Predictors of Job Satisfaction and Organizational Commitment in Human Service Organizations

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A study of 319 human service workers in 22 human service organizations was used to analyze simultaneously the effects on both satisfaction and commitment of multiple predictors from the three categories of job characteristics, organization characteristics, and worker characteristics. The study shows that job satisfaction and organizational commitment are each affected by a unique hierarchy of predictors. Results indicate that two job characteristics, skill variety and role ambiguity, are the best predictors of satisfaction, while two organization characteristics, leadership and the organization's age, are the best predictors of commitment. One worker characteristic, education, was found to be a significant predictor of commitment, while no worker characteristics predicted job satisfaction.

Over the last two decades researchers have identified a number of variables that appear to contribute to either job satisfaction or organizational commitment. These variables can be divided roughly into three groups: (1) variables that describe characteristics of the job tasks performed by the workers; (2) variables that describe characteristics of the organizations in which the tasks are performed; and (3) variables that describe characteristics of the workers who perform the tasks.

With some exceptions (Herman and Hulin, 1972; Buchanan, 1974; Herman, Dunham, and Hulin, 1975; Steers, 1977; Rousseau, 1978; Stevens, Beyer, and Trice, 1978; Morris and Sherman, 1981; Staw and Ross, 1985), research efforts have tended to examine variables from only one (or occasionally two) of the three categories of predictors at a time, making simultaneous comparisons of the unique effects of variables from all categories impossible. Also with some exceptions (Porter et al., 1974; Marsh and Mannari, 1977; O'Reilly and Caldwell, 1981; Bateman and Strasser, 1984; Williams and Hazer, 1986; Lee and Mowday, 1987), individual studies have tended to investigate either the predictors of satisfaction or those of commitment, making comparisons impossible between the relative effects on satisfaction and commitment of each predictor studied. Finally, less research has been conducted with human service organizations, which have been reported to have particularly low levels of job satisfaction relative to other types of organizations (Schoderbek, Schoderbek, and Plambeck, 1979; Solomon, 1986).

Several studies have reported a relationship between job satisfaction and organizational commitment but there continues to be disagreement regarding any causal ordering. Bateman and Strasser (1984) found commitment to be a precursor of satisfaction; Marsh and Mannari (1977) and Williams and Hazer (1986) found satisfaction to be a precursor of commitment; and Porter et al. (1974) simply found the two to be correlated. More recently, Curry et al. (1986) found no evidence of a causal relationship in either direction.

There has been little or no attempt to challenge that satisfaction and commitment covary or that they are separate and distinct variables, but there has developed little consensus to date about the differences between the predictors of each. The purpose of the present study is to identify the differences

between the predictors of satisfaction and the predictors of commitment within the same work environment, using job, organizational, and worker characteristics as three categories of predictors. The identification of these differences is necessary for an understanding of the development of worker attitudes. The study examined these characteristics and worker attitudes in a sample of 319 workers from 47 workgroups located in 22 different human service organizations. The design went beyond previous studies by assessing the simultaneous effects of multiple variables from all three categories of predictors on both the job satisfaction and the organizational commitment of human service workers.

WORKER ATTITUDES

There has been considerable disagreement among theorists concerning the mechanisms by which workers form attitudes about their jobs and the organizations in which they work. The early needs-satisfaction models, which posit relatively straightforward relationships between job characteristics that satisfy needs and positive worker attitudes, have been eroded from at least two sides (Herzberg, 1966). Subsequent models have identified as a source of variation in attitudes either the characteristics of the individual worker or the characteristics of the broader organizational or situational context. The result has been that researchers studying worker attitudes have tended more recently to refocus their attention away from job characteristics to concentrate either on the individual worker or on the broader organizational context.

The individual worker is considered a source of variation in attitudes in several ways. First, moderating variables describing the individual worker, such as alienation and growth-need strength, have been introduced (Hulin and Blood, 1968; Hackman and Oldham, 1976). These variables are hypothesized to moderate the strength and/or direction of the effect of a job characteristic on the attitude of the worker.

Second, it has been argued that a worker's subjective values play a more important role than do his or her needs in the relationship between job characteristics and attitudes (Locke, 1976). From this perspective, subjective values are considered to be more heterogeneous across workers than are needs, and relationships among job characteristics and worker attitudes are therefore seen as less stable than they would be in needs-satisfaction models.

Third, the dispositional model describes workers as predisposed to certain attitudes (Staw and Ross, 1985; Staw, Bell, and Clausen, 1986). This view is at odds with the needs-satisfaction and values-satisfaction models because it depicts worker attitudes as imported into the organization by the individual worker. Therefore, the dispositional perspective is that attitudes persist independent of the extent to which either needs or values are satisfied by job characteristics and independent of other situational characteristics.

In contrast to the models emphasizing the importance of either job characteristics or the individual worker, the broader organizational or situational context of the work is also identified as a major source of variation in the attitudes of the workers. For example, the attitudes of workers have been

found to be more related to the structural context within which the work occurs than to the individual characteristics of the worker (Herman and Hulin, 1972; Herman, Dunham, and Hulin, 1975; O'Reilly and Roberts, 1975). Social information processing theory suggests that worker attitudes are constructed through social interaction with other workers in the workplace rather than determined either by individual worker characteristics or by objective job characteristics (Salancik and Pfeffer, 1978).

Rousseau (1978) emphasized that the context in which work attitudes occur is actually multidimensional, including organizational characteristics, job characteristics, and worker characteristics. Her argument for the importance of all three dimensions is based, in part, on the sociotechnical model of organization (Perrow, 1967; Rousseau, 1977), which depicts the organization as a work system of interrelated components that includes a technology to transform raw material into output and a social structure to link workers to the technology and to each other.

Attitudes of Human Service Workers

Rousseau's (1978) use of the sociotechnical model in understanding the etiology of worker attitudes is especially relevant to the present study of human service workers. Of particular importance is the conceptual separation of job characteristics from technological characteristics. The importance of this distinction is that it separates purely technologically defined activities from those closely related job tasks that are defined in part by social structure. While technological activities are determined primarily by the existing knowledge of the raw material and the processes required to produce the desired end product, job characteristics are determined by both the technology and the structure in which it is implemented. This makes it possible to conceive of two organizations that use the same technology, with workers in one organization experiencing very different job characteristics from those experienced by workers in the other.

If job characteristics are conceptually separated from technological activities, however, there is no justification for assumptions such as that made by O'Reilly, Parlette, and Bloom (1980), who assumed that nurses who perform similar technological activities experience the same job characteristics regardless of the organizational unit in which they perform those activities. As a result of this assumption, they concluded that any perceptual differences of job characteristics that occur among nurses between organizational units must necessarily be a function of differences in the nurses' subjective perceptions of their jobs rather than of any real differences.

Roberts and Glick (1981) agreed with Rousseau (1978) by pointing out the confusion in the job-task-design research that results from investigators assuming that job tasks are invariant across people in particular job categories. It cannot be assumed that workers share similar job characteristics simply because they are engaged in technologically similar activities. Rather, it is both the technical and the social components of the system that determine the characteristics of the jobs employees perform (Rousseau, 1978:525).

Although the traditional view of structure as designed to "fit" the technology suggests that technology plays a major role in shaping structure and defining the job characteristics of workers who implement the technology (Perrow, 1967; Glisson, 1981), Glisson (1978) argued that human service technologies of the type included in the present sample are especially vulnerable to the influences of the organizational context in which they are embedded. He described many human service technologies as being so ill-defined and inde-terminate (primarily because of variable raw materials and lack of knowledge of them) that the technological imperative is substantially weakened. This allows structural character-istics to be implemented without considering technological requirements (Glisson and Martin, 1980; Martin, 1980). Structural characteristics then supplant technological require-ments in determining the nature of worker tasks (Patti, 1985).

Of particular importance is the variation in job characteristics between different human service organizations that imple-ment similar technologies. The notion that job characteristics might impinge upon technological activities (for example, im-properly limit the discretion exercised by a human service worker) provides the theoretical basis for job characteristics determining variation in the attitudes of workers who imple-ment similar human service technologies.

Several studies of either job satisfaction or organizational commitment have been conducted with human service orga-nizations. These include studies that examine predictors of satisfaction (Finch, 1978; Haynes, 1979; Bedeian and Ar-menakis, 1981; Jayaratne and Chess, 1984; McNeely, 1984; Schlenker and Gutek, 1987); of commitment (Steers, 1977; Morris and Sherman, 1981); and of both satisfaction and commitment (Bateman and Strasser, 1984). Because human service organizations are reported to have low levels of satis-faction when compared with other types of organizations, an understanding of the contributing factors within the human services is especially important (Schoderbek, Schoderbek, and Plambeck, 1979; Solomon, 1986). Also, because job sat-isfaction and organizational commitment seem to play key roles in the occurrence of both turnover and burnout in the human services, the prescriptive implications of under-standing the etiology of satisfaction and commitment extend beyond concerns for the well-being of employees to include the quality of services and the well-being of clients who re-ceive those services (Porter et al., 1974; Jayaratne and Chess, 1984).

MODELS OF SATISFACTION AND COMMITMENT

Locke (1976:1300) defined job satisfaction as the "positive emotional state resulting from the appraisal of one's job or job experiences." Mowday, Porter, and Steers (1982:27) defined organizational commitment as a strong belief in the organiza-tion's goals and values, a willingness to exert considerable effort on behalf of the organization, and a strong desire to re-main a member of the organization. Mowday, Porter, and Steers (1982), Williams and Hazer (1986), and others have specifically distinguished commitment from job satisfaction by defining the former as an affective response to beliefs about the organization and the latter as a response to the ex-

perience of specific job tasks. "Hence, commitment emphasizes attachment to the employing organization, including its goals and values, whereas satisfaction emphasizes the specific task environment where an employee performs his or her duties" (Mowday, Porter, and Steers, 1982:28). Although the two variables would be expected to be highly correlated within a given sample, it is at the same time possible to imagine an employee who holds positive beliefs about and is attached to a specific organization and its goals and values but is unhappy with the experience of certain aspects of a specific job within that organization, and vice versa. Viteles (1953) suggested that employee morale may be a combination of both satisfaction and commitment. That is, both an attachment to the organization and a positive reaction to one's specific job within the organization are necessary for high morale.

Recent research efforts indicate that commitment may be multidimensional, having both attitudinal and behavioral components (O'Reilly and Chatman, 1986; McGee and Ford, 1987). Salancik (1977:4) emphasized that commitment is grounded in behavior: "To act is to commit oneself." He described commitment as behavior resulting primarily from perceived constraints on a worker's ability to leave the organization and from choices that bind him or her to the organization. While Salancik (1977) disagreed that commitment is an attachment that results from shared values and goals, he did suggest that workers' beliefs about alternatives for leaving an organization and about the irrevocability of their decisions are important in determining commitment behavior.

In the models developed in this paper, commitment is viewed as based on beliefs concerning the organization and satisfaction as resulting from one's perceptions of current job experiences. Postcognitive models (James and Tetrick, 1986) are used to explain the development of each attitude. The models do not address the debate regarding the extent to which the experience of attitude-relevant characteristics of a job or task is constructed through social interactions (Salancik and Pfeffer, 1978; O'Reilly and Caldwell, 1979; White and Mitchell, 1979; Glick, Jenkins, and Gupta, 1986). Rather, it provides a basis for defining the role played by beliefs about the organization and the role played by job experiences, with the understanding that each can be influenced by social interaction within the workplace.

When commitment is modeled as a function of beliefs about the organization and satisfaction as a function of job experiences, the three dimensions of the context of work described by Rousseau (1978) are differentially important in affecting each attitude. The characteristics of the organization and of the individual worker should be the factors that influence the worker's beliefs about the organization and, hence, the worker's level of commitment; job characteristics should be the major factors that influence job experiences and, hence, the worker's job satisfaction.

Predictors of Job Satisfaction

Of the three categories of predictors of attitudes, the category of variables that characterizes the job tasks performed by the worker has received the most empirical attention in

studies of job satisfaction (Glick, Jenkins, and Gupta, 1986). Role ambiguity (Rizzo, House, and Lirtzman, 1970; Haynes, 1979; Abdel-Halim, 1981; Bedeian and Armenakis, 1981) and skill variety, or complexity (Hackman and Oldham, 1975; Katz, 1978; Dewar and Werbel, 1979; Haynes, 1979; Abdel-Halim, 1981; Gerhart, 1987), are the two variables in this category that emerge as the strongest predictors of satisfaction. This suggests that the less confusion about responsibilities that workers experience in completing work tasks and the more they are allowed to use an assortment of their abilities, the more satisfied they will be with their jobs. Other variables from this category of predictors that are found to affect job satisfaction are role conflict, task identity, and task significance (Rizzo, House, and Lirtzman, 1970; Hackman and Oldham, 1975; Katz, 1978; Haynes, 1979; Bedeian and Armenakis, 1981).

The only variables from the second category of predictors, those that characterize the organization in which the worker performs his or her job tasks, that have received substantial attention in terms of possible effects on job satisfaction are leadership (House, Filley, and Kerr, 1971; Haynes, 1979; Bateman and Strasser, 1984; Gladstein, 1984) and supervision (Brass, 1981; Hatfield and Huseman, 1982; Lopez, 1982; Podsakoff, Todor, and Skov, 1982; Bateman and Organ, 1983). These variables are operationalized in various ways but, together, generally refer to certain characteristics of the people under whose authority the respondent must function in the organization.

The third category of predictors, the characteristics of the worker, has received less attention in the job satisfaction research literature. Although Staw and Ross (1985) and Staw, Bell, and Clausen (1986) have provided evidence that job satisfaction is primarily a function of an individual's disposition, with the exception of age (Dewar and Werbel, 1979, reported older workers to be more satisfied) and sex (McNeely, 1984, reported females to be more intrinsically satisfied), there is little empirical support for the importance of individual worker characteristics in determining job satisfaction.

Predictors of Organizational Commitment

Worker characteristics have played a major role in research aimed at predicting organizational commitment. If it is assumed that the characteristics of the workers are associated with their beliefs about the organization, then these studies support the notion that such beliefs may account for more variation in commitment than do experiences in the job setting. A variety of worker characteristics that describe the worker's personality, personal needs, and values have been reported to be associated with commitment (Hulin and Blood, 1968; Hall and Schneider, 1972; Goodale, 1973; Buchanan, 1974; Dubin, Champoux, and Porter, 1975; Rabinowitz and Hall, 1977; Steers and Spencer, 1977; Kidron, 1978). In a sample of human service workers, Morris and Sherman (1981) reported that older employees, less educated employees, and employees with a greater sense of competence had higher levels of organizational commitment. O'Reilly and Caldwell (1981) reported that workers who perceived fewer

alternative options for employment tended to have greater organizational commitment. Stevens, Beyer, and Trice (1978) found that several worker characteristics predict organizational commitment: The total number of years the worker had been in the organization and the extent of their ego involvement with the job were each positively related to commitment, while the number of years the worker had been in the same position and the more the worker was favorably disposed to change were each negatively associated with commitment. In a large sample of hospital employees, Steers (1977) found a negative effect of education and positive effects for both age and the need for achievement. Overall, for various types of organizations, age and tenure have generally been reported to be positively associated with commitment (Hall, Schneider, and Nygren, 1970; Lee, 1971; Sheldon, 1971; Hrebiniak, 1974), and education has been reported to be negatively related to commitment (Morris and Steers, 1980; Angle and Perry, 1981).

Predictors from the characteristics of the job tasks that are shown to affect commitment include role conflict (a negative relationship reported by Morris and Koch, 1979, and Morris and Sherman, 1981), task identity, the extent to which worker expectations are met by job tasks, the opportunity for optional social interaction in completing tasks (Steers, 1977), the skill level of subordinates (Stevens, Beyer, and Trice, 1978), and job scope (Hall and Schneider, 1972; Buchanan, 1974; Marsh and Mannari, 1977; Steers and Spencer, 1977). There is insufficient evidence, however, to identify the best predictors of commitment in the job-task category.

Less attention has been given to organizational characteristics as predictors of commitment. The extent to which the organization is seen as dependable (Buchanan, 1974; Hrebiniak, 1974; Steers, 1977) and leadership, in the form of initiating structure, consideration, and punishment behavior (Morris and Sherman, 1981; Bateman and Strasser, 1984), however, have emerged as significant predictors of organizational commitment. Morris and Sherman (1981) believed their findings indicated that leadership is an underresearched predictor of organizational commitment.

Hypotheses

Based on the models presented above that describe satisfaction as a function of the experience of performing job tasks and commitment as a function of beliefs about the organization, the following hypotheses are proposed:

Hypothesis 1: The characteristics of the job tasks performed by the workers, particularly role ambiguity and skill variety, will be excellent predictors of job satisfaction but moderate predictors of commitment.

Hypothesis 2: The characteristics of the workers, particularly education and age, will be excellent predictors of commitment but poor predictors of satisfaction.

Hypothesis 3: The characteristics of the organization in which the tasks are performed, particularly organizational age as an indicator of dependability, and leadership, will be excellent predictors of commitment but moderate predictors of satisfaction.

METHOD

The study sample included 319 individuals from 47 work-groups in 22 different human service organizations. A workgroup was defined as a group of workers who provide direct human services to clients under the authority of a common leader to whom the members of the group are responsible directly. The number of workgroups sampled from each organization ranged from one to six, with an average of about two workgroups per organization. The types of services provided by these workgroups included social services to families and children (eight groups), medical social services (seven groups), mental health services (three groups), correctional social services (six groups), services to victims of crime (two groups), recreational services (four groups), services to the physically handicapped (five groups), gerontological services (eight groups), social services to adolescents (two groups), and crisis intervention services (two groups).

Following a letter and phone call to the CEO of each organization, one of the authors met with the CEO to explain the study and to obtain descriptive information about the organization and workgroups. The purpose of the study was explained as an effort to understand worker attitudes, and each CEO was promised a summary of the results. It was explained that no individual responses would be available and that all respondents would remain anonymous. An author then met with available members of each workgroup and distributed packets containing the questionnaires. The subjects were told that a summary report would be provided to the organization but that all respondents would remain anonymous. To insure anonymity, respondents were instructed to seal the packets after they had responded to the questionnaires, which required about 30 minutes to complete. Workgroup members were included in the sample only if completed questionnaires were obtained from a majority of their workgroup. Ninety-one percent of the packets distributed to available workgroup members were returned, resulting in a sample of approximately 60 percent of all members of all workgroups sampled. Twelve of the 331 returned questionnaires could not be used because of incomplete responses or because completed questionnaires were obtained from a minority of the members of a particular workgroup.

Characteristics of workers. The sample was 70 percent female, with a majority holding college degrees and 44 percent having graduate degrees. The most frequently occurring graduate degree was a master's degree in social work. Most of the respondents were between 30 and 50 years of age, with an average of seven years of experience working in the human service area in which they were employed at the time of the study.

Characteristics of the workgroups. The workgroups had, on the average, about 12 members, an annual budget of more than $400,000, and had been in existence about 14 years. The organizations in which they were located had an average age of 76 years, and the types of services provided by the workgroups were divided among walk-in (12 groups), residential (16 groups), and both walk-in and residential services (19 groups).

Questionnaire Data

In addition to characteristics of individuals and groups, information was collected from respondents regarding characteristics of their job tasks, qualities of their workgroup leader, their job satisfaction, and their organizational commitment. Role conflict and role ambiguity were measured with scales developed by Rizzo, House and Lirtzman (1970). Skill variety, task significance, and task identity were measured with scales developed by Hackman and Oldham (1980). Organizational commitment was measured by the scale developed by Porter et al. (1974), and job satisfaction was measured with the scale developed by Hackman and Oldham (1980). Leadership was measured by the scale developed by Levinson (1980), which requires the respondent to characterize a leader on intellect, the ability to maintain positive relationships with others, and behavioral characteristics associated with good leadership. Alpha reliability coefficients for each scale were as follows: leadership (.93), role conflict (.81), role ambiguity (.81), skill variety (.71), task identity (.59), task significance (.66), commitment (.91), and satisfaction (.86).

The mean response to commitment items for this sample was 4.96, placing the sample at the 48.31 percentile for females (54.60 percentile for males), according to norms published by Mowday, Steers, and Porter (1979) and Mowday, Porter, and Steers (1982). The mean response to satisfaction items was very low, 2.86, fully two standard deviations below the norm mean satisfaction levels reported by Hackman and Oldham (1980). Respondents in the sample, then, appear to have had a moderate level of commitment and a very low level of satisfaction.

Of the seventeen predictors of satisfaction and commitment included in the study, two-thirds were objective measures: organization age; workgroup size, budget, and age; type of service; worker's years in the organization, years of experience, age, sex, education, and salary. Measures for the remaining predictors were subjective. The validities of these subjective measures are supported in several ways. First, the content validities are supported by the methods used in developing items (described in the above references) combined with the homogeneity of responses to those items as reflected in the alpha coefficients reported above (Ghiselli, Campbell, and Zedeck, 1981).

Second, the six measures included five measures of job-task characteristics and one measure of leadership. Because the members of a particular workgroup were engaged in similar job tasks and because they shared a common leader, the within-workgroup variances of responses to these six measures should be significantly smaller than the between-workgroup variances of responses. As shown in Table 1, this is confirmed. Between-workgroup variances range from two to as much as six times as great as within-workgroup variances, and all ratios are statistically significant. These data show that individual responses to questions about job tasks and leadership are patterned according to workgroup membership, as would be expected for scales that are valid measures of the job-task and leadership variables.

Table 1

Between-Workgroup and Within-Workgroup Variances for Job Characteristics and Leadership

Variable	Between-workgroup	Within-workgroup	F-ratio
Role conflict	309.19	150.57	2.05*
Role ambiguity	216.84	64.28	3.37*
Skill variety	33.52	11.98	2.80*
Task identity	25.96	13.22	1.96*
Task significance	16.65	8.95	1.86*
Leadership	525.55	87.38	6.01*

*$p < .001$.

Third, the correlations among the subjective measures range from .00 to .45, indicating that there is no consistency of response artifact resulting from the common method of measurement used in assessing these variables. Moreover, the pattern of correlations among the measures lends support to the criterion validities of the measures. Skill variety, for example, is completely unrelated to role conflict (.00) but is highly related to task significance (.41). This indicates that there is no relationship between the extent to which an individual exercises a variety of skills and the amount of role conflict encountered on the job but that those individuals who exercise higher skill variety also experience higher task significance. As another example, ratings of leadership are uncorrelated with skill variety (.01) but are negatively correlated with role ambiguity (−.42), indicating that respondents who

Table 2

Correlation Matrix ($N = 319$)

	1	2	3	4	5	6	7
1. Job satisfaction							
2. Organizational commitment	.64***						
Job-task characteristics							
3. Role conflict	−.29***	−.43***					
4. Role ambiguity	−.68***	−.57***	.41***				
5. Skill variety	.30***	.09	.00	−.03			
6. Task identity	.44***	.29***	−.38***	−.45***	.20***		
7. Task significance	.47***	.33***	−.24***	−.31***	.41***	.29***	
Organizational characteristics							
8. Workgroup size	.08	.05	.07	−.16**	−.12*	−.03	−.06
9. Workgroup budget	.01	.03	−.02	.10	.16**	−.01	.14*·
10. Organization age	.29***	.42***	−.14*	−.23***	−.04	.00	−.11*
11. Workgroup age	.03	−.02	−.15**	.05	.20***	.06	.04
12. Leadership	.38***	.51***	−.32***	−.42***	.01	.17**	.22***
13. Residential services	.17**	.21***	.07	−.29***	−.26***	−.01	.00
14. Residential/walk-in	−.16**	−.12*	.00	.30***	.11*	.00	−.03
Worker characteristics							
15. Years in organization	.04	−.02	.00	.02	.24***	.10	.10
16. Years of experience	.03	−.04	.02	.00	.26***	.09	.12*
17. Age	.25***	.33***	−.03	−.30***	−.16**	.00	.02
18. Sex	−.11*	−.11*	.03	.08	.06	.08	−.04
19. Education	−.07	−.19***	−.08	.28***	.44***	.05	.18***
20. Salary	−.04	−.11*	−.02	.23***	.48***	.03	.16**

*$p < .05$; **$p < .01$; ***$p < .001$.

experience ambiguity about their role within a workgroup rate the leader of the workgroup more negatively.

Finally, patterns of correlations between the subjective scales and the objective measures also provide evidence of criterion validities. For example, education is uncorrelated with role conflict ($-.08$) and leadership ($-.03$) but is highly correlated with skill variety (.44). This indicates that more highly educated respondents assume job tasks requiring the use of a wider variety of skills, but they do not experience any more or less role conflict or rate their leader higher or lower than less educated respondents. While the education of the respondent is related to some job characteristics, as would be expected in this sample the sex of the respondent is unrelated to any of the job characteristics or to ratings of leadership.

RESULTS

Table 2 presents the correlation matrix of the two criteria and 17 predictor variables. At the zero-order level, variables from all three categories of predictors correlate significantly with both satisfaction and commitment. The highest zero-order correlations with satisfaction are reported for role ambiguity ($-.68$), task identity (.44), and task significance (.47). The highest zero-order correlations with commitment are reported for role conflict ($-.43$), role ambiguity ($-.57$), organization age (.42), and leadership (.51).

As shown, satisfaction and commitment are significantly correlated (.64). Because both variables are dependent variables, a canonical analysis was conducted to establish that the predictors as a set are able to explain a significant amount of variation in satisfaction and commitment simultaneously as a criterion set. If the predictors are unable to explain a significant amount of variation in the two criteria as a set, subse-

8	9	10	11	12	13	14	15	16	17	18	19
−.05											
.27***	−.04										
−.08	.19***	−.01									
.01	.00	.18***	−.17**								
.60***	−.11*	.33***	−.38***	.13*							
−.35***	.23***	−.27***	.09	−.16**	−.50***						
−.20***	.29***	−.16**	.13*	−.06	−.22***	.15**					
−.19***	.25***	−.14*	.15**	−.04	−.22***	.15**	.83***				
.37***	.00	.45***	−.17**	.18***	.65***	−.29***	.17**	.18***			
−.09	.10	−.13*	.04	−.03	−.14*	.18***	.02	.08	−.13*		
−.31***	.20***	−.19***	.30***	−.03	−.60***	.30***	.14*	.18***	−.47***	.14*	
−.31***	.37***	−.10	.35***	−.15**	−.56***	.24***	.42***	.42***	−.29***	.10	.63***

quent analyses of each criterion are not permitted. This protects against explaining repeatedly the same variation shared by correlated dependent variables, in this case, once for satisfaction and again for commitment.

Table 3 presents a canonical analysis of the variation explained in both satisfaction and commitment simultaneously as a set. The predictors explain over 67 percent (the canonical correlation squared) of the variation in the combined set of criteria. The slightly larger canonical weight for satisfaction than for commitment indicates that a somewhat stronger relationship exists between the set of predictors and satisfaction than between the set of predictors and commitment. The canonical weights for the predictors indicate that the best predictor of the criterion set is role ambiguity; the more ambiguity, the less the respondent is satisfied and committed. The predictors having the next greatest effect are leadership, organization age, and skill variety; the more highly rated the leaders, the older the organization, and the more variety in the skills applied by workers, the greater the job satisfaction and organizational commitment of the respondent. The strength and significance of the relationship between the predictors and the criteria and the relatively equal canonical coefficients for the criteria indicate that the predictors are able to explain variation in each criterion unrelated to the other and that subsequent general linear model (GLM) analyses are appropriate.

GLM analyses were performed for each criterion variable to

Table 3

Canonical Analysis

Variable	Standardized canonical coefficients
Job satisfaction	.65
Organizational commitment	.45
Characteristics of job tasks	
Role conflict	−.03
Role ambiguity	−.56
Skill variety	.23
Task identity	−.11
Task significance	.19
Characteristics of organization	
Workgroup size	−.08
Workgroup budget	.02
Organization age	.23
Workgroup age	.07
Leadership	.23
Residential services	−.01
Both residential and walk-in	.10
Characteristics of the workers	
Years in the organization	.06
Years of experience	−.15
Age	.13
Sex	−.07
Education	−.09
Salary	.01
Canonical correlation	.82
df	36/598
F-ratio	16.89●

● $p < .0001$.

determine which predictors have the greatest impact on satisfaction and commitment individually. Simultaneous sums of squares and associated F-ratios are reported to assess the unique variation explained in each criterion by each predictor after controlling for all other variables (Pedhazur, 1982; Cohen and Cohen, 1983). This is a conservative approach in that the relationship between each predictor and criterion is assessed only after the variation explained in the criterion by all other predictors has been removed. In this way, only the variation that each predictor explains over and above all other predictors is attributed to each predictor.

In addition, hierarchical sums of squares were calculated for each of the three sets of predictors: job characteristics, organization characteristics, and worker characteristics. Following the strategy outlined by Cohen and Cohen (1983:133–177) for hierarchical analyses of sets, the variation explained by each of the three sets of predictors was assessed according to the hypothesized order of effects of the sets on each criterion.

As shown in Table 4, 62 percent of the variation in satisfaction is explained by the predictors. As anticipated in hypothesis 1, this analysis reveals that the best category of predictors is the characteristics of the job tasks performed by the worker. Role ambiguity has a significant negative effect

Table 4

Partitioning of the Variation in Job Satisfaction

Source	df	Sum of squares	Mean square	F	R
Model	18	14,903.55	827.97	27.56•••	.79
Error	300	9,012.69	30.04		
Total	318	23,916.23			

Variable	b	df	Sum of squares*	F
Characteristics of job tasks		5	13,917.38	92.66•••
Role conflict	.04	1	75.77	2.52
Role ambiguity	−.48	1	3,013.04	103.29•••
Skill variety	.48	1	674.43	22.45•••
Task identity	.28	1	246.86	8.22••
Task significance	.47	1	485.96	16.18•••
Characteristics of organization		7	764.56	3.64••
Workgroup size	−.03	1	11.82	.39
Workgroup budget	.00	1	1.39	.05
Organization age	.02	1	228.36	7.60••
Workgroup age	.03	1	49.11	1.63
Leadership	.07	1	150.36	5.00•
Type of service		2	38.90	.65
Residential/walk-in − walk-in	.80			
Walk-in − residential	.13			
Residential/walk-in − residential	.93			
Characteristics of workers		6	221.21	1.23
Years in the organization	.07	1	10.87	.36
Years of experience	−.13	1	64.33	2.14
Age	.05	1	55.10	1.83
Sex	−1.22	1	84.20	2.80
Education	−.03	1	.23	.01
Salary	−.03	1	3.43	.11

• $p < .05$; •• $p < .01$; ••• $p < .001$.
* Sums of squares for sets of characteristics are hierarchical; for predictors, sums of squares are simultaneous.

and skill variety a significant positive effect on job satisfaction. These are the two variables that have emerged as strong predictors in previous research and are the strongest predictors in the present research. Leadership, which has also emerged as a strong predictor in previous research, plays a significant but smaller role in predicting satisfaction in the present sample. Worker characteristics, however, play no role in predicting satisfaction.

Table 5 shows that, as would be expected from the canonical analysis, the predictors explain slightly less variation in commitment than in satisfaction (56 percent). The characteristics of the organization are the strongest predictors of commitment, with organization age and leadership having the largest impact. This finding supports hypothesis 3 and underscores the earlier conclusion of Morris and Sherman (1981) that leadership is an underresearched predictor of organizational commitment. The effect of organization age may support Steers' (1977) finding that beliefs about organizational dependability significantly predict commitment, since those workers in the older organizations reported greater organizational commitment.

Two additional variables from the characteristics of the organization are significant predictors of commitment, the size of the workgroup and the type of service provided by the work-

Table 5

Partitioning of the Variation in Organizational Commitment

Source	df	Sum of squares	Mean square	F	R
Model	18	46,783.10	2,599.06	21.93•••	.75
Error	300	35,546.92	118.49		
Total	318	82,330.02			

Variable	b	df	Sum of Squares*	F
Characteristics of job tasks		5	12,012.00	20.28•••
Role conflict	−.20	1	1,401.22	11.83•••
Role ambiguity	−.47	1	2,990.81	25.24•••
Skill variety	.41	1	483.75	4.08•
Task identity	.08	1	18.61	.16
Task significance	.47	1	477.84	4.03•
Characteristics of organization		7	32,710.40	39.44•••
Workgroup size	−.16	1	457.78	3.86•
Workgroup budget	.00	1	62.60	.53
Organization age	.09	1	3,019.08	25.48•••
Workgroup age	.05	1	110.82	.94
Leadership	.36	1	4,409.26	37.21•••
Type of service		2	801.33	3.38•
Residential/walk-in − walk-in	3.94•			
Residential − walk-in	1.02			
Residential/walk-in − residential	2.91			
Characteristics of workers		6	2,060.71	2.90•
Years in the organization	−.16	1	58.93	.50
Years of experience	−.34	1	410.01	3.46
Age	.13	1	379.46	3.20
Sex	−1.37	1	107.18	.90
Education	−1.91	1	790.00	6.67••
Salary	.10	1	55.71	.47

• $p < .05$; •• $p < .01$; ••• $p < .001$.
* Sums of squares for sets of characteristics are hierarchical; for predictors, sums of squares are simultaneous.

group. The respondents in larger workgroups rated them-
selves as less committed, and respondents in workgroups
that provided both residential and walk-in services were sig-
nificantly more committed than those providing more limited
services. This finding is linked to the kinds of problems work-
group members address in programs that provide both walk-
in and residential services.

Job characteristics, primarily role ambiguity and role conflict,
play a significant but smaller role in predicting commitment.
This replicates some earlier research and could indicate either
that experience has some effect on commitment, although
less than the effect of beliefs, or that beliefs about the orga-
nization are affected to some extent by experiences on the
job. It is important to note in this regard that role conflict sig-
nificantly predicts organizational commitment but does not
predict job satisfaction.

Worker characteristics explain a smaller but significant
amount of variation in commitment. This is primarily the result
of the effect of the worker's education, the more educated
worker reporting less commitment.

The findings thus confirm, in part, all three hypotheses. The
characteristics of the job tasks are the best predictors of sat-
isfaction, while the characteristics of the organization are the
best predictors of commitment. As anticipated, role ambiguity
and skill variety are the best predictors of satisfaction, but job
characteristics are also significant, although relatively less
powerful predictors of commitment. The second hypothesis
anticipated that the characteristics of the worker would be
excellent predictors of commitment and poor predictors of
satisfaction. This is supported, although only education from
that category explains a significant amount of unique variation
in commitment. The third hypothesis anticipated that the
characteristics of the organization would be excellent pre-
dictors of commitment. The results support this hypothesis,
however, the findings also provide support for previous re-
search showing a relationship between organizational charac-
teristics (particularly leadership) and satisfaction.

DISCUSSION

No previous studies have examined simultaneously the ability
of multiple variables from all three categories (worker, job,
and organizational characteristics) to predict both satisfaction
and commitment. Moreover, only a few studies have exam-
ined any predictors of both satisfaction and commitment in a
single sample (Porter et al., 1974; O'Reilly and Caldwell,
1981; Bateman and Strasser, 1984; Williams and Hazer,
1986; Lee and Mowday, 1987). These findings are unique,
therefore, in identifying the similarities and differences that
exist between the hierarchies of predictors of the two criteria.
The hierarchy of effects points clearly to the dominance of job
characteristics in predicting satisfaction and the dominance of
organizational characteristics in predicting commitment. Re-
sults also indicate that worker characteristics significantly
predict commitment but play no role in predicting satisfaction.
These findings support the importance of job experiences in
the development of job satisfaction and the importance of

beliefs about the organization in the development of organizational commitment.

A worker's beliefs and experiences are necessarily filtered through the same subjective lens, tying satisfaction and commitment together. This results in some degree of correlation, but it does not suggest that workers must have either high-high or low-low values on the two variables. In fact, the sample in the present study had a very low level of satisfaction along with a moderate level of commitment. Within the sample, however, those workers with the highest levels of satisfaction relative to the overall very low mean tended to be those with the higher commitment levels relative to the overall moderate mean. The relationship between satisfaction and commitment possibly results from some direct linkage between the two variables, although recent efforts by Curry et al. (1986) have failed to support a causal relationship in either direction. The relationship could also result from the two variables sharing common predictors, although the hierarchy of effects of those predictors is different for each attitude.

Although satisfaction and commitment are correlated, the findings, that the predictors explain a significant amount of variation in the two attitudes as a set and that a different hierarchy of predictors exists for each attitude individually, provide evidence that the two attitudes are distinct and separate constructs. This study therefore responds to the suggestions of Mowday, Porter, and Steers (1982) that more complex predictive models be examined, especially those that examine the antecedents of commitment. While Mowday and his colleagues also suggested that researchers move away from correlational studies, this attempt goes beyond previous correlational studies in providing evidence that satisfaction and commitment are correlated but conceptually separate attitudes that are related differently to dimensions of the same work context.

This study also responds to suggestions made by Roberts and Glick (1981) that work tasks not be considered invariant within similar job categories and that higher-order multivariate approaches be used to analyze data. The findings of this study allow us to make conclusions about the role of job characteristics in affecting the attitudes of workers performing technologically similar tasks, while controlling for and assessing the unique effects of other variables correlated with job characteristics, which describe both the worker and the organization.

Findings concerning the unique variation explained in each criterion by individual predictors, with the others being simultaneously partialed, are among the most valuable findings obtained from multivariate analyses of cross-sectional data. Although causality cannot be inferred from nonexperimental designs, the relationships that remain after statistically controlling the effects of the multiple predictors included here shed light on the differences between the factors associated with satisfaction and with commitment across similar job positions. These differences provide evidence that the observed relationships are not merely those that result from the consistency artifacts that plague this type of study (Roberts and Glick, 1981). Because satisfaction and commitment are highly

correlated, consistency artifacts would contribute to finding that the same hierarchy of factors are related to both. In contrast, the actual finding that a different hierarchy of factors (some of which rely on the perception of respondents and some of which do not) is related to each attitude suggests that consistency of responses is not responsible for the relationships observed between predictors and criteria (Glick, Jenkins, and Gupta, 1986).

Moreover, the fact that the differences between the hierarchies complement the proposed theoretical distinction between satisfaction and commitment further supports the validity of the observed relationships. Therefore, although the study design places restrictions on inferences and signals caution in interpretations, the value of these findings is that the two criteria are differentially related to predictors from the three categories in a pattern that supports certain conceptual and theoretical differences between satisfaction and commitment.

The present findings support the traditional research emphasis on job characteristics as determinants of job satisfaction, and to a lesser extent, the more recent examinations of organizational determinants such as leadership (Bateman and Strasser, 1984). These results indicate that job satisfaction depends largely on the opportunity for the human service worker to use a variety of skills in performing job tasks and on the clarity of the requirements and responsibilities of the job. They support Schlenker and Gutek's (1987) recent research showing that role loss (a reduction in skill variety) among social workers has a greater impact on job satisfaction than do the characteristics of the social worker. The results, therefore, do not provide justification for the recent interest in worker characteristics as determinants of job satisfaction.

These findings provide less support for the previous research concerning organizational commitment than for that concerning satisfaction. The commitment literature has been somewhat varied, but more emphasis has been placed generally on worker and job characteristics than on examinations of organizational characteristics. In contrast, in the present study organizational characteristics were found to be the primary predictors of commitment, and the findings support the few studies that examine relationships with variables such as organizational dependability and leadership (Steers, 1977; Morris and Sherman, 1981). The secondary role played by job characteristics replicates some previous research, especially concerning the importance of role conflict to commitment. The tertiary effect of worker characteristics in these results also replicates earlier findings, but the effect is not as strong as would be expected, given the general level of emphasis placed on worker characteristics in the commitment literature. The significant effect of the worker's education supports O'Reilly and Caldwell's (1981) notion that the worker can create commitment by rationalizing the available options for leaving the organization. These results suggest that more highly educated workers hold beliefs regarding work alternatives that temper levels of commitment to the organization. However, the findings do not support O'Reilly and Caldwell's

(1981) extension of the same explanation to understanding job satisfaction.

The types of human services sampled in the present study are beset by low morale, burnout, high turnover, and poor quality. Because these services depend on intense worker-client interactions for the resolution of problems for which available intervention technologies and resources are frequently inadequate, the attitudes of workers are important to the success of the services. If human service workers' attitudes are a function of organization and job-task characteristics, as these findings indicate, then the success of human service systems could depend as much on the organization and administration of those services as on the skill and knowledge of the line workers. This means, for example, that a social worker's successful intervention in a child abuse case or successful treatment of an adolescent drug user could be as dependent on the design and administration of the organization in which the social worker is employed as on the social worker's knowledge of relevant intervention and treatment approaches.

Until now, concern for the success of the types of human services included in the present sample has taken one of two forms. First, an exclusively clinical focus has examined worker-client interactions and the extent to which clients benefit from those interactions. This approach has ignored the human service organization in which those interactions take place and the effects of organization and job-task characteristics on those interactions. Second, an exclusively organizational focus has examined the effects of human service organization characteristics and processes on such "bottom-line" variables as resource acquisition, client head-counts, and costs. This approach to understanding success has ignored worker-client interactions and the extent to which clients actually benefit from services. As Patti (1985) has argued, however, the most important but ignored, bottom-line criterion for measuring the success of a human service organization is the extent to which clients benefit from its services. This study points to the need for a combined organizational/clinical focus that examines the relationships among organizational and job-task characteristics, worker behaviors and attitudes, and the benefit of services to clients. Outcomes of such research could guide the design and administration of human service organizations that decrease rates of burnout and turnover and increase morale, service quality, and the organizations' success in benefiting clients.

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