overall group cohesiveness.

Negative consequences. When tasks are highly interdependent, absenteeism is likely to increase the workload of group members and may threaten overall group effectiveness. Group members may simply have to work harder when a co-worker is absent. Although in some situations this may be tolerated or even encouraged by the group, when absenteeism by a member becomes excessive it may be a source of intragroup conflict. Absences which are excessive or not viewed as legitimate may violate the norms of the group and result in group sanctions against the offending member. This may involve either the refusal of group members to cover for the absent member or overt hostility being directed toward the person. Although little is currently known about group norms governing absence behavior (cf., Johns & Nicholson, in press), it is likely that groups will react negatively toward members who are frequently

absent or who always seem to be absent at critical times. The conflict generated as a result of absenteeism may only be resolved by a change in behavior of the group member who violates the norms or his or her removal from the group.

Organizations

At the organizational level of analysis, absenteeism may have several consequences that influence overall effectiveness. Several such consequences will be identified in this section. The discussion is summarized in Exhibit 7.

Insert Exhibit 7 About Here

Positive consequences. Although absenteeism has most often been viewed as having negative consequences for organizations, it is also possible that a certain level of absenteeism has benefits as well. Perhaps the most obvious benefit is that sick employees do not come to work. Overly strict absenteeism policies or incentives for attendance may encourage employees who are truly ill to report to work. Sick employees are unlikely to perform their jobs very effectively and they may spread illness among their co-workers. In addition, a certain level of absenteeism may also contribute to the development of a skilled internal manpower pool. If organizations have a policy of transferring employees among different jobs to replace absentees, this will result in greater training and development of job skills among employees. Some organizations maintain crews of employees solely for the purpose of covering the jobs of absent employees. This crew may become a pool of talent that organizations can draw upon when turnover creates vacancies in regular positions. Absenteeism therefore provides organizations with the opportunity to train employees to perform a number of different tasks.

Negative consequences. The costs associated with absenteeism are the most salient and tangible negative consequences at the organizational level of analysis. Jeswald (1974) identified a number of costs associated with absenteeism in organizations and thus they will not be discussed in depth here. It is important to recognize, however, that organizations may often pay wages and fringe benefits for absent workers even though they are not making a productive contribution. The extent of such costs will depend upon absence policies in the organization (e.g., costs may be greatest for organizations with paid sick leave policies). Organizations must also include administrative expenses required to keep attendance records as a cost of absenteeism. In addition, organizations that hire extra employees to replace those who are absent also have higher payroll costs attributable to absenteeism. Organizations that must hire 110 employees to insure that 100 employees are available for work on any given day, for example, pay a heavy price for absenteeism. Problems may even increase when all employees show up for work since jobs may not be available for everyone.

The costs associated with absenteeism are likely to negatively influence organizational effectiveness. High levels of absenteeism will reduce the overall productivity of employees. Moreover, organizations may have to build slack into production schedules to compensate for anticipated absences. Even when replacements are available for absent employees, effectiveness may be decreased because temporary employees may not have the job skills or knowledge of the absent employees they replace. This may result in lower productivity and quality control problems. The extent to which absenteeism negatively influences the effectiveness of the organization may depend upon several factors, including the predictability of absences, technological inter-

dependence of tasks, and capacity utilization of facilities. Decreased effectiveness resulting from absenteeism may be most likely when absences are among key employees in strategic production positions, absences are difficult to predict, and there is little slack in the system.

Summary

A number of potential consequences of commitment, turnover, and absenteeism have been discussed in this paper. While it would be impossible to summarize this discussion of specific consequences in a limited space, several general conclusions can be drawn. First, it is important to recognize that employee commitment, turnover, and absenteeism have both positive and negative consequences. The previous literature on these topics has most often stressed the positive consequences of commitment and negative implications of turnover and absenteeism. Perhaps this is attributable to the fact that certain outcomes (e.g., costs of turnover) are more tangible and easily studied than others. The discussion in this paper should make clear, however, that a more balanced approach is necessary in evaluating the consequences of these behaviors. Although some of the consequences discussed in this paper are less tangible and more difficult to study (e.g., demoralization of employees due to turnover), these consequences are important to consider in our research nonetheless.

Second, whether or not commitment, turnover, and absenteeism have positive or negative consequences may be influenced by a number of situational factors. The relationships discussed in this paper are far from simple or direct. A number of moderating factors were identified that may influence the way we approach the consequences of behavior. The question is not

whether commitment, turnover, and absenteeism have positive or negative consequences. Rather, what is important to determine is under what conditions the consequences of these behaviors will be most positive or negative. The administrative costs associated with turnover, for example, may be minimal in organizations undergoing rapid growth and development. In stable organizations, however, these same costs may be relatively large. Moreover, in rapidly growing organizations turnover may have a negative, if any, impact on the morale of employees. In stable organizations, however, turnover may create opportunities for promotion and thus increase the morale of employees. Failure to deal with the complexities of relationships between various consequences and commitment, turnover, and absenteeism may result in misunderstanding and organizational practices that have unintended consequences (e.g., attendance incentive programs that encourage sick employees to report for work).

Third, the consequences of commitment, turnover, and absenteeism must be considered at multiple levels of analysis. The approach taken in this paper was to consider consequences separately at the individual, work group, and organizational levels of analysis. Moreover, a distinction was made at the individual level of analysis between those who engage in a behavior (e.g., absence or turnover) and others who may observe and be effected by the behavior. This is a departure from previous literature that has most often focused on one level of analysis in considering the consequences of behavior. However, greater progress is likely to be made in our research when problems are studied at multiple rather than single levels of analysis (Roberts, Hulin & Rousseau, 1978).

Finally, it should be apparent that consideration of the consequences of behavior is an important area of study but one that has to date received little attention. Relative to the antecedents of commitment, turnover, and absenteeism, the consequences of these behaviors have been virtually ignored. Although there are exceptions to this sweeping statement, the point is that researchers have in the past been far more interested in factors leading up to behavior than in consequences that follow from behavior. The imbalance in our research is ironic since our interest in these behaviors is primarily because they are thought to have important consequences. Our willingness to systematically study the presumed consequences of turnover, absenteeism, and, to a lesser extent, commitment has been limited. Recognizing that these behaviors have important consequences raises a number of interesting research questions for the future. The intent of this paper was not to develop comprehensive models of the consequences of these behaviors. Rather, the goal was to identify relationships and moderating conditions that may become the subject of future research. The discussion in this paper should be considered tentative given the limited research support for many of the relationships considered. Speculation on the consequences of commitment, turnover, and absenteeism, however, will hopefully encourage research in this area.

REFERENCES

- Angle, H., & Perry, J. An empirical assessment of organizational commitment and organizational effectiveness. Administrative Science Quarterly, 1981, 26, 1-14.
- Cartwright, D. The nature of group cohesiveness. In D. Cartwright & A. Zander (eds.), Group Dynamics (3rd ed.). New York: Harper & Row, 1968.
- Dalton, D., Krackhardt, D., & Porter, L. Functional turnover: An empirical investigation. Journal of Applied Psychology, in press.
- Dalton, D., & Tudor, W. Turnover turned over: An expanded and positive perspective. Academy of Management Review, 1979, 4, 225-235.
- Gaudet, F. Labor turnover: Calculation and cost. New York: American Management Association, 1960.
- Hackman, J., & Morris, C. Group tasks, group interaction process, and group performance effectiveness: A review and proposed integration. In L. Berkowitz (ed.) Advances in Experimental Social Psychology (Vol. 8). New York: Academic Press, 1975.
- Hall, D. Careers in organizations. Santa Monica: Goodyear, 1976.
- Janis, I. Victims of groupthink. Boston: Houghton Mifflin, 1972.
- Jeswald, T. A. The cost of absenteeism and turnover in a large organization. In W. C. Hammer and F. L. Schmidt (eds.), Contemporary problems in personnel. Chicago: St. Clair Press, 1974, 352-357.
- Johns, G., & Nicholson, N. The meaning of absence: New strategies for theory and research. In B. Staw and L. Cummings (eds.) Research in organizational behavior. Greenwich: Jai Press, in press.
- Meister, D. Behavioral foundations of systems development. New York: Wiley, 1976.
- Mobley, W. Some unanswered questions in turnover and withdrawal research. Paper presented at the 40th annual meeting of the Academy of Management, Detroit, August 1980.
- Mobley, W. H., Griffeth, R. W., Hand, H. H. & Meglino, B. M. Review and conceptual analysis of the employee turnover process. Psychological Bulletin, 1979, 86, 493-522.
- Mowday, R. Viewing turnover from the perspective of those who remain: The influence of attitudes on attributions of the causes of turnover. Journal of Applied Psychology, 1981, 66, 120-123.
- Mowday, R. T., Porter, L. W., & Dubin, R. Unit performance, situational factors, and employee attitudes in spatially separated work units. Organizational Behavior and Human Performance, 1974, 12, 231-248.

- Mowday, R. T., Steers, R. M., & Porter, L. W. The measurement of organizational commitment. Journal of Vocational Behavior, 1979, 14, 224-247.
- Muchinsky, P. M., & Tuttle, M. L. Employee turnover: An empirical and methodological assessment. Journal of Vocational Behavior, 1979, 14, 43-77.
- Porter, L. W., & Steers, R. M. Organizational, work, and personal factors in employee turnover and absenteeism. Psychological Bulletin, 1973, 80, 151-176.
- Price, J. L. The study of turnover. Ames: Iowa State University Press, 1977.
- Roberts, K., Hulin, C., & Rousseau, D. Developing an interdisciplinary science of organizations. San Francisco: Jossey-Bass, 1978.
- Ruch, L. O., & Holmes, T. H. Scaling life change: Comparison of direct and indirect methods. Journal of Psychosomatic Research, 1971, 15.
- Staw, B. The consequence of turnover. Journal of Occupational Psychology, 1980, 1, 253-273.
- Steers, R. M. Organizational effectiveness: A behavioral view. Santa Monica: Goodyear, 1977.
- Steers, R. M., & Mowday, R. T. Employee turnover and postdecision accommodation processes. In L. Cummings and B. Staw (eds.). Research in Organizational Behavior (Vol. 3). Greenwich: Jai Press, 1981.
- Steers, R. M. & Rhodes, S. R. Major influences on employee attendance: A process model. Journal of Applied Psychology, 1978, 63, 391-407.
- Steiner, I. Group processes and productivity. New York: Academic Press, 1972.
- Wright, J. On a clear day you can see General Motors. New York: Avon Books, 1980.
- Ziller, R. Toward a theory of open and closed groups. Psychological Bulletin, 1965, 64, 164-182.

Exhibit 1.

Consequences of Organizational Commitment

Possible Consequences

Level of Analysis	Positive	Negative	Potential Moderating Variables
1. Individual	- Feelings of belonging and attachment (a) - Security (a) - Goals and direction (a) - Positive self-image (a) - Organization rewards (b) - Attractiveness to other potential employers (d)	- Reduced mobility and career advancement (b) - Reduced self-development and growth (b) - Family strains/tension (a,c) - Stress (a,c)	a) Non-work commitments b) Company policies on promotion and rewards c) Job demands d) Visibility of position
2. Work Group	- Membership stability (e) - Group effectiveness (d) - Cohesiveness (a,b)	- Groupthink (c) - Lower creativity and adaptation (c) - Intragroup conflict (d)	a) Task interdependence b) Distribution of commitment in group c) Contacts with non-group members d) Group-organization goal congruence e) organization transfer and promotion policies
3. Organization	- Increased effectiveness due to: - individual effort - reduced turnover - reduced absenteeism - reduced tardiness - Attractiveness to non-organization members	- Decreased effectiveness due to: - reduced turnover - reduced absenteeism - Lower innovation and adaptation	(see text)

Note. The bracketed letters following each consequence refer to a potential moderator variable thought to be most closely associated with that consequence.

Exhibit 2.

Consequences of Turnover for Work Groups

Possible Consequences

Level of Analysis	Potential Moderating Variables	Positive	Negative
Work Group	a) Task interdependence b) Group cohesiveness c) Characteristics of leaver d) Size of group e) Predictability of turnover f) Difficulty of replacement g) Characteristics of replacement	- Increased effectiveness (c,g) - New ideas and creativity (a,c,g) - New performance strategies (a,c,g) - New skills and abilities (c,g) - Reevaluation of group norms (b,c,g) - Increased cohesiveness (c,g) - Decreased conflict (c)	- Disruption of work (a,c,e,f,g) - Disruption of group processes (b,c,d,g) - Decreased performance (a,c,e,f,g) - Greater role specification (d,e) - Structured relationships and communication channels (d,e) - Efforts to socialize new member (b,g) - Increased conflict (g)

Note. The bracketed letters following each consequence refer to a potential moderator variable thought to be most closely associated with that consequence.

Exhibit 3.

Consequence of Turnover for Individuals

Level of Analysis	Possible Consequences		Potential Moderating Variables
	Positive	Negative	
1. Individual - Leavers	- Increased earnings (b,d) - Career advancement (b,d) - Improved individual-job match (f) - Increased challenge (f) - Self-development (f) - Non-work benefits (e.g., geographic location)(f) - Increased family ties (c,f) - New social relationships (e) - Enhanced commitment to new job and organization (f)	- Loss of seniority (a) - Loss of non-vested benefits (a) - Unreimbursed moving costs (b,f) - Disruption of family (c,f) - Transition stress (c,f) - Loss of friendships (e) - Decreased family ties (c,f)	a) Tenure b) Labor market c) Family status d) Job skills/abilities e) Social involvement in work f) Characteristics of old vs. new job
2. Individual - Stayers	- Opportunities for promotion (h,i) - More positive job attitudes (a,d,g) - Increased performance (c,e) - Stimulation at work (b,i) - Initiate search that results in better job (a,f,g)	- Increased workload (c,e,f,i) - Decreased performance (c,e,f,i) - Stress and uncertainty (f,i) - Less positive job attitudes (a,d) - Loss of friendships (b)	a) Beliefs about why others leave b) Social relationship to leavers c) Task interdependence d) Status of leaver e) Performance of leaver f) Job market conditions g) Career orientation of stayer h) Level in organization of leaver i) Organization promotion policies

Note. The bracketed letters following each consequence refer to a potential moderator variable thought to be most closely associated with that consequence.

Exhibit 4.

Consequences of Turnover for Organizations

Level of Analysis	Possible Consequences		Potential Moderating Variables
	Positive	Negative	
Organization	- Innovation and adaptation (c,e) - Increased employee morale and mobility (c,e) - Increased motivation (a,c) - Increased effectiveness (a,d,e,f,g) - Reduction in entrenched conflict (g)	- Costs of turnover (a,b,c,d,e,g) - selection and recruitment - training and development - administrative staff - Demoralization of employees (b,g) - Negative public relations (g) - Operational disruption (b,c,d,g) - Decreased effectiveness (a,b,g) - Structural changes - formalization (b) - centralization (b) - Decreased employee social involvement at work (b)	a) Labor market conditions b) Patterns of turnover c) Organization promotion policies d) Internal manpower pool e) Growth of organization f) Job stress-role performance curve g) Characteristics of leavers

Note. The bracketed letters following each consequence refer to a potential moderator variable thought to be most closely associated with that consequence.

Exhibit 5.

Consequences of Absenteeism for Individuals

Level of Analysis	Possible Consequences		Potential Moderating Variables
	Positive	Negative	
1. Individual - absentees	- Reduced stress and boredom (a,b,c) - Renewed motivation toward the job (c) - Ability to take care of non-work responsibilities	- Loss of earnings (a) - Lowered performance evaluation (b,d,e) - Resentment of co-workers (b,c,d) - Work accumulates while absent (b,d) - Altered job attitudes or self-perceptions (e)	a) Absence policies of organization b) Nature of task c) Employee norms about absence d) Timing of absence e) Perceived reason for absence
2. Individual - Co-workers	- Increased job variety (a,b) - Skill development and training (a,b) - Opportunities for overtime (b,c,d) - Visibility to supervisor (a,b,c,d)	- Increased workload (a,b,c,d) - Resentment toward absent co-worker (a,b,c,d)	a) Nature of task b) Availability of replacements c) Timing of absence d) Production pressures

Note. The bracketed letters following each consequence refer to a potential moderator variable thought to be most closely associated with that consequence.

Exhibit 6.

Consequences of Absenteeism for Work Groups

Level of Analysis	Possible Consequences		Potential Moderating Variables
	Positive	Negative	
Work group	- Increased motivation from absent member (b) - Mutual support and greater cohesiveness (a,b,d)	- Increased workload (b,d) - Decreased group effectiveness (b,d) - Intragroup conflict (e.g., sanctions directed toward absent member) (a,b,c,d)	a) Group norms about absenteeism b) Task interdependence and characteristics c) Group cohesiveness d) Availability of temporary replacements

Note. The bracketed letters following each consequence refer to a potential moderator variable thought to be most closely associated with that consequence.

Exhibit 7.

Consequences of Absenteeism for Organizations

Level of Analysis	Possible Consequences		Potential Moderating Variables
	Positive	Negative	
Organization	- Increased effectiveness (a,b,c,d) - Training and development of workforce (a,b,c)	- Costs of absenteeism (a,b,c) - wages - fringe benefits - administrative staff - increased personnel - Decreased overall effectiveness (a,b,c,d)	a) Patterns of absence and predictability b) Technological interdependence of tasks c) Capacity utilization d) Absence policies

Note. The bracketed letters following each consequence refer to a potential moderator variable thought to be most closely associated with that consequence.

P4-5/A1
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P4-5/A3
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452:KD:716:enj
78u452-883
24 June 1981

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P4-5/A5
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452:KD:716:enj
78u452-883
25 June 1981

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P4-5/A7

452:KD:716:enj
78u452-883
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P4-5/A9
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78u452-883
24 June 1981

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P4-5/All

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78u452-883

30 May 1981

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P4-5/A13
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78u452-883
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P4-5/A14

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78u452-883
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P4-5/A16
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P4-5/A18

452:KD:716:lab
78u452-883
30 May 1981

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P4-5/A20

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P4-5/A23
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452:KD:716:enj
78u452-883
24 June 1981

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P4-5/A24
Sequential by Agency

452:KD:716:enj
780452-883
24 June 1981

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P4-5/A25
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452:KD:716:enj
78u452-883
24 June 1981

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P4-5/A27
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78u452-883
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P4-5/A29
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452:KD:716:lab
78u452-883
30 May 1981

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P4-5/B2
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452:KD:716:enj
78u452-883
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P4-5/B3

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P4-5/B4

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P4-5/B5

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