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Causal Analysis of Disengagement Among Paid and Volunteer City Employees

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CAUSAL ANALYSIS OF DISENGAGEMENT
AMONG PAID AND VOLUNTEER CITY EMPLOYEES

by

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Approved by:

Dr. Donald D. Davis (Director)

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CAUSAL ANALYSIS OF DISENGAGEMENT

AMONG PAID AND VOLUNTEER CITY EMPLOYEES

Margaret Carson Zimmerman
Old Dominion University, 1989
Director: Dr. Donald D. Davis

This multivariate test of the full Mobley, Griffeth, Hand, and Meglino (1979) model of turnover used 184 volunteer and 202 paid workers employed as firefighters, library workers, and rescue squad workers. It addressed the issue of whether the motives and behaviors of volunteers could be accommodated by the same model that normally would be applied to paid workers. Little research exists on the characteristics of volunteer workers, and their worth and manageability are commonly denigrated. The study of volunteers in similar jobs to paid workers might reveal much about the disengagement process since the need to maintain a source of income will not mask their affective responses. Volunteers represent cost-reduction potential for the cities using them wisely. The Mobley et al. (1979) model included cognitive, affective, and behavioral processes as determinants of turnover. Path analysis, tested with the Specht (1975) procedure for goodness-of-fit, determined that the Mobley model fit the volunteer data as well as it did the paid worker data but with only a low goodness-of-fit index ($Q = .20$ for both samples). An augmented model, which included *Organizational Commitment* and *Intent to Alter Involvement*, was tested for the entire sample, the paid workers, and the volunteer worker sample, but its fit was unsatisfactory. Finally, a trimmed model which included just six outcome variables and 24 paths fit the paid worker data at $Q = .77$ and the volunteer data at $Q = .80$. No general conclusions about the validity of the trimmed model can be made prior to cross validation. The disengagement patterns of volunteers could be understood by the same models as were applied to paid workers although the weighting of variables varied

somewhat as a function of pay. Fluctuations in the effects of job characteristics were tied to occupational category, demonstrating that pooling information from various occupations in research of this sort leads to the instability of relationships found across studies. Greater precision in specifying variables and paths in models is called for but must be based on occupation-specific empirical data.

Introduction

This study addresses a topic of concern to managers in all organizations—employee turnover and emotional disengagement. Recruiting, selecting, and training replacement personnel are expensive. Even when workers do not leave, emotional detachment from work and the organization can have destructive effects. Thus, understanding the determinants of both behavioral and emotional disengagement is of major importance. Based on a review of the theoretical models and research which attempt to account for disengagement, a model first described by Mobley, Griffeth, Hand, and Meglino (1979), was chosen and tested. Paid and volunteer employees in a city administration were used as subjects in a path analytic study of the complex and interactive causes of disengagement.

A unique feature of this research is the inclusion of volunteer city employees as a part of the sample. Comparison of volunteers' attachment and disengagement patterns with those of paid workers may reveal causal factors which are hidden by economic concerns. Pay and economic security are powerful incentives, so powerful that they may mask the effects of other values and on the worker's desire to stay or leave; however, the research literature has not addressed the disengagement behavior of volunteer workers. Thus, one aim of this research was to explore the generalizability of Mobley's model to volunteer workers.

After testing the Mobley et al. (1979) model for goodness-of-fit with both paid and volunteer workers, an altered form was analyzed which included organizational commitment as a precursor to intent to quit. Several authors, including Mobley, have suggested that this relationship might enhance models of disengagement.

Disengagement Behaviors

The linkage between the worker and the organization is characterized by several forms of commitment and disengagement. Mowday and his associates divided these into two basic dimensions having to do with membership status and quality of membership (Mowday, Porter, and Steers, 1982). Behaviors associated with membership status include joining, staying, absenteeism, and turnover. Quality of membership includes more psychological features such as loyalty, attachment, involvement, and commitment.

The general term used in this paper to refer to weakening of such linkages is “disengagement.” Other terms frequently found in the literature include withdrawal and turnover, but problems with these concepts make disengagement a better choice. Withdrawal carries with it the idea of active escape or avoidance of some aversive condition such as dissatisfaction with the job. This connotation is misleading and unnecessarily limiting since the availability of other, more attractive, or higher priority activities can motivate turnover as well (Mobley et al., 1979). Turnover is the term used by Mobley and many other authors; but, as Mobley points out, turnover can be thwarted by contractual commitments or by beliefs about the nonwork consequences of quitting (Mobley et al., 1979). As this study will show, workers’ beliefs about the organization’s need for their unique services can also prevent voluntary separation. In each of these cases, turnover will be prevented but alternate types of unlinking can take its place. Unlinking responses can be behavioral, as in sabotage, absence, or work slowdown; they can be cognitive, as in increased thinking about quitting and intending to search for alternative activities; and, finally, they can be affective, as in reduction of organizational commitment or reduction of involvement in the goals and activities of the organization. This emotional disengagement, while not so obvious and dramatic as the behavioral alternatives, can lead to loss of creativity, slipshod work, and infection

of the work group with similar apathy. Thus, the broader term of disengagement, rather than just turnover or withdrawal, seems more appropriate.

Early Disengagement Research

The research on disengagement and its covariates is voluminous with more than one thousand studies having been reported (Mowday et al., 1982). Bivariate studies have predominated in this body of work, and until recently there has been no unifying theoretical model guiding the selection of variables. The piecemeal nature of this line of research makes complete understanding of the relationships involved in such complex outcomes as turnover, disengagement and alienation next to impossible.

Another problem in this type of research stems from the poor correspondence between attitudes and outcomes when attitudes are used as predictors and actions are the outcomes. Ajzen and Fishbein (1977, p. 891) attribute the weakness of these relationships to an improper pairing of predictor and outcome elements. In differentiating attitudes toward the action (such as intent to leave) from attitudes toward a target (such as job satisfaction), they state that the former is the more appropriate predictor of the single-act criterion. Improper pairing of predictor and outcome is a recurring problem with bivariate studies. Fortunately, the multivariate, process-oriented approaches to disengagement modeling discussed below have corrected this problem of pairing predictors and outcomes.

Multivariate Process Models of Disengagement

Multivariate process models use this attitude-toward-the-action approach to assess intention to do something. Studies have found the highest correspondences to be between such model elements as intent to quit and actual quitting (Bannister & Griffeth, 1986; Hom, Griffeth, & Sellar, 1984; Mobley, 1982). Steel and Ovalle (1984) conducted a meta-analysis based on a large number of such studies and found that intentions were more predictive of attrition than overall job satisfaction, satisfaction with work itself, or organizational commitment. These process models include a

variety of target-directed attitudes in their use of work values, job involvement and organizational commitment. Instead of trying to relate broad target elements to a specific “single-act” criterion such as quitting, the designers of these models have attempted to link attitude and behavior in a logical chain of immediate and specific precursors and outcomes. This approach achieves Ajzen and Fishbein’s objective of high commonality of target and behavioral elements in both the predictor and criterion variables because of their step by step connections.

Subjective perceptions as determinants of turnover. March and Simon (1958) proposed the earliest formal multivariate model of turnover which presented two variables, the perceived desirability of leaving the organization and the perceived ease of movement from the organization, as the determinants of turnover. In this model, satisfaction with the job and the perceived possibility of intraorganizational transfer determine the subjective assessment of the desirability of leaving. The immediate precursor of perceived ease of movement is the perception of extraorganizational alternatives. Mobley (1982) credits this with being one of the most influential integrative models of employee turnover and its strong influence can be seen in his and his colleagues’ work (Mobley, 1977, 1982; Mobley et al., 1979).

The structural approach to turnover modeling. Having reviewed the turnover research in sociology and psychology, Price (1977) developed a model using the most reliable bivariate relationships he was able to find. He presented five structural variables as determinants of satisfaction which, as it decreases, interacts with opportunity to produce turnover. This is a structural model; that is, it is a model that delineates the factors proposed as influential, but does not emphasize the dynamic interplay among variables that result when cognition, beliefs, expectancies, and subjective probability estimates that modify the effects of the more static demographic and organizational variables. Price’s model, shown in Figure 1 (Price, 1977, p. 84), is useful in that it supports the more tenuous explanatory connections generated by

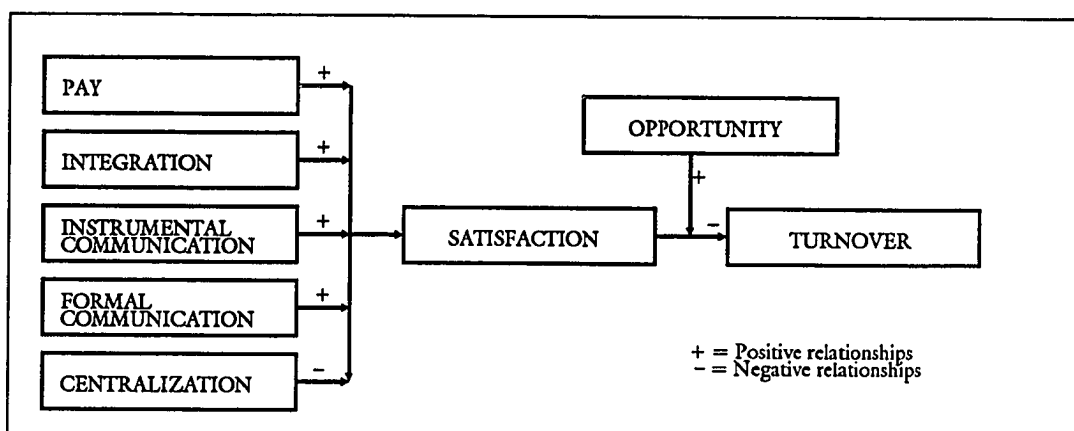


Figure 1. Structural model of determinants and intervening variables leading to turnover. (Price, 1977, p. 84.)

psychological theorists. It does not include cognitive and motivational variables, however, and so is not as useful by itself in understanding individual differences in disengagement.

Mobley's initial cognitive process model. Mobley produced four variants of a cognitive process model of turnover (Mobley, 1977; Mobley, Horner, & Hollingsworth, 1978; Mobley et al., 1979, and Mobley, 1982). The third version (Mobley et al., 1979) is the most complete model and was tested in the present paper. The initial cognitive process model (Mobley, 1977), and its simplified version (Mobley et al., 1978) are the ones investigated by most researchers, however, and so they and the research they generated will be discussed first.

The initial model focuses on the mediating connections between satisfaction and turnover. This model (Figure 2) stresses the cognitive activities engaged in by a worker. These cognitive activities include comparative evaluation of the present job, of the expected utility of job search, of the alternatives, as well as present job satisfaction. Later cognitions include thoughts about quitting, intentions to search for another job and intentions to quit. As Steers (1984) remarked, this model and its variants assume that employees make conscious decisions to leave. Thus, it is necessary

for these models to detail the cognitive steps leading to termination. Although the process might be conscious, it would be naive to assume that it is fully rational. Tversky and Kahneman maintain (for example, Tversky & Kahneman, 1974), that human beings cannot be counted on to attend to all the pertinent information available when making decisions. People also do not make rationally-based estimates of the probabilities of different outcomes, although they act on the basis of such biased percep-

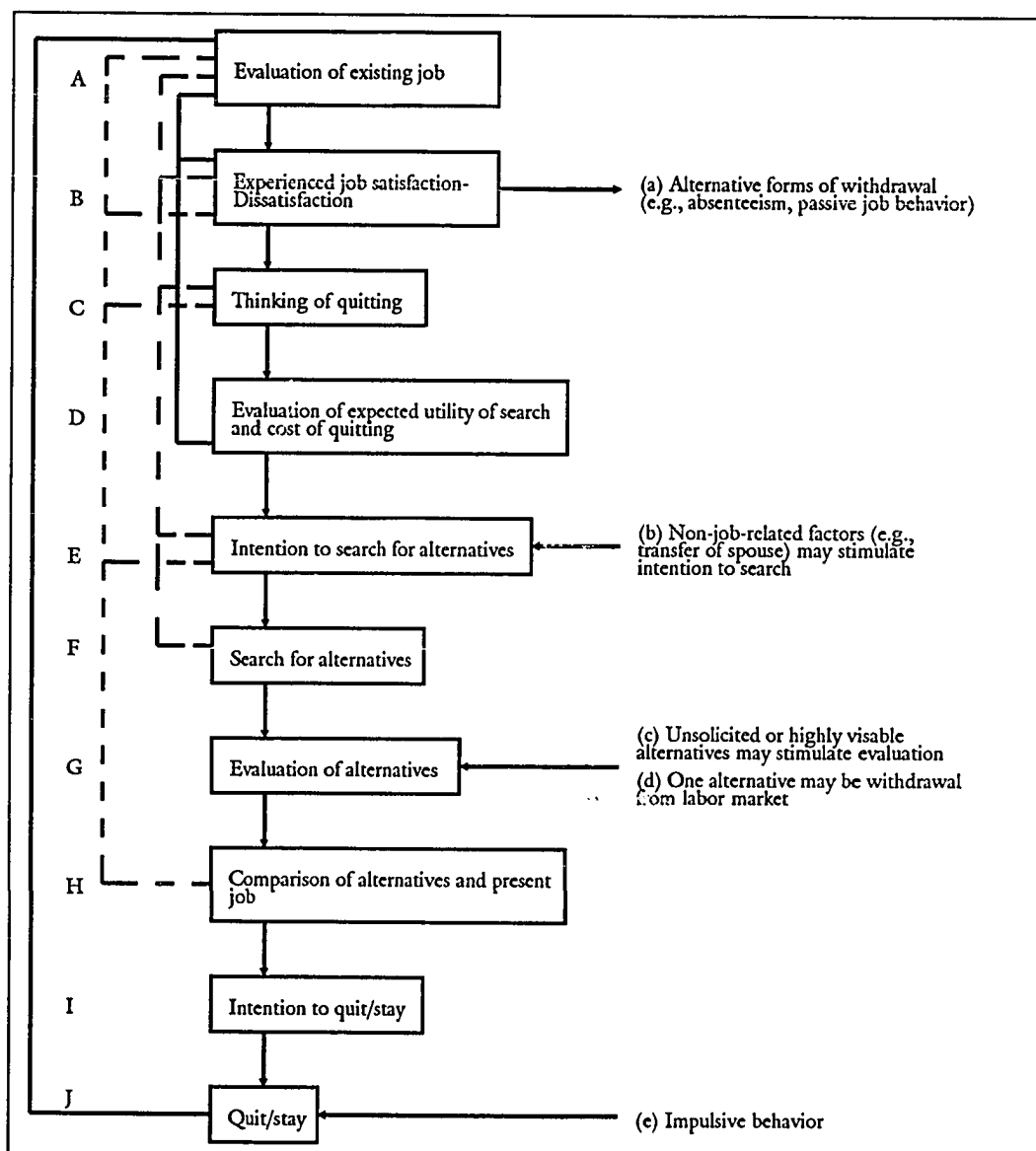


Figure 2. The initial cognitive process model of the determinants of an individual's decision to quit or stay with an organization. (Mobley, 1977, p. 238.)

tions. For this reason, knowledge of perceptions may provide better predictors of behavior than knowledge of actual, objective facts.

Using a sample of 203 hospital employees and a one year follow-up, Mobley, Horner, and Hollingsworth (1978) tested a simplified version of this model in which job satisfaction was hypothesized to have an indirect effect on turnover, mediated by *Thoughts of Quitting*, *Intent to Search*, and *Intent to Quit*. *Intent to Quit* was the only variable expected to have a direct effect on actual quitting. They found general support for the model as did several independent studies of it (e.g., Coverdale & Terborg, 1980; Griffeth, 1979, 1981 as discussed in Hom et al., 1984, and in Mobley, 1982).

Mobley et al. (1978) found some puzzling results with their age/tenure composite variable which produced direct effects on both *Intent to Search* and *Intent to Quit*. This, and problems with the statistical technique, led Bannister and Griffeth (1986) to conduct a reanalysis of the 1978 data with path analysis. They found that the only immediate precursor to quitting was *Intent to Quit*. *Job Satisfaction* played a larger role than Mobley et al. (1978) found, and *Age* and *Tenure* had unpredicted diverse and significant effects on the outcome variables. Bannister and Griffeth (1986) note that while *Intent to Quit* is obviously the best predictor of quitting, if managers wait until intent has been made public, they will not be able to intervene in time to prevent turnover. They suggest that attention should be directed to earlier determinants in an attempt to develop more useful indicators. They also note that the Mobley (1977) model is a nonrecursive one which cannot be fully tested using path analysis which assumes one-way relationships. The simplified version (Mobley et al., 1978) is a recursive model which can be handled by such techniques, but it does not allow conceptually for feedback loops changing the pattern of causation over time.

Hom, Griffeth, and Sellaro (1984) tested the full 1977 Mobley model (shown in Figure 2) using the operational definitions given by Mobley et al. (1979) for their central constructs (*Job Satisfaction*, *Attraction—Expected Utility: Present Job*, and *Attrac-*

tion—Expected Utility: Alternatives). Hierarchical regression analysis confirmed most of the relationships postulated in Mobley's 1977 model. Generally, the antecedents of most criteria predicted them significantly and accurately, with the immediate precursors accounting for the greatest amount of variance in the criterion. One exception was the prediction of *Turnover* by its immediate antecedent, *Intent to Quit*. While its predictive power was significant, it did not exceed that of other, more remote predictors. *Search Intent* predicted *Intent to Quit* itself better than its direct precursor, *Comparison of Alternatives*. In addition, Hom et al. (1984) found a need for a path between *Expected Utility of Search* and *Quitting and Turnover*. They believe that this shows that employees carefully weigh the cost of quitting and decide if the alternative job can offset investments in the present job before they decide to resign. After that cost evaluation is made, the decision to quit follows and leads to *Intent to Search* and to *Search* behavior. This interpretation fits the suggestions made by other researchers (Baysinger and Mobley, 1982; Hom, 1980; Parker and Dyer, 1976) that employees switch jobs only if the alternative is sufficiently attractive to warrant the cost of changing jobs.

In addition to the test of the original Mobley model, Hom et al. (1984) tested a modified model which included perceived social pressure from significant others, including referents other than family members. Hom et al. include the variable twice: as a subjective norm to search for alternative employment and as a subjective norm to quit the present work role, noting that these expectations may be more immediate and powerful determinants of turnover than the usual demographic variables. The addition of the subjective norm to search accounted for significantly more variance in search behavior than Mobley's antecedents alone, but adding the subjective norm to quit to the antecedents of quitting intention failed to increase explained variance in that outcome. The authors note that constructs that exist in the 1979 Mobley et al. model conceptually include these two subjective norms. These constructs, centrality of

nonwork values and roles and nonwork consequences of quitting, were not present in the Mobley 1977 model.

Mobley and his associates continued to test and develop different versions of their model. Although others validated the original model (e.g., Miller, Katerberg, and Hulin, 1979), particularly the relationship between *Intent to Quit* and *turnover*, Mobley (1982) drew attention to the fact that the internal relationships associated with the probability of finding acceptable alternatives proved to be unclear. Studies related it, as predicted, to thinking of quitting (Mobley et al., 1978; Coverdale and Terborg, 1980 as cited in Hom et al., 1984) but failed to relate it to search or intentions despite predictions (Miller et al., 1979; Coverdale & Terborg, 1980 as cited in Hom et al., 1984; Mobley et al., 1978; Mowday et al., 1982). A need to extend the range of the variables assessed was also apparent, so the final cognitive process model was developed.

Mobley's revised process model. Mobley and his colleagues (Mobley, Griffeth, Hand, and Meglino, 1979) revised the original model (see Figure 3). Like its predecessors, this newer version stressed cognitions as mediators between organizational variables, individual variables, labor market features and decisions to quit.

The revised model specifies job dissatisfaction, the expected utility of alternative roles both within and external to the organization, and nonwork values and contingencies as the primary determinants of intentions to search and to quit and later turnover (Mobley, 1982). Job-related perceptions and individual values shape satisfaction. Satisfaction and the two expected-utility elements may be correlated but all three independently affect intent to search and intent to quit.

Mobley (1982) warns that overemphasizing any one of the four general classes of determinants (economic, organizational, individual and nonwork) could lead to incomplete understanding of turnover. It is for this reason that this research tests the entire model.

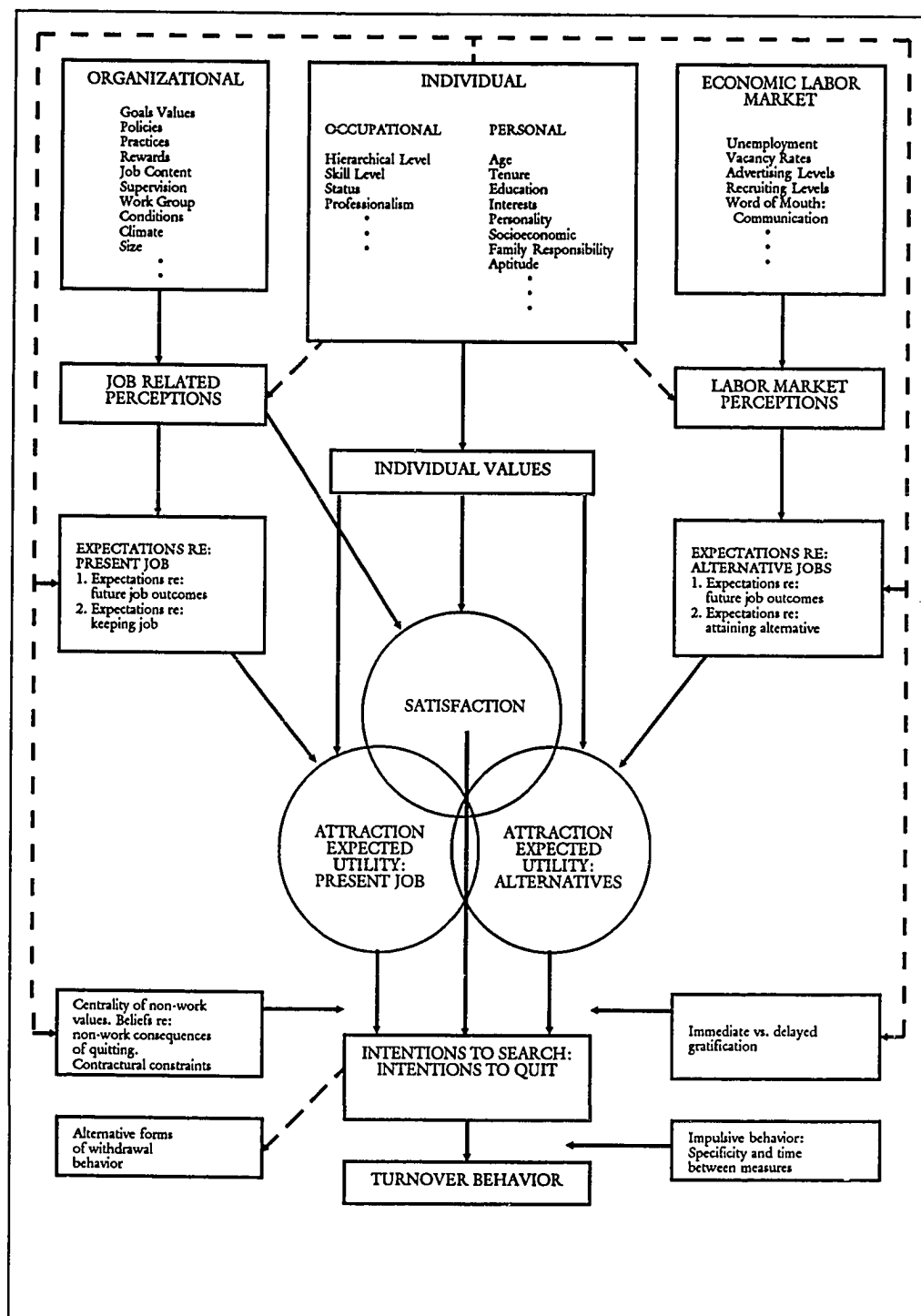


Figure 3. The revised model of employee turnover. (Mobley, Griffeth, Hand, & Meglino, 1979, p. 517.)

Appendix A shows intercorrelations of the variables cited in recent multivariate studies of turnover, organizational commitment, or job satisfaction published since the major reviews discussed earlier, highlighting correlations with the major outcomes noted in the key models. The findings that were reported in these and the earlier studies that pertain to the variables specified by Mobley et al. (1979) are summarized below.

Demographic variables. Mobley included a number of demographic variables and personal factors in his model, specifically, age, tenure, sex, family responsibilities, education, personality, other personal considerations and information taken from weighted application blanks (Mobley et al., 1979). Younger age tends to be associated with higher turnover. Mobley et al. (1979) report correlations of $-.22$ and $-.25$ between *Age* and *Turnover* in the studies they reviewed. The relationships between demographic variables and disengagement behavior are considerably weakened in multivariate studies by the addition of mediating variables; Hom and Hulin (1981) note that the correlation between *Age* and *Turnover* drops from $-.41$ to $-.14$ when effect of *Behavioral Intent to Reenlist* is removed. Still, demographic variables have enough effect that it would be wise to include certain of them in any causal analysis. For instance, Rhodes' (1983) analysis of multivariate studies showed that the direct effect of age on turnover was negligible but that significant indirect effects could be found, particularly through work role and sex-role related family responsibilities. Accordingly, my study included age and family responsibilities in its analysis.

Gender is less important than the effect that gender has on the assignment of family responsibilities and their interference with work role. For instance, all reported correlations between gender and turnover are small and inconsistent in direction (Arnold & Feldman, 1982; $r = .12$; Gould & Werbel, 1983, $r = -.23$; Spencer & Steers, 1980, whole $r = -.14$, partial $r = -.12$). Hom and Hulin (1981), working with 1169 National Guardsmen, failed to find a significant relationship. On the other hand,

small to moderate, significant, negative correlations have been found between number of dependents and turnover (Arnold & Feldman, 1982; Hom & Hulin, 1981; Rhodes, 1983). These findings about the role of dependents strongly suggest that the assignment of financial and caretaking duties for dependents is the key causal factor affecting turnover directly and indirectly rather than gender per se.

Price (1977) found a strong association between *Tenure* and *Turnover*, although several multivariate studies have not supported this finding. MacKay, Boddy, Brack, Diack, and Jones (1971), for instance, found that controlling for the influence of *Age* eliminated the *Tenure* and *Turnover* relationship. Both Hom and Hulin (1981) and Michaels and Spector (1982) reported a nonsignificant relationship between *Tenure* and *Turnover*. *Tenure's* relationship with other variables is also mixed or weak. In addition, Motowidlo (1983) found that *Age* and *Tenure* correlated at a moderately high level ($r = .71$). It is possible that *Tenure* and *Age* may function as proxies for each other. On the other hand, if tenure represents an investment, potential loss of the institutionalized rewards earned over time may restrict freedom of choice. In such a case, both tenure and age are causal factors, and *Tenure* should probably enter into a causal analysis somewhere towards the middle as a mediator, where the appeal of alternative jobs contrasts with estimates about the future potential of this job. In any case, despite mixed findings, there is enough evidence to support the measurement of tenure in addition to age in any causal analysis of disengagement behavior.

Spencer and Steers (1980) reported nonsignificant simple and partial correlations between education and turnover. Gould and Werbel (1983) found that for municipal employees, the direct relationship of education with turnover is nonsignificant; however, they found a small but significant negative correlation between education and organizational commitment. This could have an indirect effect on disengagement.

Organizational commitment. Mobley and others note that commitment is more closely related to the intent to quit and actual quitting than is job satisfaction or any other variable. This has not been a universal finding (e.g., Michaels & Spector, 1982), but it is borne out by most of the recent multivariate research (for instance, Mobley, 1982; Motowidlo, 1983, except for satisfaction with pay; Mowday, Steers, and Porter, 1979). The problem is that, as Morrow (1983) notes, there are over 25 commitment-related constructs in the literature. O'Reilly and Chatman (1986) remark on the lack of consensus on the definition and proper measurement of commitment. The same basic construct yields a confusing array of descriptive terms.

Mowday, Porter, and Steers (1982) identify at least three aspects of commitment: a strong belief in and acceptance of the organization's goals and values; a willingness to exert considerable effort for the organization; and a strong desire to maintain membership in the organization. This definition is as close to being the benchmark as any in the literature, but it by no means is the only definition.

Other researchers agree with Mowday et al. (1982) about outcomes but they emphasize process more. Ajzen and Fishbein (1977), for instance, differentiate two attitude constructs, attitude toward a target and attitude toward an act. Commitment involves the organization as "target," quitting as "act," and intent as "attitude." O'Reilly and Chatman (1986) point out that in all definitions of commitment, psychological attachment to the organization is a theme which continues to reappear, with the core mechanism for attachment being the process of identification with the attitudes, values, or goals of the organization. Organizational commitment, in their view, reflects internalization of the organization's values. The O'Reilly and Chatman (1986) approach fits the two sets of attitudes postulated by Ajzen and Fishbein, target and action attitudes, while encouraging the differentiation of attachment and its outcome—intent to stay or quit. This distinction between antecedents and consequences is not made by most measures of commitment, including the most widely

used one, the Organizational Commitment Questionnaire (Mowday, Steers & Porter, 1979). This is a particularly difficult problem for the researcher who attempts to evaluate the effect of organizational commitment on turnover and intent to quit.

The studies reported in Appendix A indicate that the average correlation between *Organizational Commitment* and *Age* is .26. With gender the only significant correlation is $-.17$. With number of dependents, commitment's average correlation is .18. With *Tenure*, one study reports $r = .13$ (Gould and Werbel, 1983) while the other reports $r = -.31$ (O'Reilly and Chatman, 1986). Correlations with *Job Involvement* (.46) and *Job Satisfaction* (mean $r = .67$) are higher than those with the demographic variables. The average significant correlation between *Organizational Commitment* and disengagement intentions (including *Intent to Search* and *Intent to Quit*) is $-.56$. Finally, the average correlation with *Turnover* is $-.34$. The scale used to measure commitment for these data, however, included the question about *Intent to Quit*.

Job satisfaction. Most studies of global and facet satisfaction report low or nonsignificant correlations with turnover. The correlation associated with the satisfaction-with-work facet ($r = -.46$; Hom & Hulin, 1981; see Appendix A) was only moderate and no longer significant upon removal of the effect of the behavioral intention to reenlist. This is an example of the type of effect that is hidden by simple bivariate reporting. If job satisfaction is related to turnover, the relationship is not a simple one. In fact, more and more authors question the idea that these disengagement behaviors result from dissatisfaction with the job.

Job satisfaction and organizational commitment. The average correlation between job satisfaction and organizational commitment (based on four correlations shown in Appendix A) is .67. This is one of the highest correlations seen in all the studies pertaining to disengagement and its precursors, suggesting either a strong relationship or some redundancy of measurement. Interpretation is made difficult by the inconsistency of the correlations among job satisfaction, organizational commit-

ment, and turnover. The Hom and Hulin (1981) study, in which removal of behavioral intentions turned a moderate relationship with turnover into a nonsignificant one, reduces confidence in the bivariate findings. This result suggests that if organizational commitment (without the intent to quit element) plays a role in causing turnover, its effect should be more pronounced further back in the model rather than immediately antecedent to turnover and intent. One of the purposes of my study was to determine if organizational commitment (with behavioral intent is removed from the construct) and job satisfaction have independent roles in predicting disengagement.

Organizational commitment and job involvement. Steers (1984) concludes that there is a relationship between organizational commitment and job involvement but that it is not very strong. Jobs, according to him, represent the key mechanism for contributing to an organization's goal attainment (hence the source of what relationship there is), but employees may remain uninvolved in the actual task requirements of the job despite being committed to the organization and faithful in performance of their duty (Steers, 1984, p. 466).

The approach to job involvement suggested by Koch and Steers (1978) is an example of how the meanings of job involvement and organizational commitment can lose their distinctiveness. These authors describe "job attachment" as an attitude reflecting the fit between the real and the ideal job, occupational identification and reluctance to seek alternative employment. Because this definition includes both identification and reluctance to seek alternative employment, it overlaps the definition of job commitment proposed by Mowday et al. (1979). Kanungo's approach, on the other hand, separates these constructs into distinct, unidimensional attributes whose effects on turnover can be independently measured (Kanungo, 1981, 1982a and 1982b).

Alienation and involvement are often used to represent parallel dimensions of work-related affect. Both ultimately refer to psychological states of the individual,

although alienation tends to be the preferred term of sociologists who describe the phenomenon at the collective level (Kanungo, 1981). Following the general practice in psychology, this paper will use the term involvement.

Kanungo defines work involvement as an identification with work, a perception of work as having the potential to satisfy one's salient external and internal needs and expectations (Kanungo, 1981, pp. 8-9). Job and work involvement are independent constructs. Job involvement focuses on beliefs about a particular job while work involvement deals with attitudes about the value of work in its more abstract form (Kanungo, 1981, p.9). One can be highly work-involved but not job-involved because the particular job does not meet salient needs (and vice versa).

Gorn and Kanungo (1980) and Kanungo (1981, 1982a and 1982b) note that the job involvement construct has been confused in the past with the issue of intrinsic motivation on the job. They cite the scale developed by Lodahl and Kejner (1965) as an example of that problem. The finding of Gorn and Kanungo (1980) that job and work involvement covary for extrinsically motivated subjects but not necessarily for intrinsically motivated subjects implies that these are separate constructs. Kanungo (1982a) further reports that when the experimenter controls job satisfaction, job involvement levels do not vary significantly on the basis of whether the subject is intrinsically or extrinsically motivated.

Kanungo (1981, 1982a, 1982b) cautions that work involvement is not identical with the Protestant Work Ethic. While socialization stemming from the Protestant Work Ethic may result in work involvement, such involvement may also develop independently.

Based on considerable research and close analysis of the literature, Kanungo (1981, 1982a, 1982b) concludes that the scales which are used most today to measure job and work involvement (Blood, 1969; Lodahl & Kejner, 1965; and Saleh & Hosek, 1976) cannot produce valid results. He therefore developed and tested his own Work

Involvement Questionnaire and Job Involvement Questionnaire (Kanungo, 1982a). This study will use these two instruments to measure work values.

Variables that link affective responses to disengagement. A few studies have reported on the relationships among the elements which cluster closer to *Turnover* in the path diagram suggested by Mobley et al. (1979). According to Hom et al. (1984), *Thoughts of Quitting* are well connected to *Job Satisfaction* ($r = -.64$), to *Intent to Search* for alternative jobs ($r = .70$), and *Intent to Quit* ($r = .66$). The relationship with actual quitting behavior, however, is much weaker ($r = .23$). Generally speaking, evaluation of alternatives was only marginally correlated with anything. Since this variable appears to resemble Mobley's *Attraction—Expected Utility: Alternatives* variable, these findings raise questions about the usefulness of the construct. It may be that alternatives are sought after the decision to quit rather than before, or that simultaneous analysis of the *Attraction—expected Utility: Present Job* variable includes this subjective assessment.

Williams and Hazer (1986) tested two causal models of turnover using LISREL and concluded that neither personal characteristics nor the work environment have a direct effect on turnover intentions. They stress that, in models of turnover, the intervening variables *Satisfaction* and *Commitment* reflect the affect that results from very diverse antecedents. They also report that personal and organizational factors directly affect only satisfaction; they influence commitment indirectly, suggesting that all determinants derive their effects through satisfaction. Their research shows stronger support for the idea that satisfaction leads to commitment than for the reverse and indicates that commitment, as they measured it, has a more important effect on intent to leave than does satisfaction. They criticize the organizational commitment instrument, however, because it contains statements about intent to leave and strongly advise stripping this element from commitment questionnaires when they are to be used with an *Intent to Quit* outcome.

Based on this literature, the present study follows the advice of Williams and Hazer (1986) who recommend concentrating on the sequence of emotional responses that lead to turnover. This study downplays the importance of objective information about the organization, the individual, and the economy, although some details have been collected. For instance, the questionnaire records perceptions of job characteristics, the demographic variables discussed above, and paid or volunteer status.

The major focus of this study is on the interrelationship of the affective measures. An attempt has been made to measure affective responses to work in general, to the particular job, and to the organization. The study solicits subjective estimates about the comparative abilities of this and other organizations to meet the individual's needs and values in an attempt to understand the relationship between these key variables and disengagement behavior.

The Volunteer Employee

The Value of Researching the Volunteer

This study includes both volunteer and paid employees in its pool of respondents because their differences may provide valuable insights into the disengagement process among all workers. Economic necessity acts as a kind of film that opaquely the operation of the most important and immediate organizational motivation variables. Understanding the operation of these motivational antecedents of commitment or disengagement with volunteers may serve to reveal more clearly the operation of such variables with paid workers. This was one goal of this research.

Another goal was to understand the employee-organization linkage when unpaid workers are involved because volunteer workers are an important subject of study. Gidron (1980) points out that the contribution of volunteer workers to society's economy has largely been ignored or denigrated in the past. There are, of course, different types of voluntary activities affecting the welfare of a community (see Houghland (1979) and Schulman (1980) for taxonomies). Volunteerism, however,

extends far beyond membership and participation in such formal volunteer associations. A wide range of volunteer activities has evolved in specific response to community needs. Examples include community service projects, "hot lines," crisis centers, and support groups, manned in part or whole by volunteers. These activities have a different developmental history from the service-oriented social associations such as Rotary, the Lions, or the Junior League and involve somewhat different motives. The reasons for engagement thus may be social or instrumental or they may involve pure dedication to a cause. These motives should interact with work conditions. Purely social motives would probably fail to compensate for negative experiences and would not prevent disengagement. On the other hand, some instrumental and altruistic motives might encourage a volunteer to persist despite discomfort. The differential effects of such motives were assessed in this study as part of the values variable suggested by Mobley et al. (1979).

Parallel to these special interest groups are the support organizations that develop around specific institutions such as hospitals, schools, and various arts organizations. While these activities may begin as a product of common functional interests among participants and may at first maintain their private nature, in many communities their structure begins to interact with the formal community structure, particularly with local government.

The intimacy of the linkage between the function-oriented volunteer activity and the community structure varies both within and among communities. For instance, identification with the volunteer activity or community organization may be low for corporate volunteers who become involved as part of a boundary-spanning role within the paying organization. They would probably identify more with the goals and policies of the parent organization than with the voluntary organization (Corporate Volunteer Coordinators Council, 1984). Identification with the community organization is probably also low for those who perform a variety of short-term tasks such as

annual fund collection for the organ-of-the-month campaign. Nonetheless, many of the function-oriented or community-directed organizations do “employ” volunteer workers on a regularly scheduled basis. These workers perform tasks that are similar to those of the paid worker. The structure of their work situation may be very close to that of their paid co-workers, and their roles are less easily differentiated solely as “volunteer.”

Volunteers as a Human Resource

Some communities have harnessed, structured and coordinated this resource. Virginia Beach, Virginia, for instance, employs a city-wide coordinator plus coordinators in each functional area who maintain manning level specifications for volunteers and regularly collect personnel statistics. The city also makes a concerted effort to integrate volunteer- and paid-employee services (City of Virginia Beach, 1970).

Not all communities share this view concerning the importance of volunteers. Gidron (1980) notes that recognition of the worth of volunteer workers and understanding the value they place on noneconomic rewards would help in their integration into a system and in full use of their time and services. Nonetheless, negative perceptions of volunteers persist. Even within a community system which officially welcomes their services, some members of that system will view them as unfair competition or “scab” labor (Hassen, 1982).

Generally speaking, volunteers tend not to be taken very seriously. The experience they gain has traditionally been discounted in hiring criteria. Their dedication, commitment and professionalism are suspect (Hassen, 1982), and their motives and processes of affiliation are only dimly understood (Jenner, 1981; Latham & Lichtman, 1984; Smith, 1981; Statham & Rhoton, 1985; Tomeh & Chilson, 1981). Part of the stereotyping and trivialization stems from the lack of recompense given for their service; no concrete evidence of its value can be perceived. In addition, although its social aspects are important in paid work's satisfaction, the general perception of

greater emphasis on sociability in volunteer associations causes the volunteers themselves to depreciate their efforts (Daniels, 1985). Highly valued work activities are often denied to volunteer workers unless they have some scarce but respected skill or attribute which makes them exempt from such social control, as in emergency rescue personnel (Oldham, 1979). Such socially-imposed role restriction predictably leads to depreciation of the volunteers' contribution since they do not perform the more valued tasks. Concurrently, the volunteers themselves, aware of other peoples' low evaluation of their efforts, will lower both their desire to volunteer and their commitment to the organization. Such perceptions generate a downwardly spiraling feedback process and limit voluntary participation and the profitable use of that participation by potential beneficiaries.

One problem with using volunteers is that their part-time schedule may prevent them from participating meaningfully in decision making and the continuing shifts and changes in influence, policy, planning, and implementation. Knoke (1981) suggests that such involvement loss can be partially compensated for through more effective communication procedures which allow the volunteers to keep their perceptions and expectations current.

One other fact interacts with this problem. There are situations when higher level jobs may be given to volunteers if an institution-wide policy is enacted to ensure such status sharing. However, special provisions must be made to determine who will carry authority in crisis situations when volunteers and paid workers interact in a command situation. For instance, when equivalently-ranked volunteer and paid fire-company chiefs might be present at the same fire sites, prior determination must be made about which officer will have authority over the other. Routine determinants such as date of rank do not carry the same meaning when paid and volunteer workers compete because of differences in training, experience, and day-to-day involvement. Since such a decision normally favors the paid officer, this describes conditions in which

both social and institutional controls reduce the status of the volunteers, even when their level of professionalism would appear to free them from such control (Chief H. E. Diezel, personal communication, June, 1985).

These are not the only perceptions and attributions which can limit the value of volunteer workers as a community resource. Their use by a city government can engender considerable dissatisfaction among paid workers if they interpret it as a way to reduce union control or to make the city immune to salary demands (Chief H. E. Diezel, personal communication, June, 1985).

Issues in management of the volunteer worker. Managers tend to believe that without the threat of income loss it is difficult to regulate the behavior of volunteer workers. However, Smith (1981) reports on the basis of a research review that, like paid workers, volunteers are also motivated by instrumental interests, volunteering to achieve rewarding, though not directly monetary, outcomes. While these interests may not necessarily be selfish, altruistic motives may not dominate with the volunteer any more than with the paid worker.

It would be foolish to stress too greatly the difference in monetary incentives between the voluntary and the paid worker. While pay is obviously a primary work motive, it does not necessarily drive all the connections among the causal variables leading to disengagement. Seldom is pay handled on a performance-contingent basis except for piece-rate and pure commission workers. When extrinsic rewards such as pay and benefits are dispensed without any consideration of merit, the paid worker is not too different from the volunteer; in both cases the continuation of their economic welfare is relatively independent from the quality of their job performance. Ultimately, when the choice process has passed all the intermediate steps and the individual confronts the single decision of whether to leave an organization or to stay, the paid worker must consider that the organization is a prime source of economic welfare. The choice for this worker must therefore entail evaluation of alternative financial sources

or a reduction in expenses. At the same choice point, the volunteer's income is not affected, although sources of self esteem, social reinforcement, expression of skill, and other satisfiers are reduced. Up until that point, however, the paid and volunteer workers are influenced by the same personal and organization variables.

Formalized exchange systems. Some cities are beginning to treat volunteers more formally as a human resource (Gidron, 1980). That is, they deal with volunteers as if they volunteer work in exchange for the noneconomic resources that the city can provide. Sometimes work is exchanged for training. Sometimes it is exchanged for a chance to make one's skills known in the hopes that paid employment will follow. More intrinsic satisfiers are exchanged in other circumstances. Some voluntary jobs allow satisfactory expression of skills and talents; others exchange unpaid work for exposure to valued stimuli such as art for the gallery docent, or historical material for the museum worker. Very often the exchange is social contact with similar others.

Whatever the exchanged "commodity," the identical process accompanies economic exchange with the paid worker. These incentives are not different for volunteers; it is more likely that their effect on paid workers is simply masked by pay. In fact, dissatisfaction with these nonpay, commodity exchanges could affect the paid worker and the volunteer to a similar degree. The power of such exchanges over the paid worker's disengagement decisions might well be hidden until another financial alternative is available. At that point it would be too late for management to take corrective action, and a worker would be lost as soon as economic circumstances made departure feasible.

Disengagement Models and the Volunteer

Comparison of Paid and Volunteer Workers

There is very little literature examining differences and similarities between volunteer and paid workers (Pearce, 1983). Consequently, it is difficult to determine whether the disengagement models describing paid workers will generalize to unpaid

ones. In fact, Knoke and Prensky (1984) claim that the many differences they believe to exist between firms and voluntary associations preclude organizational theories having any usefulness for voluntary associations. However, when volunteers work in the same organizations as paid workers, with similar requirements for attendance and performance quality, it is reasonable to predict that more process-oriented models (as opposed to structural models) would pertain also to the volunteers. This is one of the empirical questions tested in this study.

Only three studies were found comparing paid and volunteer workers. Schoderbek, Schoderbek and Plambeck (1979) found the average need-satisfaction scores of volunteers to be consistently lower than those of paid workers for almost every measured need; however, the validity of generalizing the findings may be limited because of the nature of their instrument. A second study failed to distinguish paid and unpaid workers on the basis of characteristics of “the helping personality” (Hobfoll, 1980).

Pearce (1980, 1983) provides the most comprehensive direct comparisons of both types of worker. She found volunteers to be less willing to assume leadership positions (Pearce, 1980). She reported that paid and volunteer workers holding similar jobs showed no significant differences in intrinsic motivation levels, but that volunteers scored significantly higher on social motivation, service motivation, global job satisfaction and job praiseworthiness (an approximation of sufficient justification cognitions) (Pearce, 1983). Finally, paid workers scored significantly higher on four intent-to-quit items, but, as she cautioned, these comparisons should be evaluated carefully, since it is easier for a dissatisfied volunteer to quit (Pearce, 1983). That is, a larger proportion of volunteers would already have left by the time this information was solicited.

Characteristics of volunteer participants. Very few studies have examined individual and organizational characteristics affecting membership and participation in

voluntary organizations. Furthermore, there appear to be differences in findings as a function of the time period in which the data were collected; socioeconomic status and sex were reported as more salient in the past than in the present. Some researchers, particularly earlier ones, report that volunteers tend to have higher socioeconomic status than do nonvolunteers (Dotson, 1951; Gallup, 1979; Phillips, 1967). In contrast, Smith, Luloff and Taranto (1981) found that education, income and socioeconomic status could discriminate only weakly between people who are active in or apathetic toward community-oriented organizations. A longitudinal study of women volunteers by Statham and Rhoton (1985) reveals that while employed women who do volunteer work ultimately earn less than those who do not volunteer, increased voluntary activity is associated with higher education, training, work experience and occupational prestige. Education level is included in the present study because of such conflicting findings.

Traditionally, there has been a sex difference in the types of volunteer activities undertaken. McPherson and Smith-Lovin (1982) report that even in more modern times men tend to belong to larger organizations and to organizations which are more central to economic institutions, while women affiliate more with peripheral, smaller organizations that are associated with domestic or community affairs. Hoyt, Ollenburger, and Gosselink (1985), however, note that in the last 20 years this pattern has been changing. Women have been moving into the volunteer fields previously associated with men, those fields that are more central to the economic realm. As women's role in work changes, so may their volunteer pattern.

The individual's relationship to the organization. Quite probably there is an interaction among several personal situation variables and the degree of involvement of the volunteer in the organization. Jenner (1983) noted that there are typical sets of activities found more frequently at different stages in adult life, the nature of these demands affect the nature of the volunteer work undertaken. Jenner's female subjects

reported that their volunteer involvement was influenced more by their children's needs and opportunities than by their own or their husband's, and that the age of their youngest child was significantly related to the number of volunteer hours worked. Jenner believes that the adult development stage is therefore a major determinant of the volunteer role assumed and in degree of involvement. Another way of looking at this has to do with role rather than with "development" or gender. If people are primarily responsible for taking care of dependents and monitoring the activities of others, then both their paid and volunteer activities will be affected. In our culture, of course, women may assume this role more than men. A related issue, not directly addressed in the literature, could be the responsibility to run errands for elderly or handicapped household members. Such care-giving should be included in the family responsibilities variable specified by Mobley et al. (1979).

The organization's effect on the individual. Commitment correlates strongly with being wanted by others in the organization and has a significantly higher association with social needs than with the material benefits to be derived from association with an organization (Latham & Lichtman 1984). Situational variables such as orientation process, staff support, and time spent on administrative tasks have more of an effect on commitment of correctional volunteers than any personal variables (Pierucci & Noel, 1980). Thus, characteristics of the job can be expected to play a causal role in the commitment or disengagement of volunteers as well as of paid workers, indicating that yet another variable typically found in the disengagement models affects both.

Purpose of this Study

The research reviewed above on disengagement and on the volunteer worker indicated that a full test of the Mobley et al. (1979) model should be made. Additionally, the role of a wider range of affective responses specific to work, job, and organization appeared to merit further investigation in such a model. Finally, the

literature suggested the appropriateness of either attempting to expand the boundaries of the model to include the volunteer worker or constructing an alternate model to accommodate both types of worker.

Since very little of the research material suggests concrete steps to be taken in enhancing the commitment and participation of volunteers, the results of this investigation will allow managers to frame their approaches to the volunteer in the same context as they would their paid employees even though some of the variables will differ in importance for the two groups.

Description of the Models

The Central Determinants of Disengagement

Figure 3 showed the general model as it was proposed by Mobley et al. (1979). It specified the central determinants of turnover as *Satisfaction*, *Attraction—Expected Utility: Present Job*, *Attraction—Expected Utility: Alternative Job*, and *Intentions to Search and Quit*. These principal determinants have been retained in the version of the model tested in the present research. Mobley et al. (1979) also indicated that a number of other exogenous and endogenous variables were involved in turnover. The sets of variables fit on five levels: structural, cognitive, affective, intentional, and behavioral.

Path diagrams for both the Mobley et al. (1979) model and the modification of it suggested by this review of the research literature are shown in Figures 4 and 5. Both the Mobley model (Figure 4) and the modified model (Figure 5) were to be analyzed for all subjects and separately for paid and for volunteer workers.

Mobley's *Individual Values* (Mobley et al. 1979) has been broken into three categories in this study: Job Involvement, Work Involvement, and Nonpay-Related Work Values. Organizational Commitment, without its connotative component, was added before Job Satisfaction in the augmented model. It was predicted that these different affective responses to the work role and work climate would bring unique sources of variance to the outcome variables. The instruments used to measure work

involvement and job involvement differ from those used in previous research, in that their excess meaning has been reduced. Job involvement and job satisfaction were expected to be complementary.

Propositions

Fit of the Mobley et al. (1979) model. It was proposed that path analysis would confirm the fit of the Mobley et al. (1979) model to the data provided both by volunteer workers and by paid workers. It was further proposed that the augmented model, when adjusted for alterations in partial regression coefficients, would provide better fit for both volunteers and paid workers when Organizational Commitment and a disengagement variable, Intent to Alter Involvement Level, were added.

The particular hypotheses concerning relationships among the variables in the models are indicated in Figures 4 and 5. Signs on the paths represent predicted relationships. Question marks on the paths signify that a prediction is not possible based on the reviewed research. The following commentary provides the rationale behind some of these predicted relationships.

Turnover. It was proposed that the immediate precursors to turnover would be the separate disengagement intentions and Mobley's *Quitting Enhancement or Constraint* construct. Based on the different aspects of this variable that Mobley suggested, it has been broken into a number of constituent variables which are discussed below. Disengagement intentions include several covert outcomes which are measured and specified separately as *Intent to Quit*, *Intent to Search for Alternatives*, and, in the augmented model, *Intent to Alter Involvement Level*. The overt behavior, *Search for Alternatives*, is included because of Mobley's recommendations and because his colleagues, Hom, Griffeth, and Sellaro (1984) also found a direct path between search behavior and turnover. It was predicted that this relationship would be found for the paid workers; however, no prediction was made for volunteers.

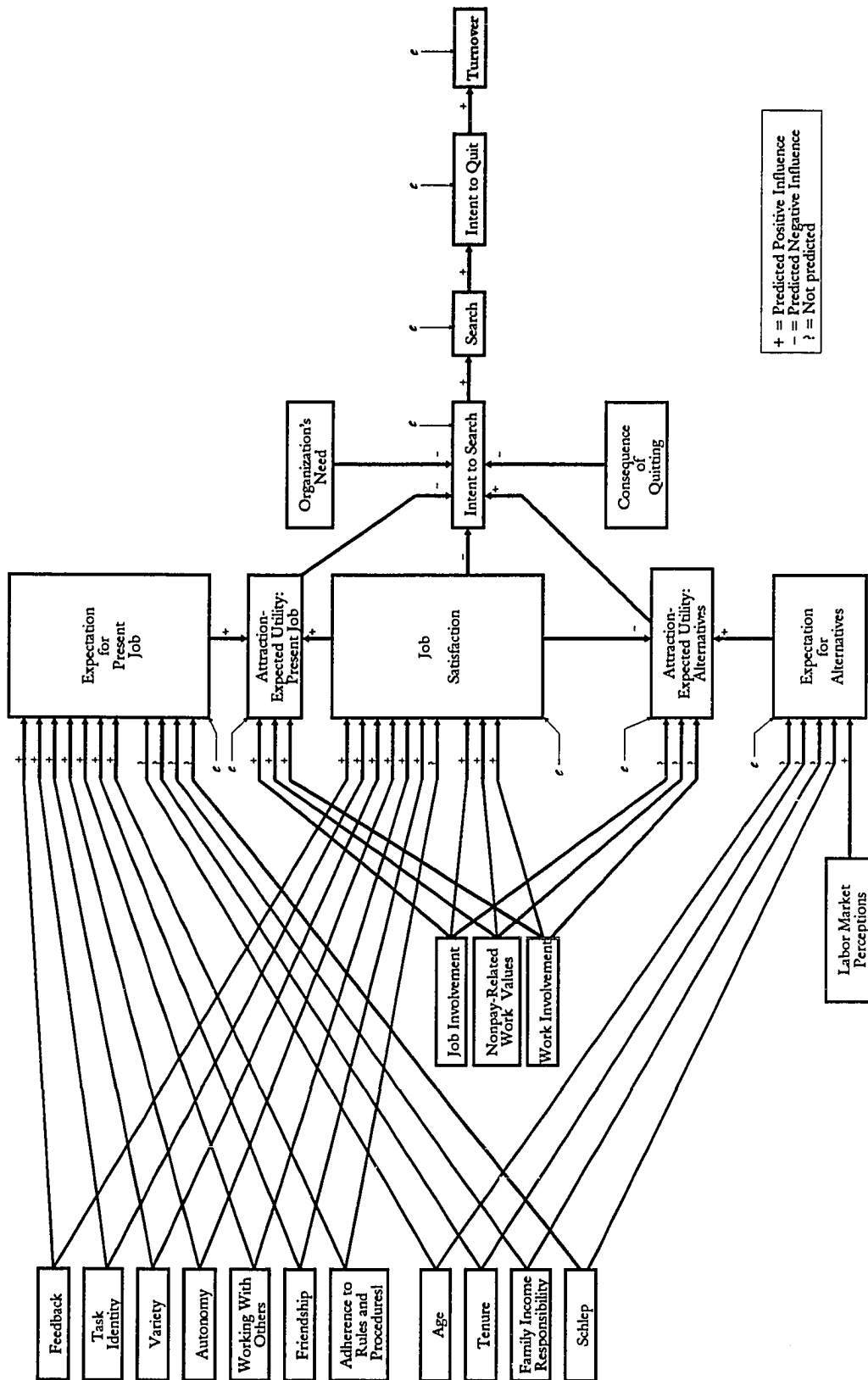


Figure 4. Path diagram of the determinants of turnover proposed by Mobley et al. (1979) as they were specified in this study.

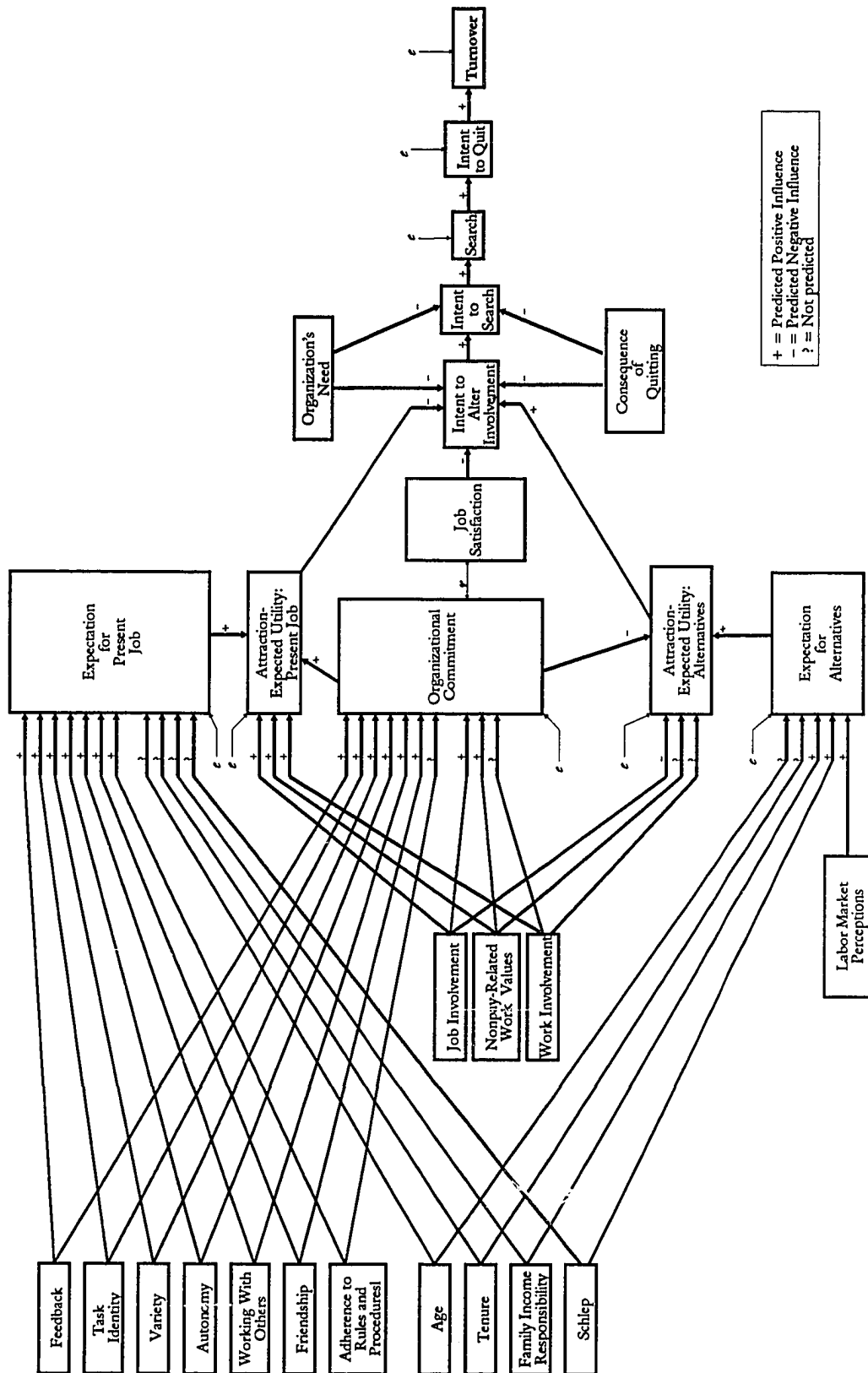


Figure 5. A path diagram of the proposed augmented disengagement model as it was initially tested in this study.

Quitting enhancement or constraint. For Mobley et al. (1979) there are non-work consequences of quitting that include beliefs about consequences to the organization, family, and others; ethical considerations; and contractual limitations. It was predicted that two sets of these beliefs would directly affect *Intent to Search*: beliefs about the consequences to the organization having to do with the organization's needs for the worker's particular skills, and beliefs about the consequences of quitting to significant others.

Expectations about alternative jobs. Individual needs and values make different aspects of work salient to different subjects as they evaluate available alternatives. The individual weighs information about the job market while implicitly considering those motives, deriving conclusions about the availability of desirable jobs and his or her qualifications for the jobs that are available. The results of this covert process affect perceptions about the labor market which determine alternative job expectations. A direct relationship between optimistic perceptions of labor market conditions and positive assessment of alternative job expectations was expected.

Organizational commitment. It was proposed that *Job-Related Perceptions*, *Nonpay-Related Work Values*, *Work Involvement* and *Job Involvement* would determine *Organizational Commitment*. Since direct questions about quitting intentions were to be removed from the Organizational Commitment scale because of overlap with the *Intent to Quit* variable, it was predicted that *Organizational Commitment* would enter the path to disengagement earlier in the process than it has in previous studies.

A moderate, positive correlation with *Job Satisfaction* was expected. If the only difference between what the job satisfaction and organizational commitment scales measure is intent to quit, then the removal of that element should still yield a high correlation between the variables. However, a moderate or low correlation would tend to confirm that although both variables assess the subject's affective response to the work situation, they tap unique dimensions of that response.

Individual work values. The relationship between pay status and job involvement was difficult to predict because of an absence of previously reported correlations. While volunteers may claim that the intensity of their job involvement is proved by their working for nothing, paid workers similarly claim that their professional identification with the job enhances their job involvement (Hassen, 1982). It is reasonable to expect both paid workers and voluntary workers to have a flexible mix of extrinsic and intrinsic needs which are brought to bear on perceptions of the job and organization and its satisfactoriness. Work values that are unrelated to pay are expected to moderate affective responses to work and expectations about the job and the ability of alternatives to provide satisfaction. In certain types of jobs there are strong instrumental reasons for volunteering. For example, most firefighters “apprenticed” in a volunteer program, using the volunteer work as a spring-board to paid firefighting work. The status and public recognition associated with fire and rescue work and the close camaraderie found in such cohesive work groups could be expected to provide extrinsic incentives for both career and volunteer workers in these areas. It was proposed that volunteers would endorse work involvement for its own sake more than paid workers, and that they would also subscribe more widely to the nonpay-related work values.

Predicted Differences Between Paid and Volunteer Workers

The literature on the differences and similarities between paid and volunteer employees is far from definitive, yet certain relationships can be predicted when the two groups of employees are considered in the light of the Mobley et al. (1979) model. Both groups are motivated by instrumental interests. Paid workers are motivated, of course, to earn their salary. Volunteers work to achieve rewarding, though not directly monetary, outcomes. While these interests may not necessarily be selfish, altruistic motives may not dominate for either group (Smith, 1981). Both groups of workers are influenced by the same personal and organization variables up until the point where departure choice is affected by economics. Thus it can be predicted that so long as economic factors do not

enter into the equation, there will be no differences in response to structural and personal variables. However, when personal and family income are involved, differences can be expected. Similarly, intrinsic motivation levels and dissatisfaction with nonpay, commodity exchanges could affect the paid worker and the volunteer to a similar degree, although intent to leave and actual departure might vary for the two groups because of financial constraints. Selection factors might affect which characteristics and personal responsibilities the worker is likely to bring to the work situation. Education and socioeconomic levels probably cannot be investigated in an unbiased fashion in this study since the work itself demands certain levels of education and background. The family responsibility variable, particularly as it refers to the regular caregiving role, may concentrate on volunteers since too many family responsibilities would mitigate against full-time employment. In terms of nonpay-related work values and satisfiers associated with work, no difference between the two groups can be predicted, since there are instrumental reasons for good job performance in both situations, and the status and public recognition factor is balanced across groups in this study.

Since the major difference between the two groups is the economic welfare associated with the paid worker's position, when the choice to quit or stay has passed to financial considerations, the paths that the two groups will take should be quite different. Actual quitting should be easier for the volunteer since he or she does not have to wait for a viable alternative before acting; thus more turnover is expected with the volunteer, and the reasons for disengagement may be less directly tied to the work situation. External factors could have a more potent effect on the volunteer than on the paid worker since the volunteer activity is not so central to the individual's financial welfare and that of his or her family.

Two relationships are important but not necessarily predictable. First, pay status should moderate the effects of family responsibilities, with increases in family responsibility reducing quitting constraints for volunteers but increasing them for paid

workers. Secondly, the relationship between pay status and job involvement was difficult to predict because of conflicting claims and a lack of empirical data. Clarification of the issue is made difficult in this research because self-selection has probably eliminated uncommitted personnel from the more physically or emotionally traumatic jobs. Job involvement should be more pronounced with volunteers, since nothing binds them to the job in adverse circumstances except their own commitment to some cause or to the nonpay “commodities” offered by the situation. Finally, work involvement should be higher for the volunteers (that is a strong reason for volunteering!), but, as noted above, job involvement cannot be predicted.

The global prediction is that a path analytic model incorporating the variables suggested by Mobley et al. (1979) should be able to account for the data produced by both paid and volunteer municipal workers. An augmented model including organizational commitment and the intent to alter involvement should fit the obtained data even better once its paths are trimmed to adjust for the new interplay of variables.

Methods

Subject Sampling Procedures

Sampling frame. Seven hundred and ninety-six line personnel of the Fire Department, Emergency Medical Services (Rescue, or EMS), and Library Department of the City of Virginia Beach, Virginia, constituted the subject population from which participants were drawn. This included 413 volunteer and 383 paid workers. When data collection began, there were 316 Rescue workers on the rolls (all volunteer), 46 volunteer and 260 paid firefighters, plus 51 volunteer and 123 paid librarians. Turn-over and out-of-town training assignments changed the numbers slightly in some cases during the data collection period. The collected data were still analyzed if the questionnaire had been answered before such status changes took place. If not, the subject was dropped from the pool and a replacement was sought through random selection.

Each department prepared rosters of its personnel. The lists were completely accurate for the paid workers and voluntary librarians, but were inaccurate for the voluntary firefighters and rescue squad workers. Since having a large membership was considered to be politically important to these units, there was some reluctance to take names off the roster; furthermore, record keeping quality was not uniform. Consequently, the lists of firefighters and rescue squad workers had to be verified before sampling could take place. Each rescue or volunteer fire commander was interviewed and asked to verify the roster. This served to purify the lists to a certain degree, but it was not until actual attempts were made to find the individuals listed that accurate information about their active or inactive status was received. The numbers of personnel shown above are considered accurate.

There are 16 paid and 15 volunteer fire companies in Virginia Beach. Each paid company operates three shifts with a captain and two to eight firefighters or master firefighters per shift. Shift hours vary for the volunteer companies, and the number of

volunteers per company and shift ranges from zero to four. Most rescue workers work on a nightly shift. Those in the rural squads (Sandbridge, Creeds and Blackwater) respond to “beeper” calls from their homes or places of business. Members of the other, more urban squads work out of the fire stations.

When the survey began, there were five regular library branches plus a special services building. Pending completion of the central library building, the department distributed its central library staff members and specialized departments among these branches. Most of these units use both paid and volunteer workers.

The sampling frame included no fire or Rescue personnel above company level since volunteer positions do not exist at higher levels. Also, clerical workers in fire and EMS were not sampled since they cannot be matched across pay status.

Active status determination is clear-cut and consistent for all paid workers and for library volunteers; however, procedures vary somewhat from company to company for fire and rescue volunteers. To have been considered for inclusion in the sample, volunteers in fire and rescue must have been standing duty on a regular basis (at least twice a month) and must have traveled regularly as crew on the emergency vehicles during the survey period.

Sampling design. Random numbers were used to produce a 60% stratified sample that yielded 476 potential subjects. The strata included three departments (Fire, EMS and Library) and two categories of pay status (volunteer and paid) running orthogonally to the department strata. Missing elements occurred under the paid/rescue category.

Data Gathering Procedures

Questionnaire administration. Administration procedures varied somewhat from department to department because of the nature of the work and because of preferences of the senior administrators. All potential subjects, supervisors, and

department heads were made aware of the steps taken to safeguard the rights of the subjects and the rights of units to confidentiality.

For the Fire Department, the researcher or an assistant visited each shift of every fire company and explained the research to the shift captain. The captain assembled the randomly-selected firefighters and the researcher again explained what was required. In cases where a firefighter was absent or was temporarily assigned to another unit, return visits were made until the respondent completed the questionnaire. Substitutes for subjects who were to be absent for a long time were randomly selected from the personnel of that unit. Since most shifts were small, there usually was no real choice about who the substitute would be. In the two cases of outright refusal, no replacement was made. The two who refused to participate were asked to give their reasons and were reassured that their refusal would not engender any reprisals. The refusals were caused by the firefighters' fears that management would see their answers and that they would lose their jobs.

At the volunteer fire companies, the chief reviewed the roster supplied by the Fire Department. In all cases the list was inaccurate. Names were deleted as appropriate, and all members who did not actually ride the vehicles were removed from the pool. For six weeks, the volunteer companies were visited biweekly in an attempt to contact all the remaining firefighters either directly or through the chiefs; however, attendance tends to be erratic in most companies and only the active members were reached. While this reduced the size of the sample, it also ensured that one assumption of this study was met; that is, the comparison should be between active, currently working paid and volunteer employees who have a professional orientation and regular attendance.

For the rescue squads, the monthly meeting was the most feasible time for introducing the research. The squad president or chief updated the researcher's roster (provided by EMS) before the meeting and computer-generated random numbers

were used to select the initial 60% sample. A randomly-generated list of substitutes was also prepared at that time. Questionnaire packets were distributed during the squad meeting.

Since the Chief of Finance had approved the administration of the questionnaire during working hours, library supervisors specified the time they preferred for their own workers to complete the questionnaire. For both paid and volunteer librarians, the library supervisors handed out, explained and collected the questionnaires.

Packets containing the questionnaire, a full-disclosure sheet and an informed consent form were given to the selected subjects. Upon completion of the form, the subjects sealed the envelope and returned it to the station house or library supervisor for pick-up by the researcher. Since the rural rescue squad members did not report on a regular basis to the station house, a second questionnaire was mailed to those rural squad members who had not returned theirs within a reasonable time and a stamped, self-addressed envelope was included to facilitate their return of the completed questionnaire.

Each station was visited twice a week, on the average, from the time the questionnaire packets were handed out until the collection period was officially closed. Pick-up of completed questionnaires from the library personnel was scheduled according to the appointment times set by the local library supervisors.

In addition to collecting data directly through the survey questionnaire, the research also involved the collection of turnover information from the units and departments. Because of the regular visits to the administration sites, it was possible to validate written records through on-site questioning. In the Fire Department the researcher had direct access to the monthly attendance and leave reports and was able to verify turnover first hand. The Library Department assigned a clerk to prepare a written status report on the list of names provided by the researcher; direct access was not allowed. Voluntary library staff were simple to monitor for turnover since accurate and up-to-date records were kept. It was impossible to find an accurate, regular

attendance report for volunteer fire and rescue workers and reliance had to be placed exclusively on the verbal information gleaned from supervisors and fellow-workers. Turnover information was collected at least once a week with each visit to the units over a 15-month period. The respondents could be identified in all cases and their status known.

Response rates. Table 1 shows the return rates for the questionnaires along with population and sample sizes. Completed, usable answer sheets were received from 184 volunteers and 220 paid employees for a total of 404. The return rate was 74.8% for the volunteers and 95.7% for paid employees. The overall usable response rate was 84.9%.

Questionnaire

The Employee Information Form. This instrument was designed for all subjects to answer using an optical scanning answer sheet. The wording was slightly altered to make the questions fit each department and the pay status of the respondent but the meaning of the questions was not changed. A copy of the questionnaire is included in Appendix B.

<u>Table 1</u>				
<u>Response Rates by Pay Category and Department</u>				
DEPARTMENT	POPULATION SIZE	60 % SAMPLE	ACTUAL SAMPLE	RETURN RATE
Vol. Lib.	51	30	28	91.5%
Vol. EMS	316	189	132	69.8%
Vol. Fire	46	27	24	87.0%
Volunteers	413	246	184	74.8%
Paid Lib.	123	74	72	97.3%
Paid Fire	260	156	148	94.9%
Paid Employees	383	230	220	95.7%
TOTALS	796	476	404	84.9%

Pretesting procedures. The average response time to complete the questionnaire was computed from data collected from one shift of a paid fire company in a neighboring city. This same group also helped to improve the questionnaire's comprehensibility. None of the subjects took longer than three quarters of an hour to complete it. There were comments about the repetitiveness of some of the questions, but since these belonged to the standardized questionnaires, these were not changed. Some of the questions from the three most offending sets were interlaced with each other to provide some variety.

Scales. The study used 28 scales. These included a number of standardized scales as well as scales designed specifically to assess the variables in this research. Details of their psychometric properties and elaboration of the constructs they were used to measure will be given in subsequent sections. Sample means, standard deviations and, for the multiple-item scales, coefficients of internal consistency (Cronbach's Alpha) appear in Table 2.

Scale construction. After data collection, construct validity of the specially-constructed scales was assessed using Principal Axis Factoring with varimax rotation. Additionally, Cronbach's Alpha, as a measure of internal consistency, was calculated for each scale. Anomalous items and scales were removed, leaving six scales. The scales created for this study include: Nonpay-Related Work Values, Attraction—Expected Utility: Present Job, Attraction—Expected Utility: Alternatives, Tenure, Adherence to Rules and Procedures, and Expectancies for Present Job. The standardized scales were the Job Characteristics Inventory (Sims, Szilagyi, & Keller, 1976), the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967), the Organizational Commitment Questionnaire (OCQ; Mowday, Steers, & Porter, 1979), the Work Involvement Questionnaire and the Job Involvement Questionnaire (WIQ and JIQ; Kanungo, 1979). These were used as prescribed by their authors with the exception of the removal of the intend-to-quit question from the Organizational

Commitment Questionnaire. This item was used separately to measure turnover intention (Q5).

Predictor Variables

Overview. The predictor variables can be clustered conceptually into four groups: individual characteristics, work factors, economic factors, and values variables. While the individual characteristics require fairly straightforward self report that is verifiable, the other groups require the reporting of situation perceptions rather than objective data. Since people act on the basis of their perceptions, this is a legitimate approach.

Individual characteristics. The questionnaire assessed *Tenure*, both for the job (Q102) and for the organization (Q103), on a five-point, ordinal scale. The five time blocks ranged from less than 1 year to over 15 years. *Age* was measured as a continuous variable derived from date of birth information found both in the personnel records (for paid workers) and on the response sheet. The proportion of the family income for which the respondent was responsible was assessed with *Family Income Responsibility* (Q108). *Schlep* (Q107) recorded how much time and energy had to be devoted to running errands and being “on call” for the other household members. This is the second family responsibility scale.

Work Factors. The Job Characteristics Inventory was used to assess perceptions of some key organizational qualities (Q33-Q62). Sims, Szilagyi and Keller (1976), using a variety of multivariate statistical approaches, partitioned the Job Characteristics Inventory into six subscales which were retained in this study (*Variety, Autonomy, Feedback, Task Identity, Working With Others, and Friendship*). In addition to these scales, *Adherence to Rules and Procedures* (Q124-Q127) assesses the influence of departmental rules, procedures and policies.

Economic Factors. Economic factors that fit under the exogenous perceptions heading were assessed with a single variable, *Labor Market Perceptions*. The question

(Q1) was presented in two forms, one for paid workers and one for volunteers. Q1 for paid workers read “How available are good jobs in the local labor market for people with your skill, experience, and pay requirements?” The volunteers’ question reads, “How available are good volunteer jobs in the local area for people with your skill, experience, and working goals?”

Work-Related values. Mobley’s Individual Values construct was represented by three different variables in this study: *Job Involvement*, *Work Involvement*, and *Nonpay-Related Work Values*. The Job Involvement Questionnaire developed by Kanungo (1979) has 10 questions (Q75, Q77-Q85). *Work Involvement* was assessed by means of the Kanungo (1979) Work Involvement Questionnaire, which has six questions (Q73, Q76, Q87, Q91, Q96, and Q101). It addresses involvement in work for its own sake, regardless of the organization or the particular job or position. Acceptable construct and predictive validities have been demonstrated by Jain, Normand and Kanungo (1979), Kanungo, Gorn and Dauderis (1976) and Kanungo, Misra and Dayel (1975). The final scale in this category, *Nonpay-Related Work Values* was composed of nine questions (Q63 to Q71) and assessed the strength of non-economic motives for becoming involved with the organization and maintaining that involvement. Respondents were given a list of things that attract different people to an organization and were asked to rate the strength of the attraction. Typical items were “Being with the kind of people I like,” and “I find this kind of work exciting.”

Expectations about the future. The two scales that fit this category assess predictions about the future potential of the job situation and of available alternatives. They are: *Expectancies for Present Job* and *Expectancies for Alternatives*. *Expectancies for Present Job* is based on the answers to questions Q112 and Q113 and focuses on promotion chances. *Expectancies for Alternatives* uses a single question, Q2, which asks subjects to rate the strength of their agreement with a statement about the ease of finding alternative employment or volunteer activities “that would suit my needs and

skills better than this one.” Q2 asks subjects to rate their chances of being selected over other candidates for an alternative job or activity.

Attitudes toward the situations. Four variables are attitudes. Two scales give future projections of attitudes: *Attraction—Expected Utility: Present Job*; *Attraction—Expected Utility: Alternatives*. Two scales assess current attitudes: *Job Satisfaction* and *Organizational Commitment*.

For *Attraction—Expected Utility: Present Job*, subjects were asked how satisfied they would expect to feel in three months (Q29) and in one year (Q30) if they were to continue in their present job. *Attraction—Expected Utility: Alternatives* is a future-oriented prediction of satisfaction if the individual were to leave this organization. Prediction is again based on three month’s time passage (Q31) and one year (Q32). *Job Satisfaction* was measured with the Minnesota Satisfaction Questionnaire (MSQ; Q9-Q28). Only the overall satisfaction score was analyzed in this study. Weiss, Dawis, England, and Lofquist (1967) report that a revised answer format for the long form adjusts for ceiling effect and produces mean scale scores that tend to be in the middle of the range with more symmetrical distribution. In this research, the revised format is used with the short form. Assessment of *Organizational Commitment* used nine items from the Organizational Commitment Questionnaire (OCQ) (Mowday, Steers & Porter, 1979). They are found in items Q90, Q92 to Q95, and Q97 through Q100.

Attitudes towards actions. Disengagement intent consists of three separate attitudes: *Intent to Alter Involvement* in the organization (Q6), *Intent to Search* for other activities or jobs (Q8), and *Intent to Quit* (Q5). *Intent to Alter Involvement* was not suggested by Mobley, but consideration of the emotional aspects of attachment and disengagement seems valid; consequently, it was included in the augmented model.

Mediating variables. Mobley proposed that the mediating variable *Quitting Enhancement or Constraint* intervenes between the attitudinal variables and actual quitting behavior. Two aspects of this variable were included: perception of the

Consequence of Quitting to others who are important to the subject (Q3), and the subjects' beliefs about the *Organization's Need* for their personal contributions (Q4).

Outcome Variables: Operational Considerations

The ultimate outcome variables are behavioral: search and departure from the organization. Certain considerations about the operationalization of these variables must be addressed before they can be specified.

Actual search behavior. *Search* clearly precedes *Turnover*; however, it seems reasonable to assume that it does not always occur before a quit or termination. Paid workers who are fired or let go because of a reduction in force may not have been alert enough to their circumstances to begin a job-hunt. Retirees and volunteers may not have to search for alternative activities; they may have already planned what they intend to do and might not recognize that activity as "search." On the other hand, *Search* may represent some emotional disengagement and yet not culminate in turnover, perhaps because of constraints, or perhaps because of feedback from the search process that made the present situation look better, or because the search process itself was cathartic and, temporarily at least, reduced the drive to change. Mobley, in the 1979 model (Mobley et al., 1979), left active search out, but the Mobley, Horner, and Hollingsworth (1978) study included it, and it was included in the reanalysis of that data by Bannister and Griffeth (1986). It is the emphasis on these several dimensions that led to the adoption of the "disengagement" term rather than "turnover" as the topic for this study.

Turnover. Actual *Turnover* was determined by the city personnel records. Since it is difficult to determine when voluntary termination may simply reflect a worker's acting upon the courtesy extended to him to quit in lieu of firing, all forms of turnover were monitored, including involuntary termination, unavoidable resignation, and avoidable resignation. In the case of the volunteer, "firing" is not the appropriate word, but in all departments volunteers have been asked to leave when their perfor-

mance or attendance has been substandard. In some cases, subtle steps may have been taken to alter the worker's perception of the expected utility of the present job. For instance, rescue workers considered unprofessional by their peers were ostracized and then voted out of the company. An additional path to *Turnover* with volunteers had to do with accreditation. Those who failed to keep their credentials current were forced into an inactive status, although they might be retained on the roll. Careful questioning was needed to make sure of the active status of the subjects.

Another situation which made determination of *Turnover* unclear for the volunteers in fire and rescue companies was military affiliation. Sailors home-based in this area who left for long-term sea duty but who might come back were initially designated as on leave of absence from the company. Those who had not returned by the time the data were being analyzed had that designation changed to *Turnover*. The justification had to do with the disengagement process. Even if they did realign themselves with a voluntary unit in the future, separation had been long enough (up to 15 months) to necessitate a new socialization process, learning of group norms and goals, and the establishment of new social and professional alliances. Furthermore, professional skills would have to be reestablished and credentials re-earned. The designation appears to be logical. Not all military absences warranted such treatment, of course. Some military personnel have a long-established pattern that clearly indicates that they keep up their ties with the unit despite absences. Their spouses, for instance, are often also active members. In this study, those rescue workers who might have fallen into this category returned from sea duty in time to reinstate their active status with their original company.

Involuntary termination includes firing for inadequate performance of duty or for characterological, moral or legal reasons, reduction in force terminations without prejudice, and mandatory retirement. Unavoidable resignation can be caused by such

factors as transfer of a spouse or oneself (by the primary employer). Health reasons, involuntary retirement, and family demands can be added.

Avoidable resignation, as Mobley (1982) points out, does not necessarily imply escape from an aversive situation; it can also reflect approach behavior toward a more attractive opportunity. Avoidable resignation in this research will include withdrawal from an aversive, dissatisfying job or work environment; leaving to take a better paying or more satisfying job, leaving to seek variety, or voluntary retirement, presumably to sample a different life style.

A volunteer can shift from active to inactive status and still retain some degree of identification with the organization. This appears to be an important issue for fire and rescue volunteers. In some units, workers are encouraged to “go inactive” for a short period of time when stress begins to become a problem. In such cases, both the unit leadership and the individual fully expect a return to active status. This shift can be likened to vacation and will be treated as absence. On the other hand, a shift from active to inactive status when there is no definite plan for reactivation should be accounted as *Turnover* despite continued emotional involvement with fire and rescue in their abstract form. In some units, such shifts are officially designated as such; however, in others, only failure to sign up on the duty roster or failure to appear for duty give concrete signs of status change.

Outcome actions: Specification. The question, “have you looked around at all for another job or voluntary activity,” (*Search*; Q7) allows a determination to be made about how active and concrete search behavior has become. Intensity of search behavior is scaled as an ordinal variable. The lowest level of intensity is none. Answers are ranked from there through “I’ve looked for ads for workers with my skills,” “I have made phone calls to organizations to get job information,” “I have appointments and/or interviews set up,” to “I’ve filled out applications for other jobs.” This is a measure of intensity, not frequency.

Turnover, both voluntary and involuntary, was based on frequency counts derived from the regular visits to the questionnaire administration sites and from review of personnel records maintained in the departments of fire and library. A follow up check was made with the EMS headquarters representative and the coordinator of Fire Department volunteers. At that time the entire subject list was formally reviewed for status changes.

Results

Overview

The goals of this research were to test the fit of the Mobley et al. (1979) model of disengagement to all subjects, to paid employees alone and to volunteer employees alone. A second goal was to compare the fit of the model to paid workers with its fit to volunteers. The third major goal was to test and compare the fit of an alternative model with paid and volunteer workers and to adjust that model as appropriate to determine if a model of disengagement could be generated which would account more fully for the behavior of both paid and volunteer employees than the Mobley et al. (1979) model.

In addition to these goals, there were some questions concerning certain variables that were raised by the literature review and by analysis of what is known about paid and volunteer work behavior. It was suggested that there would be differences between the paid and the volunteer workers in the degree of relationship between the disengagement variables and the following variables: perceptions of the *Organization's Need* for the worker's services; quitting enhancement or constraint because of perceptions of the *Consequence of Quitting* for important others in the subject's life; *Family Income Responsibility*; and *Schlep* or the degree to which the subject is responsible for running errands and taking care of the needs of household dependents. A Multivariate Analysis of Variance revealed similarities as well as significant differences between the volunteer group ($N=184$) and the paid employee group ($N=220$). Pillai's trace statistic produced $V = .60313$, ($s = 1, m = 15, n = 183$); $F = 21.6$, (hypothesis $df = 32$, error $df = 368, p < .0001$). Univariate analysis of variance revealed differences between the two groups in several variables (See Table 2).

Table 2

Variables, Means, Standard Deviations And Coefficients of Internal Consistency

<i>Variable</i>	<i>All Subjects</i>			<i>Paid Employees</i>		<i>Volunteers</i>	
	<i>Mean</i>	<i>SD</i>	<i>Alpha</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
TURNOVER	1.11	.33	*	1.03	.19	1.22	.41#
INTENT TO QUIT	1.23	.62	*	1.19	.54	1.28	.71
SEARCH	1.64	1.19	*	1.68	1.13	1.60	1.26
INTENT TO SEARCH	1.63	1.05	*	1.62	1.01	1.64	1.10
INTENT TO ALTER INVOLVEMENT	2.49	1.02	*	2.45	1.01	2.53	1.02
CONSEQUENCE OF QUITTING	3.33	1.03	*	3.78	.97	2.80	.83#
ORGANIZATION'S NEED	4.00	.85	*	3.88	.87	4.15	.80#
ATTRACTION-EXPECTED UTILITY:							
PRESENT JOB	3.48	1.06	.97	3.23	1.02	3.77	1.03#
ATTRACTION-EXPECTED UTILITY:							
ALTERNATIVES	2.34	1.11	.94	2.42	1.09	2.25	1.14#
EXPECTATION FOR PRESENT JOB	3.33	1.06	.62	3.04	.85	3.68	1.18#
EXPECTATION FOR ALTERNATIVES	2.41	.84	.56	2.60	.84	2.19	.77#
JOB SATISFACTION	3.32	.62	.90	3.18	.63	3.50	.56#
ORGANIZATIONAL COMMITMENT	3.55	.82	.92	3.28	.28	3.87	.69#
WORK INVOLVEMENT	2.62	.64	.77	2.51	.68	2.76	.58#
JOB INVOLVEMENT	2.76	.72	.88	2.65	.68	2.90	.73#
NONPAY-RELATED WORK VALUES	3.46	.77	.85	3.28	.79	3.67	.69#
LABOR MARKET PERCEPTIONS	3.43	.88	.48	3.01	.72	3.94	.79#
FRIENDSHIP	3.85	.81	.88	3.71	.79	4.02	.79#
WORKING WITH OTHERS	3.97	.79	.61	3.89	.77	4.06	.81
TASK IDENTITY	3.57	.86	.79	3.42	.88	3.75	.80#
FEEDBACK	3.08	.92	.86	3.01	.87	3.17	.97
AUTONOMY	3.25	.80	.78	3.13	.82	3.39	.76#
VARIETY	3.13	.84	.82	2.90	.86	3.41	.73
ADHERENCE TO RULES							
AND PROCEDURES	3.50	.70	.68	3.46	.69	3.54	.71
FAMILY INCOME RESPONSIBILITY	3.43	1.39	*	3.75	1.19	3.05	1.51#
SCHLEP	3.15	1.21	*	3.18	1.15	3.11	1.28
TENURE	2.84	1.21	.93	3.13	1.19	2.50	1.14#
AGE	34.65	11.15	*	33.94	7.75	35.51	14.18
Minimum N		401		219		182	

Range of scale values = 1 to 5.

* Single question measures.

Difference between means of paid and volunteer workers significant at $\alpha < .05$.

A Multivariate Analysis of Variance was also used to analyze differences among the five subject groups for all of the variables. Pillai's trace $V = .25159$ ($s = 1, m = 14.5, n = 182$); $F = 3.97$ (hypothesis $df = 31$, error $df = 366, p < .0001$). The univariate comparisons which produced significant differences among paid fire, paid library, volunteer fire, volunteer library, and volunteer Emergency Medical Service employees are shown in Table 3 along with the means and standard deviations for the variables for each group. The Scheffé procedure was used when the means for a variable differed significantly. A superscript in Table 3 marks the mean or group of means that are significantly different from the rest of the means for that variable.

Path Analyses of the Disengagement Models

The Mobley model. The Mobley model was tested for goodness-of-fit in the entire subject sample, the paid employees sample, and, finally, in the volunteers sample. In the test of goodness-of-fit of the model used in this research, path coefficients for both a just-identified model and an over-identified model must be computed. In a just-identified model, paths are plotted between each variable and each of the subsequent variables. In an over-identified model, some of those paths are deleted to fit the theoretical pattern of relationships proposed. This was done in this case for each analysis. Specht's technique for testing the goodness-of-fit of the model was then employed (Specht, 1975). Q , a measure of goodness-of-fit for an over-identified model (the theoretical model of interest), is based on the ratio of generalized variance actually accounted for by the model to the amount of generalized variance available for explanation. Q takes on values from 0 to 1.0, demonstrating an increasing degree of fit as the value approaches 1.0 (Pedhazur, 1982, 618-620). Q was tested for significance using W which has an approximate χ^2 distribution with $df = d$, where d represents the difference between the paths available (just-identified model) and the number of paths actually used in the over-identified model. Significant values for W would indicate that the model does not fit. The critical score for rejection of fit for the Mobley model is $W \geq 173.69$ ($df = 145$).

Table 3

Variables, Means, Standard Deviations for each department within pay group.

Variable	Paid Departments				Volunteer Departments					
	Fire		Library		Fire		Library		Rescue	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
TURNOVER	1.02	.14	1.04	.26	1.50 ^a	.51	1.32	.48	1.14	.35*
INTENT TO QUIT	1.16	.41	1.25	.75	1.38	1.06	1.36	.87	1.24	.58
SEARCH	1.62	1.10	1.79	1.19	1.83	1.58	1.64	1.34	1.55	1.19
INTENT TO SEARCH	1.51	.88	1.83	1.22	1.71	1.33	2.07	1.18	1.54	1.02
INTENT TO ALTER INVOLVEMENT	2.49	.96	2.38	1.12	2.21	1.02	2.96 ^a	.84	2.49	1.04*
CONSEQUENCE OF QUITTING	3.81	.96	3.71	.97	3.08	.78	2.96	.69	2.72	.85
ORGANIZATION'S NEED	3.93	.89	3.78	.83	3.88	1.04	3.46	.74	4.34	.66
ATTRACTION—EXPECTED UTILITY:										
PRESENT JOB	3.20	.98	3.29	1.09	3.69	.86	3.66	1.26	3.81	1.01
ATTRACTION—EXPECTED UTILITY:										
ALTERNATIVES	2.44	1.14	2.38	.97	2.77	1.30	2.64	1.22	2.09	1.04
EXPECTATION FOR PRESENT JOB	2.99	.71	3.16	1.09	3.52 ^a	1.04	2.14	1.46	4.03 ^a	.84*
EXPECTATION FOR ALTERNATIVES	2.72 ^a	.82	2.35	.84	2.08	.73	2.46	.67	2.15	.79*
JOB SATISFACTION	3.15	.55	3.23	.76	3.52	.61	3.55	.63	3.48	.52
ORGANIZATIONAL COMMITMENT	3.23	.82	3.38	.82	4.09 ^a	.58	3.58	.73	3.90	.68*
WORK INVOLVEMENT	2.49	.68	2.54	.76	2.98	.39	2.79	.58	2.71	.60
JOB INVOLVEMENT	2.70	.68	2.53	.68	3.25 ^a	.62	2.19	.48	2.99 ^a	.70*
NONPAY-RELATED WORK VALUES	3.39	.69	3.07	.94	3.84	.82	3.20	.86	3.74	.58
LABOR MARKET PERCEPTIONS	3.14	.66	2.72	.76	4.04	.72	3.71	.90	3.97	.77
FRIENDSHIP	3.83	.67	3.45	.95	3.98	.92	3.37	1.00	4.16	.65
WORKING WITH OTHERS	3.96 ^a	.68	3.76	.93	3.97 ^a	.90	3.10	1.15	4.28 ^a	.51*
TASK IDENTITY	3.31	.80	3.63	1.00	3.69	.82	3.93	.59	3.73	.83
FEEDBACK	3.00	1.81	3.04	.99	3.56	1.06	3.71	1.04	2.98	.87
AUTONOMY	2.97	.73	3.46	.91	2.81	.92	3.51	.80	3.48	.67
VARIETY	2.93	.77	2.84	1.02	3.36 ^a	.86	2.64	.76	3.58 ^a	.58*
ADHERENCE TO RULES AND										
PROCEDURES	3.45	.54	3.50	.92	3.59 ^a	.74	3.06	.92	3.63	.61*
FAMILY INCOME RESPONSIBILITY	4.15	.87	2.92	1.32	3.17	1.61	2.29	1.78	3.20	1.39
SCHLEP	3.11	1.06	3.33	1.30	2.79	1.38	2.82	1.54	3.23	1.20
TENURE	3.47 ^a	.99	2.44	1.26	2.03	1.02	2.05	.96	2.67 ^a	1.16*
AGE	32.68	6.21	36.55	9.78	30.90	11.30	48.90 ^a	21.20	33.60	11.10*
Minimum N	148		71		23		27		132	

Range of scale values = 1 to 5.

* Difference between means of occupational groups is significant at $\alpha < .05$.

^a Superscripted means are significantly larger ($\alpha < .05$) than the unmarked means for the variable.

The full sample $Q = .43$, $W = 215.04$ ($N = 401$, $\alpha < .05$). The model did not fit the full sample data but did weakly fit both the employee and volunteer data when tested separately. The paid employees' $Q = .20$, $W = 119.14$ ($N = 219$, $\alpha > .05$). The volunteers' $Q = .20$, $W = 59.57$ ($N = 182$, $\alpha > .05$). Path diagrams for the over-identified models are shown in Figure 6 for all subjects, Figure 7 for paid employees, and Figure 8 for volunteers. Path coefficients are included for each path. Appendix E contains a list of standardized beta coefficients used to estimate path coefficients and residuals for all models.

χ^2 is very sensitive to sample size and may lead to the erroneous rejection of a model simply because the sample was large enough to magnify effects. This effect may account partially for the lack of fit found in the total-subject sample. Since W approximates the χ^2 distribution, Pedhazur (1982) and Jöreskog (1974) recommend stronger reliance on the Q when judging the fit of the model or comparative fit between two or more alternative models. Table 3 shows the number of subjects, Q , and W for each sample. Q is small for each test, indicating that goodness-of-fit is marginal and that the larger sample size associated with the entire sample was sufficient to show significant lack of fit.

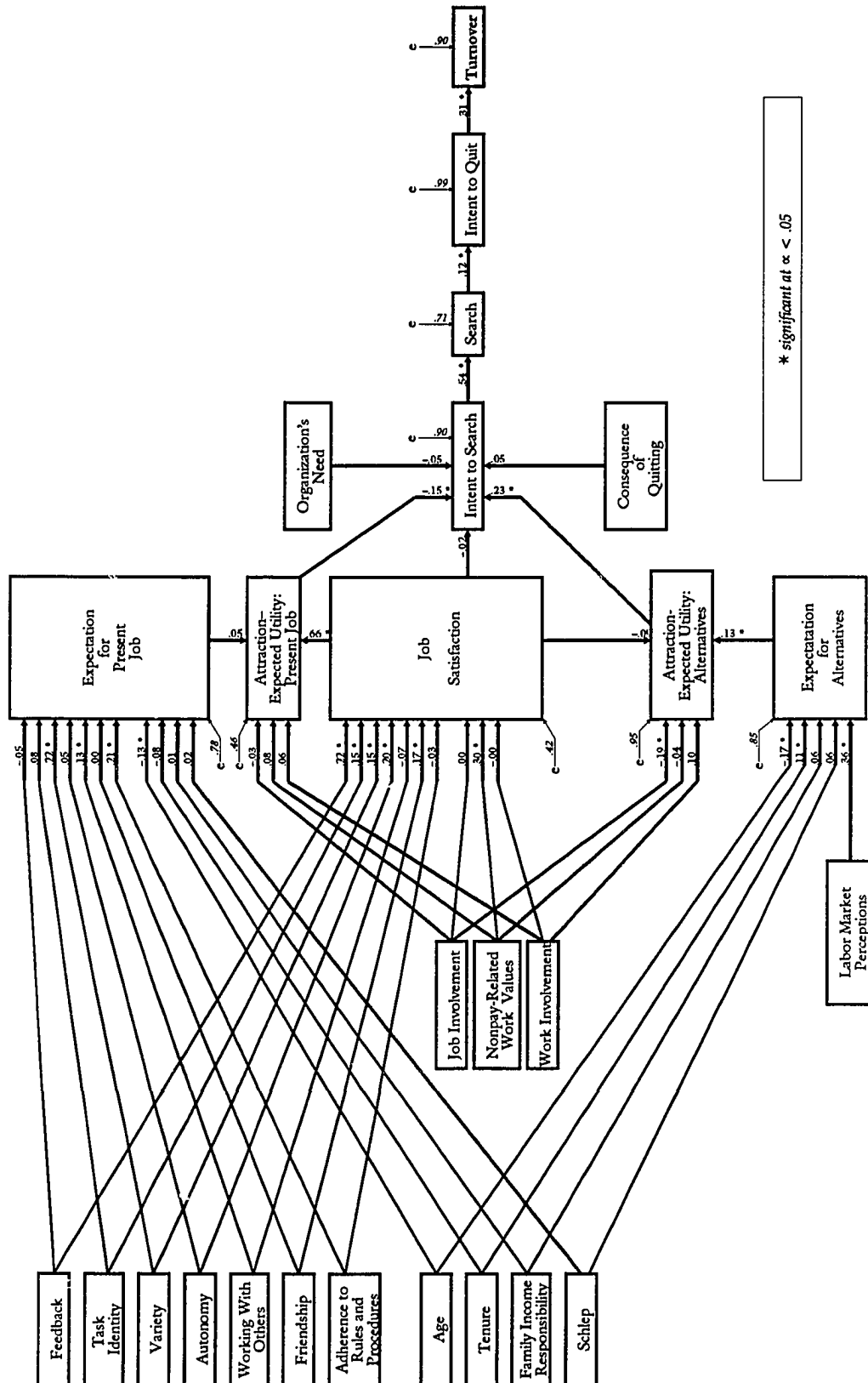


Figure 6. Path diagram of the Mobley, Griffith, Hand, & Meglino (1979) model with all employees (minimum pairwise $N = 401$).

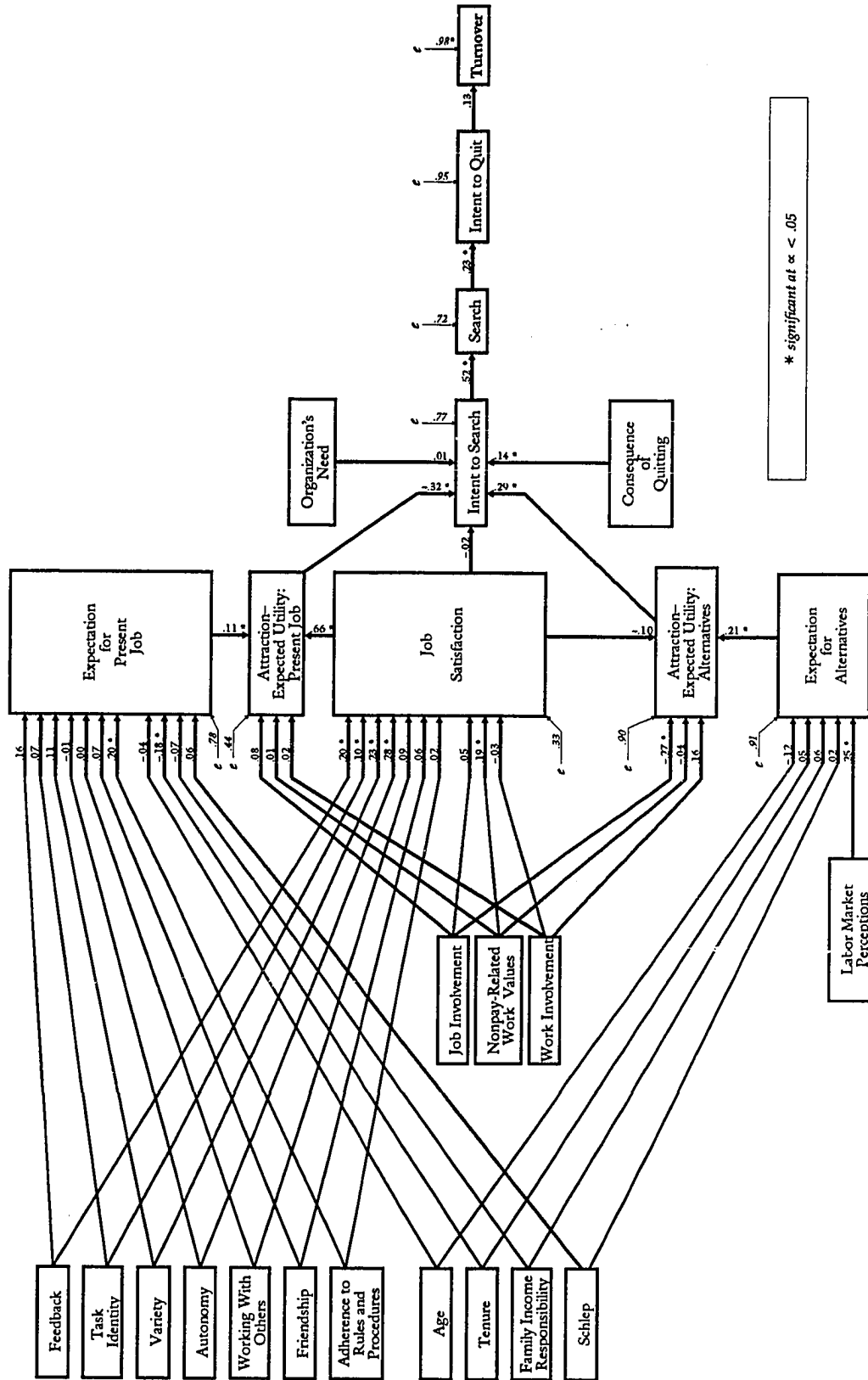


Figure 7. Path diagram of the Mobley, Griffith, Hand, & Meglino (1979) model with paid employees (minimum pairwise $N = 219$).

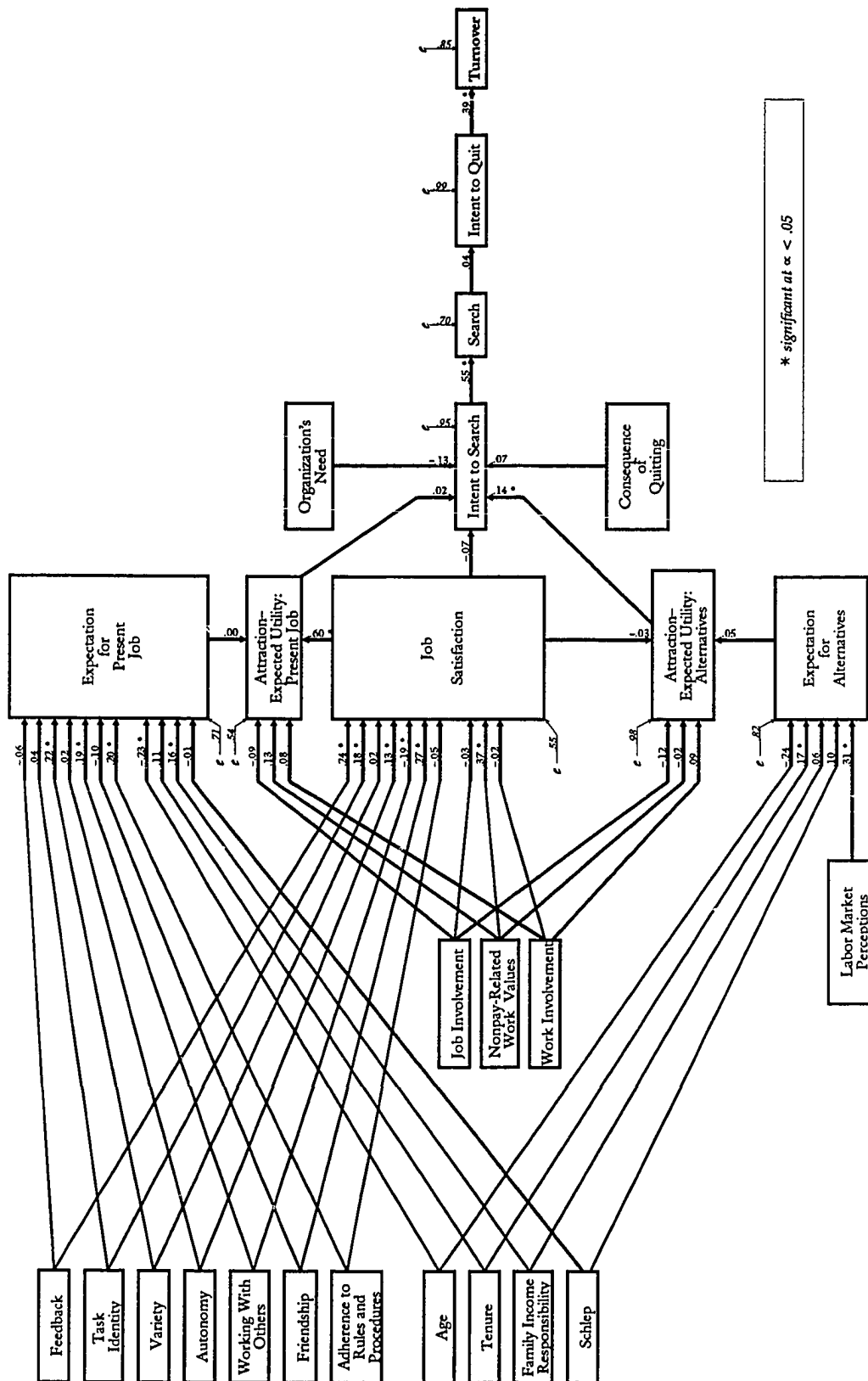


Figure 8. Path diagram of the Mobley, Griffeth, Hand, & Meglino (1979) model with volunteer employees (minimum pairwise $N = .182$).

The augmented Mobley model. This modification of the Mobley model entailed the addition of two affective variables, *Organizational Commitment* and *Intent to Alter Involvement*. Specht's goodness-of-fit test was again applied to the full sample and the paid worker data. Q was calculated for the volunteer data, but W could not be computed since d was greater than the number of subjects. That is, the model was under-identified and the fit of the model could not be tested. The critical score for rejection of fit of the augmented Mobley model for the all-subjects and paid-worker samples is $W \geq 227.42, (df = 194)$.

The full sample $Q = .10$, $W = 480.06$ ($N = 401$, $\alpha < .05$). The model did not fit the full sample data but did weakly fit the paid employee data. The paid employees' $Q = .05$, $W = 76.11$ ($N = 219$, $\alpha > .05$). The volunteers' $Q = .05$ ($N = 182$). Path diagrams for the over-identified models are shown in Figure 9 for all subjects, Figure 10 for paid employees, and Figure 11 for volunteers. Path coefficients are included for each path.

The trimmed model. It can be seen that neither the original Mobley et al. (1979) model nor the augmented model (which included *Organizational Commitment* and *Intent to Alter Involvement*) fits the obtained data very well. In order to account for the observed data in a more parsimonious fashion and to provide guidance for future research, the augmented model was trimmed to obtain the best fit with the data from the three subject groupings. These additions led to a reduction in the number of variables required in the model and in the relationships among the variables, producing a more parsimonious model as well as one that yields higher goodness-of-fit indices.

The trimmed model was applied to the whole data set, to just the paid employees, and, finally, to the volunteer employees. The critical score for rejection of fit for the trimmed model is $W \geq 54.452$ ($df = 39$). The full sample $Q = .91$, $W = 35.82$ ($N = 401$, $\alpha > .05$). The paid employees' $Q = .77$, $W = 45.89$ ($N = 219$, $\alpha > .05$). The volunteers' $Q = .80$, $W = 31.44$ ($N = 182$, $\alpha > .05$). W was less than

the critical score for each of the samples; the trimmed model fit the data in each case. Furthermore, the Q for each of the trimmed model tests-of-fit was larger than any of the Q scores provided by the Mobley model. The goodness-of-fit provided by the trimmed model was better than that of the Mobley model for volunteers, paid employees and the full sample. These comparisons are shown in Table 4. Separate path diagrams for the trimmed model are shown in Figure 12 (full sample), Figure 13 (paid employees) and Figure 14 (volunteers).

Table 4

Comparison of Goodness-of-Fit Indices for the Mobley and the Trimmed Models of Disengagement

<i>Model</i>	<i>All Subjects (N=401)</i>			<i>Paid Employees (N=219)</i>			<i>Volunteers (N=182)</i>		
	<i>Q</i>	<i>W</i>	<i>CS*</i>	<i>Q</i>	<i>W</i>	<i>CS*</i>	<i>Q</i>	<i>W</i>	<i>CS*</i>
Mobley	.43	227.03*	173.68	.20	135.19	173.68	.20	32.58	173.68
Augmented	.10	480.06*	227.42	.05	76.11	227.42	.05	#	227.42
Trimmed	.91	35.82	54.45	.77	45.89	54.45	.80	31.44	54.45

* Goodness-of-fit is rejected if obtained W exceeds critical score (CS)

W cannot be computed because $d > N$

Table 5 presents a comparison of the residuals associated with each endogenous variable by group and model. All but one of the dependent variables in the trimmed model have smaller residuals than those provided by the Mobley model, revealing a better fit to the data than that provided by the Mobley model despite substantially fewer predictor variables being used. The residual score for *Job Satisfaction* for paid employees is the same in each model. The residual scores for the trimmed model are smaller than for the augmented model also, except for *Organizational Commitment* for paid employees. This fit takes advantage of specific sample characteristics, however, and can be expected to be reduced in cross-validation attempts.

Table 5

Comparison of Residuals by Model and by Group

	<i>Mobley Model</i>			<i>Augmented Model</i>			<i>Trimmed Model</i>		
	<i>All</i>	<i>Paid</i>	<i>Vol</i>	<i>All</i>	<i>Paid</i>	<i>Vol</i>	<i>All</i>	<i>Paid</i>	<i>Vol</i>
Turnover	.90	.98	.85	.90	.98	.85	.84	.97	.78
Intent to Quit	.99	.95	.99	.99	.95	.99	.79	.84	.72
Search	.71	.72	.70	.71	.72	.70	—	—	—
Intent to Search	.90	.77	.95	.97	.97	.97	—	—	—
Intent to Alter Involvement	—	—	—	.88	.83	.89	.82	.79	.74
Attraction-Expected Utility:									
Present Job	.46	.44	.54	.57	.55	.67	.41	.39	.48
Expectation for Present Job	.78	.78	.71	.78	.88	.71	—	—	—
Attraction-Expected Utility:									
Alternatives	.95	.90	.98	.93	.85	.98	—	—	—
Expectation for Alternatives	.85	.91	.82	.85	.91	.82	—	—	—
Job Satisfaction	.42	.33	.55	.62	.65	.69	.38	.33	.51
Organizational Commitment	—	—	—	.52	.48	.61	.50	.50	.62

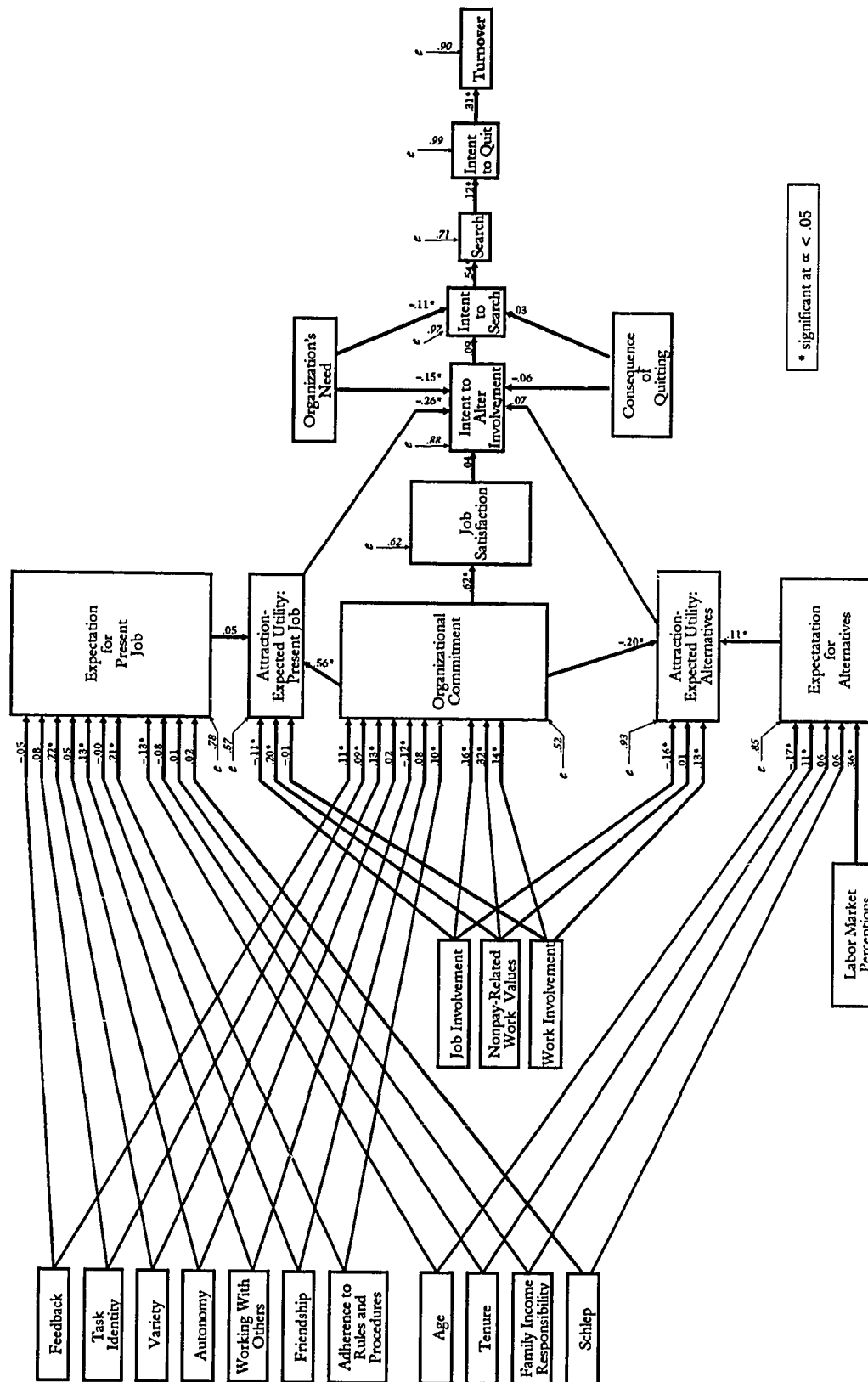


Figure 9. A path diagram of the augmented disengagement model for all subjects. (minimum pairwise $N=401$)

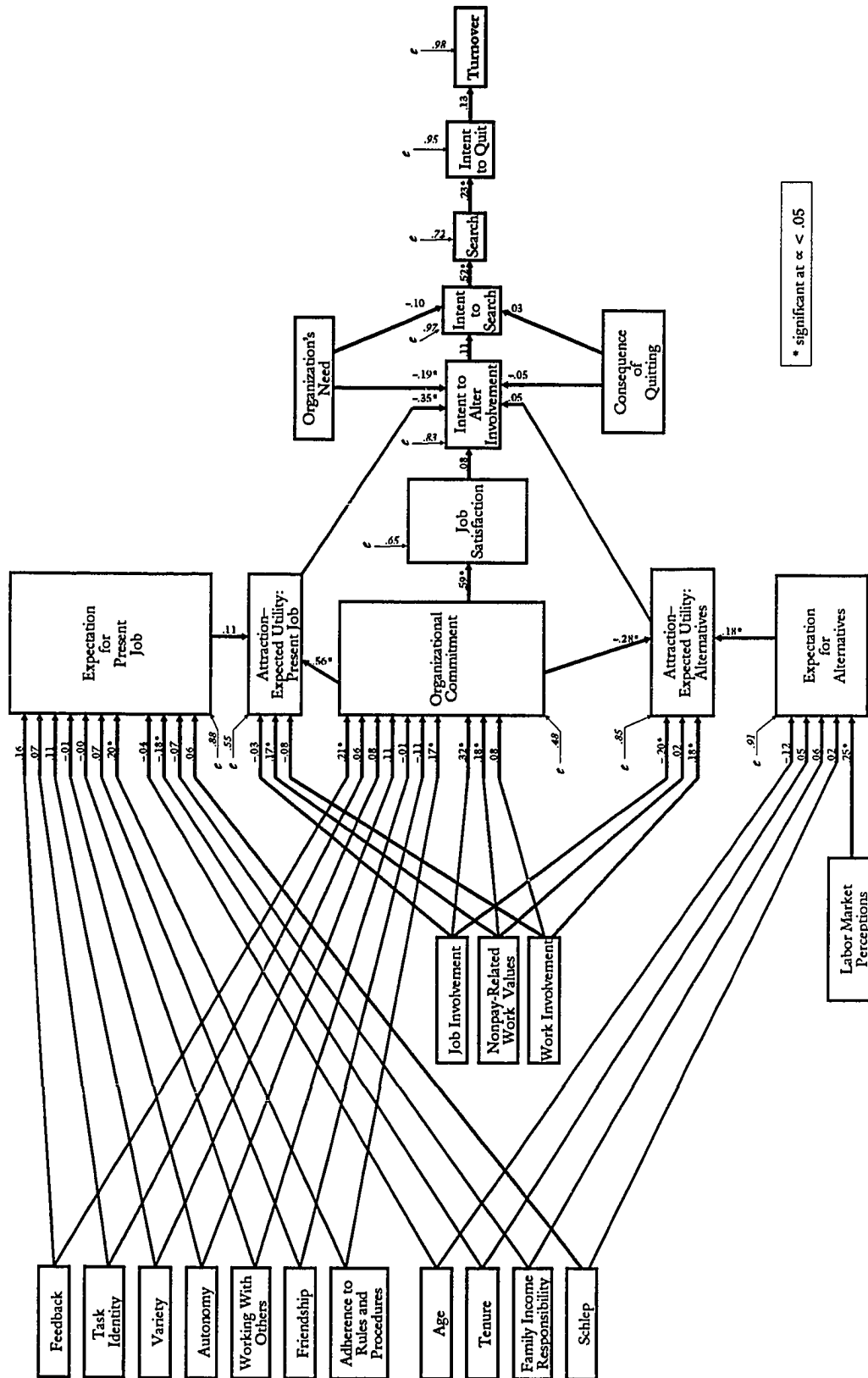


Figure 10. A path diagram of the augmented disengagement model for paid subjects. (minimum pairwise $N = 219$)

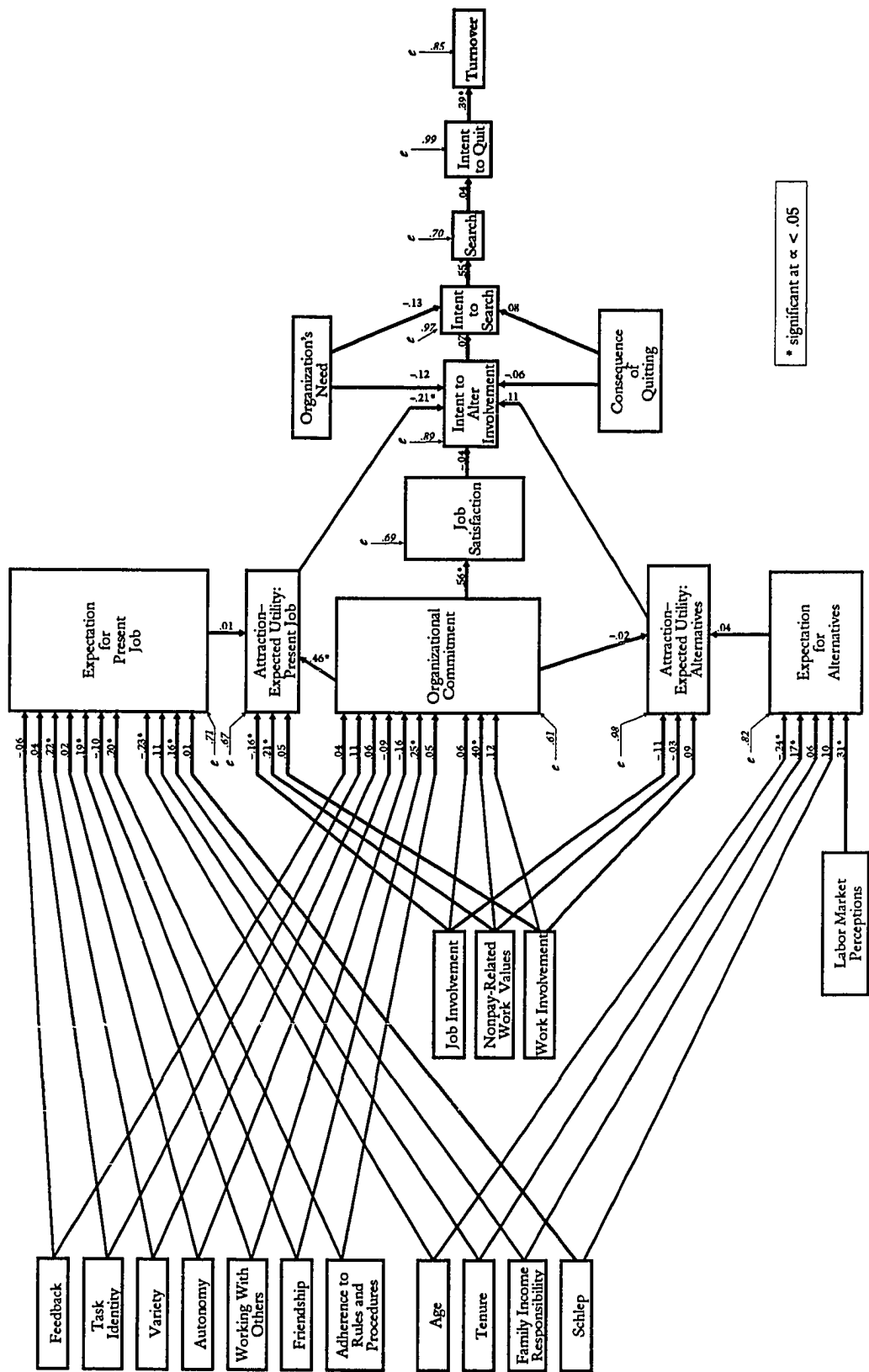


Figure 11. A path diagram of the augmented disengagement model for volunteer subjects. (minimum pairwise N=182)

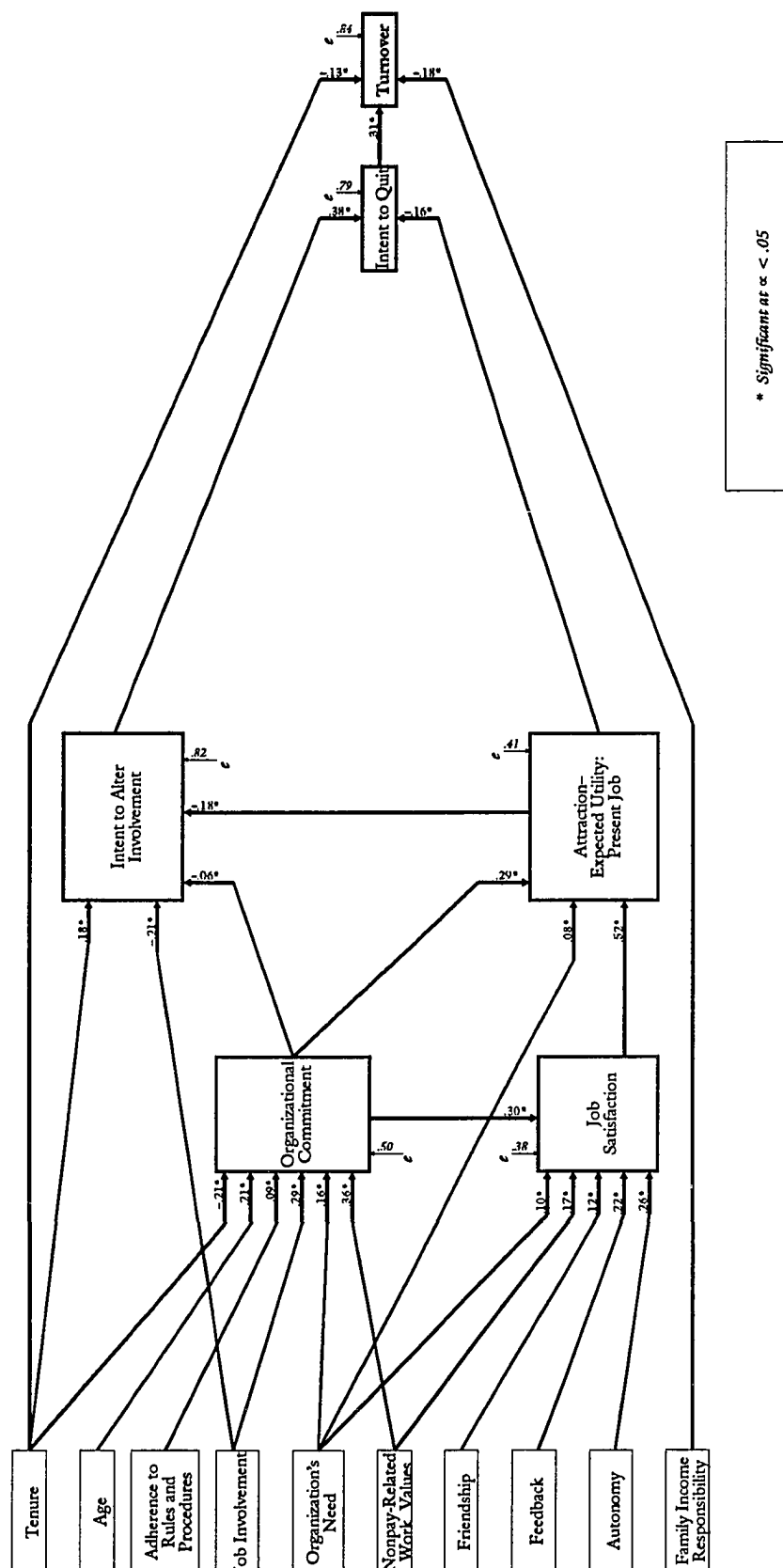


Figure 12. Path diagram for the Trimmed Model using the full sample (Minimum N after pairwise deletion = 401).

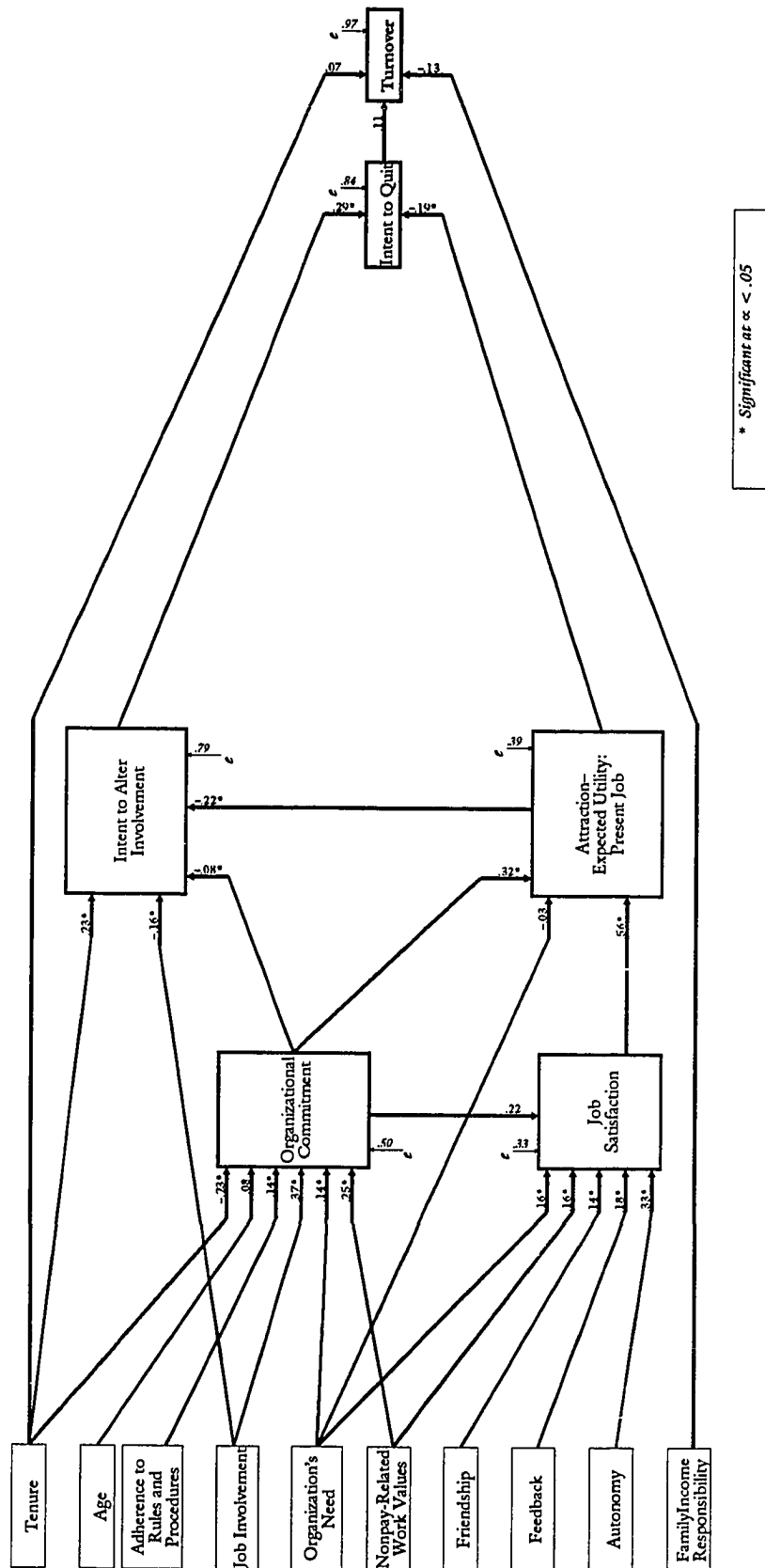


Figure 13. Path diagram for the Trimmed Model using paid employees (Minimum N after pairwise deletion = 219).

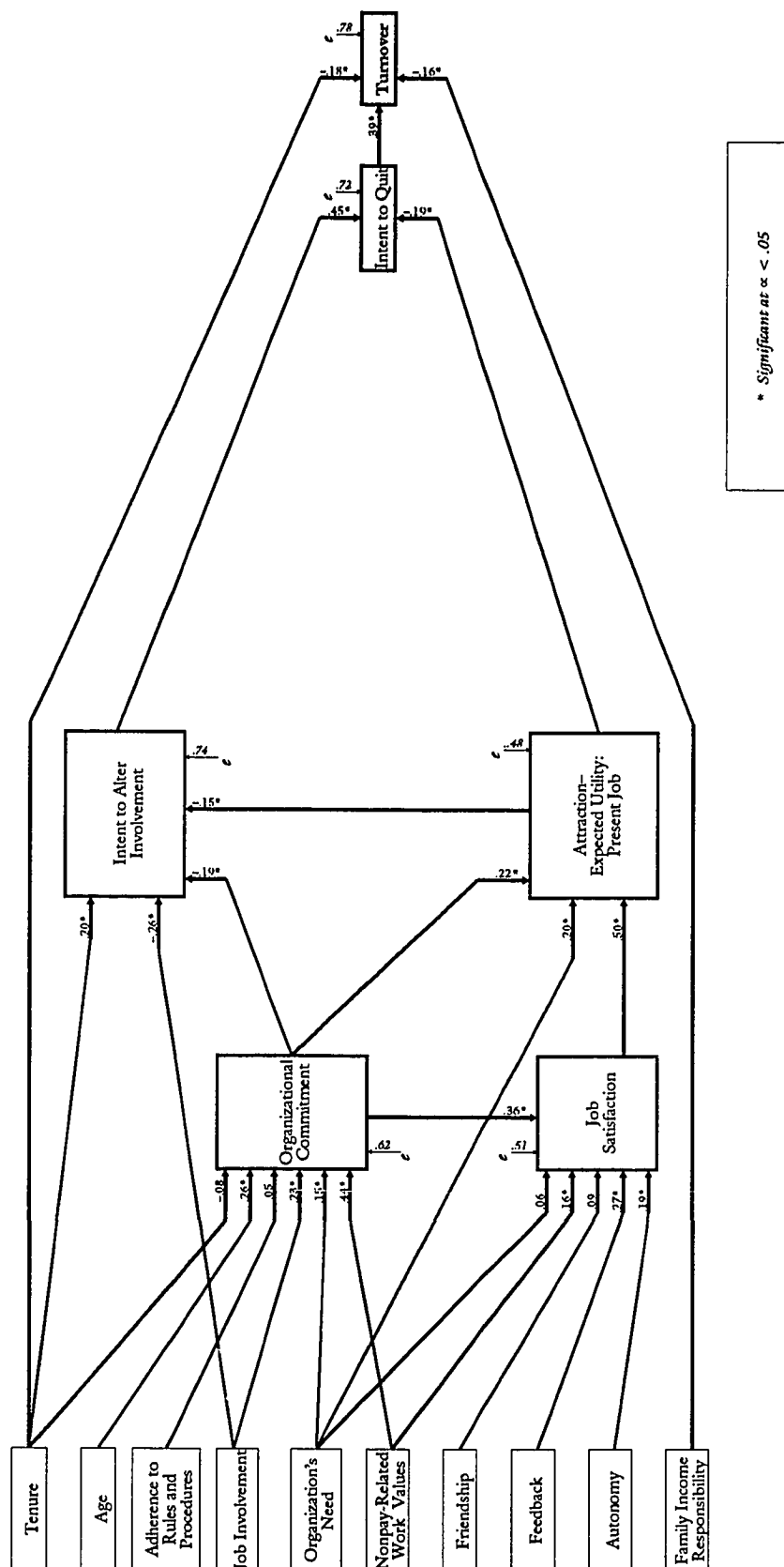


Figure 14. Path diagram for the Trimmed Model using volunteer employees (Minimum N after pairwise deletion = 182).

Analyses of the significance of specific paths. Since this study focuses on how volunteers and paid workers are alike and different in the paths that lead them to disengagement, the beta coefficients that differed substantially for paid and volunteer workers are shown in Table 6 for the Mobley model, Table 7 for the augmented model and Table 8 for the trimmed model. The only paths included in these tables are those with significant path coefficients for one of the samples but not for the other.

Table 6				
<u>Differing path coefficients for paid and volunteer worker samples using the Mobley model</u>				
<i>From</i>	Path	<i>To</i>	<i>Paid</i>	<i>Volunteer</i>
Intent to Quit		Turnover	.13	.39*
Search		Intent to quit	.23*	.04
Consequence of Quitting		Intent to Search	.14*	.07
Attraction-Expected Utility: Present Job		Intent to Search	-.32*	.02
Expectation for Present Job		Attraction -Expected Utility: Present Job	.11*	.00
Age		Expectation for Present Job	-.04	-.23*
Tenure		Expectation for Present Job	-.18*	.11
Family Income Responsibility		Expectation for Present Job	-.07	.16*
Variety		Expectation for Present Job	.11	.22*
Working With Others		Expectation for Present Job	.00	.19*
Job Involvement		Attraction-Expected Utility: Alternatives	-.27*	-.12
Expectation for Alternatives		Attraction-Expected Utility: Alternatives	.21*	.05
Tenure		Expectation for Alternatives	.05	.17*
Working with Others		Job Satisfaction	.09	-.19*
Variety		Job Satisfaction	.23*	.02
Friendship		Job Satisfaction	.06	.27*

* significant at $\alpha < .05$

Table 7

Differing path coefficients for paid and volunteer worker samples using the augmented model

<i>From</i>	<i>Path</i>	<i>To</i>	<i>Paid</i>	<i>Volunteer</i>
Intent to Quit		Turnover	.13	.39*
Search		Intent to Quit	.23*	.04
Organization's Need		Intent to Alter Involvement	-.19*	-.12
Job Involvement		Attraction-Expected Utility: Present Job	-.03	-.16*
Age		Expectation for Present Job	-.04	-.23*
Tenure		Expectation for Present Job	-.18*	.11
Family Income Responsibility		Expectation for Present Job	-.07	.16*
Variety		Expectation for Present Job	.11	.22*
Working with Others		Expectation for Present Job	-.00	.19*
Job Involvement		Attraction-Expected Utility: Alternatives	-.20*	-.11
Work Involvement		Attraction-Expected Utility: Alternatives	.18*	.09
Expectation for Alternatives		Attraction-Expected Utility: Alternatives	.18*	.04
Organizational Commitment		Attraction-Expected Utility: Alternatives	-.28*	-.02
Age		Expectation for Alternative	-.12	-.24*
Working with Others		Organizational Commitment	-.01	-.16*
Feedback		Organizational Commitment	.21*	.04
Friendship		Organizational Commitment	-.11	.25*
Job Involvement		Organizational Commitment	.32*	.06
Adherence to Rules and Procedures		Organizational Commitment	.17*	.05

* significant at $\alpha < .05$

Table 8

Differing path coefficients for paid and volunteer worker samples using the trimmed model

<i>From</i>	<i>Path</i>	<i>To</i>	<i>Paid</i>	<i>Volunteer</i>
Intent to Quit		Turnover	.11	.39*
Tenure		Turnover	.07	-.18*
Family Income Responsibility		Turnover	-.13	-.16*
Organizational Commitment		Intent to Alter Involvement	-.08	-.19*
Organization's Need		Attraction-Expected Utility: Present Job	-.03	.20*
Friendship		Job Satisfaction	.14*	.09
Age		Organizational Commitment	-.08	.26*
Tenure		Organizational Commitment	-.23*	-.08
Adherence to Rules and Procedures		Organizational Commitment	.14*	.05

* significant at $\alpha < .05$

Discussion

The Mobley Model

The Mobley model and the entire subject sample. The Mobley model did not fit the data when all the subjects were analyzed together. It did, however, marginally fit both the volunteer sample and the paid worker sample, accounting for a greater proportion of variance in turnover among the volunteers than among the paid workers. Using *Intent to Quit* as the criterion, the amount of variance accounted for was almost the same in both samples.

The Mobley model entailed 44 paths among 26 variables. In the full-sample analysis, twenty-one of these path coefficients were significantly greater than zero. As predicted, the paths from *Intent to Quit* to *Turnover* and *Intent to Search* to *Search* were significant. These data confirm some of the key relationships proposed by Mobley et al. (1979) for the final steps of the model. However, Mobley et al. (1979) also proposed that *Job Satisfaction* would be directly linked with the disengagement variables, but the path between *Job Satisfaction* and *Intent to Search* was not significant. In addition, the mediating factors that Mobley proposed as affecting disengagement (*Consequence of Quitting* to others and *Organization's Need* for the worker's skills) were not significant when linked to *Search*.

While Mobley et al. (1979) predicted that both the *Expectation* variables would lead to their respective *Attraction* variables, only *Expectations for Alternatives* did so. Mobley et al. (1979) also predicted a significant relationship among *Job Satisfaction*, the *Attraction* variables and the disengagement variables; however, *Job Satisfaction's* only significant path was to *Attraction—Expected Utility: Present Job*.

The values variables should have influenced *Job Satisfaction* and both of the *Attraction* variables directly. Only the *Job Involvement* to *Attraction—expected Utility: Alternatives* (negative relationship) and the *Nonpay-Related Work Values* to *Job Satisfac-*

tion paths were significant. Job-related perceptions should have affected both *Job Satisfaction* and *Expectations for Present Job* directly. Some of the scales of the Job Characteristics Inventory did meet those expectations, but not all of them. *Variety* and *Working with Others* generated significant paths to *Expectations for the Present Job* while all the Job Characteristics Inventory scales except *Working with Others* produced significant path coefficients for *Job Satisfaction*. This matches the findings of Caldwell and O'Reilly (1982) and Moch (1980) who found significant relationships between *Job Satisfaction* and *Task Identity*, *Variety*, *Feedback*, and *Autonomy*.

The path coefficient from *Adherence to Rules and Procedures* to *Expectations for the Present Job* was significantly different from zero but the one to *Job Satisfaction* was not. Discussion with city officials gave informal credence to the workers' valuing both *Autonomy* and *Adherence to Rules and Procedures*. Since both the rescue workers and the firefighters work in situations where their actions could endanger the lives of others, rules and procedures give them legal and emotional protection from charges of improper behavior should their actions make them liable for life or property. Rules, then, are not resented, and the worker is free to predict that his promotions will reflect his adherence to the rule structure. *Autonomy*, on the other hand, has little effect on job expectations defined in terms of promotion potential, but does have a significant effect on satisfaction with the job.

While some of the important relationships in the Mobley et al. (1979) model have been confirmed, particularly those involving the disengagement variables, there are places where the model clearly does not fit the data. The mediating effects of *Consequences of Quitting*, for instance, was not significant in the total sample but was for the paid workers. Apparently, the noneconomic motives of the volunteers masked this effect in the total analysis. This is one example of why a complete understanding of disengagement requires that the path patterns of the two subsamples be analyzed separately.

Comparison of path coefficients for volunteer and paid workers. Both groups produced significant path coefficients from *Intent to Search* to *Search*, from *Job Satisfaction* to the *Attraction—Expected Utility: Present Job*, and from *Adherence to Rules and Procedures* to *Expectations for the Present Job*. *Labor Market Perceptions* in the form of beliefs about the availability of other jobs or activities was significantly related to *Expectations for Alternatives* in both groups. *Autonomy*, *Task Identity*, *Feedback* and *Nonpay-Related Work Values* all had significant path coefficients with *Job Satisfaction* for both paid and volunteer workers.

The two groups were also similar in some of the nonsignificant path coefficients they produced. Neither group linked *Job Satisfaction* or *Attraction—Expected Utility: Present Job* to *Planning to Search*. Neither group had significant paths from *Work Involvement* or *Job Involvement* to *Attraction—Expected Utility: Present Job*, and *Expectations for the Present Job* were unaffected in both groups by *Schlep* (caregiving for others) and the job characteristics perceptions of *Task Identity*, *Feedback*, *Friendship*, and *Autonomy*. *Work Involvement*, *Nonpay-Related Work Values*, and *Job Satisfaction* failed to relate significantly to *Attraction—Expected Utility: Alternatives* in either group despite the key roles values and satisfaction play in the Mobley et al. (1979) model.

There were also differences between the two groups in the path coefficients they produced. *Intent to Quit* was not predictive of *Turnover* in the paid employee groups, but was significantly linked to it in the volunteer group. This may reflect the drastic differences in turnover rates in the two groups, but it also fits some of the findings in other researchers' work which suggests that the linkages between turnover and its immediate precursors are complex. Hom, Griffeth & Sellar, 1984, for instance, showed only indirect effects. They reiterate the Steers & Mowday (1981) comment that some employees quit even when there are no alternative jobs. They also note that in a healthy job market, employees may quit without searching ahead of time because

they know that they will be able to find another job. This effect of job security may be paralleled in my study in the volunteers' results.

Search did not lead to *Intent to Quit* for the volunteers, although it did for the paid workers. The differences in the two groups in the determinants of *Intent to Search* involve the roles of *Consequence of Quitting* for significant others and the *Organization's Needs* for the worker's skills, both of which were nonsignificant for the volunteers. *Attraction—Expected Utility: Alternatives* produced a significant path to *Intent to Search* for volunteers, but not for paid workers. This set of differences probably reflects a different dynamic process in the two groups. The paid worker must consider the impact of his or her actions on others when the main economic activity is under consideration. For career reasons he or she must also consider the ramifications of leaving if the organization truly needs him or her. Letters of reference would be hard to get if the worker left the organization in the lurch. These factors are less likely to tie a volunteer to the job. On the other hand, the lure of the alternative can loom larger for the volunteers for a number of reasons. First of all, the scope of the activity is generally smaller than for the paid worker, and for many volunteers, the investment in training is not so large as to pin him or her to one type of activity only. The costs of quitting may be a factor for paid employees (Baysinger & Mobley, 1982) but less so for the volunteer. Finally, there will be a larger variety of activities for the volunteer than for the paid worker. These factors may be reflected in the different roles that the determinants of *Intent to Search* play in the two groups.

Nonpay-Related Work Values and *Expectations for the Present Job* have different effects on the *Attraction—Expected Utility: Present Job* in the two groups. *Expectations about the Present Job* reflects possibilities associated with promotion and added responsibility. This determines *Attraction—Expected Utility: Present Job* to a significant degree for the paid workers but not for the volunteers. Interviews with volunteer firefighters and rescue workers indicated that many of them wished to limit their involvement;

while they enjoyed the work, they had no desire to be professionals or take on added responsibilities that would interfere with the other aspects of their lives. The commander of one rescue unit had been deeply involved in volunteer rescue work for 20 years, but cited the personal cost: because of his volunteer activities, he had not used his off-work time to get the education he needed to make him competitive in the job market when he retired from the Navy. Such considerations reduce the importance of advancement and development in the affective response to an organization for volunteers. On the other hand, *Nonpay-Related Work Values* were significant determinants of *Attraction—Expected Utility: Present Job* for volunteers but not for paid workers, suggesting that intrinsic values may carry more weight for them than for paid workers.

Two differences in determinants of *Expectations for the Present Job* characterized the two categories of worker. *Variety* was a nonsignificant factor for paid workers but was significant for volunteers. Since the expectancy here had to do with promotion and added responsibility, it may be that the norm for the successful volunteer is flexibility and the ability to be a generalist while that characteristic may be less important for the paid worker in the specialized jobs that were under consideration in this study. *Working with Others* significantly predicted *Expectations for the Present Job* for volunteers but not for paid workers. This may reflect the large number of rescue workers, all volunteers, and all of whom must deal with the public on a one-to-one basis. In fact, the mean *Working with Others* score and *Expectations for the Present Job* score are both highest for the rescue workers. The paid and volunteer firefighters had almost identical mean scores on the *Working with Others* variable, scoring well above the two librarian groups. On the other hand, the paid firefighters had a relatively low mean score for *Expectations for the Present Job*. This suggests that although the rescue workers and the paid firefighters are both engaged in emergency work involving the saving of lives and dealing with others, the two work groups derive their advancement expectations from different aspects of their work. Job advancement expectancies

would therefore have to take into consideration how well the volunteer rescue worker handles people but the paid firefighter's advancement would be based more on his mastery of advanced firefighting techniques and the handling of events.

Reduced *Job Involvement* and *Expectations for Alternatives* led significantly to *Attraction—Expected Utility: Alternatives* for paid workers but not for volunteers. The residual for this variable was the second highest of all of the Mobley outcomes for volunteers. It is apparent that whatever makes alternatives attractive for volunteers was not represented by this model. While not quite so high for paid workers, the residual indicates that the two significant predictors of the *Attraction—Expected Utility: Alternatives* are not the only causative factors. In fact, reduced *Job Involvement* in the present job might simply be the complement of increased interest in the alternative, rather than a pre-existing determinant. The role of *Expectations for Alternatives* may reflect the impulsivity that Mobley describes (Mobley et al., 1979). For the volunteer, there does not need to be a belief that alternatives exist and are available; he or she can simply leave. The paid worker needs at least to know that there is a possibility of finding another job, even if the particular job has not been searched out. Curiously, tenure and age play no role in determining paid workers' *Expectations for Alternatives* but they do produce significant paths for volunteers.

Both younger and more tenured volunteers had higher expectancies about alternatives. Hom, Griffeth and Sellaro (1984) describe the chronic difficulties most researchers have had with this outcome variable. The problem seems to stem from the broad, generalized character of the domain assessed. Specific alternatives are seldom designated. Instead, respondents are left free to define for themselves the activities they have in mind. This means that in my study younger volunteers could have been thinking about an entirely different category of expectancies than the older volunteers and more tenured workers. Furthermore, the alternatives whose availability was being

considered would be quite different for paid and volunteer workers. The variable and its few predictors seems less than useful in the model.

The final outcome variable in the model is *Job Satisfaction*. Volunteers and paid workers were fairly similar in their paths. Their differences lay in *Variety*, *Working with Others*, and *Friendship*. Examination of the mean scores of each of the five groups for these variables shows that they ranked the same way for each variable with rescue, then volunteer firefighters giving the highest mean scores, paid firefighters in the middle followed at some distance by the paid and volunteer librarians. There may be a stimulation-seeking element operating with these three variables and future research with these kinds of occupations might be wise to control for such a factor. There appears to be a distinct difference between the paid firefighters and the volunteer firefighters and rescue workers on the *Variety* variable. It is possible that for these two groups of volunteers, the volunteer job adds variety to their everyday life. For the paid worker, however, this job *is* his or her everyday life, and variety must be sought within it; thus *Variety* is significant in determining *Job Satisfaction* only for the paid worker. The role of *Friendship* is important in this model for determining *Job Satisfaction* for the volunteer but not the paid worker. Once again the path coefficients appear to be more heavily influenced by the mean scores of the rescue and firefighting volunteers than the library volunteers. In fact the mean voluntary librarian *Job Satisfaction* scores are the highest of all the groups while their *Variety*, *Working with Others* and *Friendship* scores are the lowest. It is apparent that there are real occupational differences in the determinants of affective responses such as *Job Satisfaction*.

It is obvious that the Mobley et al. (1979) model does not fit these data very well. Over half of the 44 paths in the total sample are nonsignificant. The variables that do lead significantly to the outcomes show an overall linkage that is not conceptually pleasing. The path diagrams for these data do not suggest an integrated system of commitment enhancement. Furthermore, inspection of the residuals produced by

the Mobley et al. (1979) model indicates that for almost all of the dependent variables, most of the variance stems from sources not in the equations.

While the model fosters measurement problems through its lack of specificity in operationalization of the constructs, as Hom, Griffeth, and Sellaro (1984) and Bannister and Griffeth (1986) note, lack of specification of the causal order of variables is also a serious problem. Furthermore, the model is not parsimonious. While Mobley and his colleagues have reduced the number of constructs somewhat as they have developed the series of models, there still is a large number and their individual worth is suspect. Hom, Griffeth and Sellaro (1984), for instance, spend a lot of effort on distinguishing the order of expectancies and behaviors at the disengagement end of the path. While this may be interesting from a cognitive standpoint, it is not particularly useful. As they point out, there are a variety of reasons for variations in intent and search patterns and in their linkages with turnover. Furthermore, disengagement that has proceeded that far may be hard to stop. For the manager, understanding the processes earlier is important if disengagement is to be controlled.

Fit of the Mobley model to paid and volunteer subsamples. The first proposition was that the Mobley et al. (1979) model would fit the volunteer data as well as it did the paid employee data. This was confirmed by the identical Q scores and to the degree that W was nonsignificant for both of them, but a Q of .20 is not impressive. The residuals associated with the specification of the model are important. These reflect the unaccounted for sources of variance affecting the scores associated with any particular construct. Inspection of these residuals indicates that the fit for volunteers closely matches that for the paid workers.

Extraneous factors which may have affected results. One fact that must be taken into account when considering the meaning of these results is that there were only seven quits for the paid workers and forty for the volunteers. The greater ease with which volunteers quit is not surprising since this is a secondary career for them.

Nonetheless, this turnover pattern made analysis of the end point of the path analysis troublesome and forces attention to the more interesting patterns of responses deeper in the model.

The Augmented Model

The overall fit of the augmented model. The Mobley model augmented with *Organizational Commitment* and *Intent to Alter Involvement* did not fit the data. The Q scores for all three samples were extremely low. Because of the increase in the number of variables used, slightly more variance in *Turnover* is accounted for by this model than by the other two, but the increase is offset by the increase in df . This was an interim model. Clearly, addition of the two variables without adjustment of the other variables simply added error variance to the model. It is also clear, however, that the presence of the two variables changed the impact of the others. This led to trimming of the model through removal of nonsignificant paths and some rearrangement of relationships. Mobley (1982) speculated about the addition of *Organizational Commitment* to the model. It is evident that its addition is not helpful in this particular model. *Intent to Alter Involvement* was added as a logical extension of the cognitive processing proposed by Mobley in his various models. It also fails to enhance the original model.

The Trimmed Model

The overall fit of the trimmed model. The goodness-of-fit index Q is far higher for each of the three samples (all, paid, and volunteer) when the analysis is based on the trimmed model. In addition, the model fit the entire subject sample as well as the two subsamples, W was nonsignificant in each case. The highest Q score is .91 for the entire sample. The lowest trimmed model score, .77, is associated with the paid group. The volunteer Q of .80 is a little stronger. By comparison, the highest Mobley model Q score was .43 for the entire group, followed by .20 for the two subgroups. Furthermore, the volunteer group's data were handled very well by this model, comparing favorably with the paid workers'.

Trimming the model. The trimmed model was constructed by adding two parameters as well as by trimming paths with nonsignificant path coefficients. The addition of *Intent to Alter Involvement Level* and *Organizational Commitment* altered the path coefficients considerably as the constituent factors of the related constructs were more precisely addressed. As noted previously, commitment was included because many authors, including Mobley (Mobley, 1982; Mobley et al., 1979) debated about its potential contribution to a disengagement model. The *Intent to Alter Involvement Level* in an organization appeared to be a logical intermediate step between the affective responses and the “attitudes towards the behavior” responses of *Intent to Search* and *Intent to Quit*. The intent to alter involvement is an emotional disengagement process linking affective change to the cognitive process of deciding to take action.

One effect of the addition of *Intent to Alter Involvement* is the subsequent reduction in residual variance in *Intent to Quit* and *Turnover* in the trimmed model. This cannot be attributed to the new variable alone since the *Search* and *Intent to Search* variables were also removed.

Organizational Commitment led to a similar reduction in residual variance in *Job Satisfaction* and the subsequent variables in the model. Once again this greater efficiency was associated, not only with the addition of the new variable, but also with the elimination of other variables which seemed extraneous once it was included.

Six dependent variables remained in the model: *Turnover*, *Intent to Quit*, *Intent to Alter Involvement*, *Attraction—Expected Utility: Present Job*, *Job Satisfaction* and *Organizational Commitment*. Ten more predictors were added to these as predictors. Four were perceptions of the job (*Friendship*, *Feedback*, *Autonomy* and *Adherence to Rules and Procedures*). Two were values (*Nonpay-Related Work Values* and *Job Involvement*). Two were mediator variables in the Mobley model (*Organization's Need for the worker's skills* and *Family Income Responsibility*). The final two were *Tenure* and *Age*.

One thing became graphically clear when the paths were trimmed from the Mobley model: relationships change drastically when the effects of mediating variables are altered. For example, *Friendship* no longer was a significant determinant of *Job Satisfaction* for volunteers in the trimmed model while it became significant for the paid subjects.

Tenure, *Income Responsibility* and *Intent to Quit* are the three direct determinants of *Turnover* in this model, accounting for just over three percent of the variance in quitting for the paid workers and over twenty-two percent for the volunteers. Although Price (1977) and Motowidlo (1983) reported that bivariate tests had shown a strong relationship between *Tenure* and *Turnover*, multivariate tests found that either *Tenure* had no effect on *Turnover* once the effects of *Age* were removed (MacKay et al., 1971), or no effect at all (Hom & Hulin, 1981; Michaels & Spector, 1982). In this study, examination of the hierarchical regression of all variables on *Turnover* showed a nonsignificant effect from *Age* in all three samples and significant influence from *Tenure* in the volunteer sample and the entire sample. This indicates that *Tenure* operates independently from *Age* in determining *Turnover*. The lack of influence by *Age* confirms similar findings reported by Rhodes (1983).

Intent to Quit is directly affected by *Intent to Alter Involvement* and *Attraction—Expected Utility: Present Job*. The latter relationship confirms the Mobley et al. (1979) proposal; the path coefficients are nearly identical for both the paid workers and the volunteers. The lack of relationship between *Organizational Commitment* and *Intent to Quit* in all three analyses replicates the finding of Hom and Hulin (1981) concerning the role of *Organizational Commitment* when *Intent to Quit* is removed as one of the scale items. *Intent to Alter Involvement* had a far stronger effect on volunteers than on paid workers. Analysis of the determinants of *Intent to Alter Involvement* and *Attraction—Expected Utility: Present Job* may clarify the reasons for this difference.

Three factors for paid workers and four for volunteers significantly determined *Intent to Alter Involvement*. *Tenure*, *Job Involvement*, and the *Attraction—Expected Utility: Present Job* were significant with both groups' data. *Organizational Commitment* also affected *Intent to Alter Involvement* for the volunteers. *Tenure* played a similar role for both groups, but the path coefficient from *Attraction—Expected Utility: Present Job* was stronger for paid workers and *Job Involvement* was correspondingly more of a determinant for volunteers.

The *Organization's Needs* determined *Attraction—Expected Utility: Present Job* to a significant degree for the volunteers but not for the paid workers. This may reflect work values that become more salient as the effects of pay are reduced. *Organizational Commitment* and *Job Satisfaction* produced significant path coefficients to *Attraction—Expected Utility: Present Job* for both groups. In fact the *Job Satisfaction* coefficients are the highest of all the path coefficients in all three analyses. *Organizational Commitment* and *Job Satisfaction* play a more exclusive role in determining paid workers' attitudes toward the *Attraction—Expected Utility: Present Job* but, in absolute terms, *Job Satisfaction's* importance is about the same for both groups, while *Organizational Commitment* carries somewhat less weight for volunteers.

Job Satisfaction is significantly determined by six factors in the paid group and by only four in the volunteers. *Organizational Commitment* plays a stronger role in volunteers' *Job Satisfaction* than it does for the paid workers, although the path coefficients are significant for both. *Nonpay-Related Work Values* significantly affects *Job Satisfaction* for both groups and to about the same degree. *Autonomy* and *Feedback* are significant determinants of *Job Satisfaction* for both groups, but *Autonomy* is more important for paid workers while *Feedback* is more salient for volunteers. The mean *Autonomy* score is significantly higher for volunteers than it is for paid workers, while the differences in mean *Feedback* scores are not significant for the two groups. In addition to the tighter organizational control that generally is exerted over the activities

of paid workers, these differences may reflect the more fragmented nature of the job for volunteers. Paid workers work continuously, picking up the next day or next shift where they left off. Volunteers, on the other hand, may be shifted around from task to task, particularly in the library. In all departments, other workers will take over the job when the volunteers' shift is done. Without the freedom to see a job through from beginning to end, feedback about how one is currently doing is comparatively more important for the volunteers. Additionally, without experience at one integrated set of tasks in a single identifiable situation, it would be harder for the volunteer to accumulate knowledge of the organization's politics and unwritten policies and to pick up the skills needed to engender self confidence to the degree that autonomy becomes rewarding.

Two additional variables significantly determine *Job Satisfaction* for the paid workers: *Organization's Needs* and *Friendship*. These variables do not have an effect in the volunteer data. *Organization's Needs* for the worker's skills may reflect some of the same conditions that have been used to explain the differences in *Autonomy*. That is, with the expanded experience that comes from daily continuous involvement in a single set of job-related tasks, the paid worker tailors his or her skills to fit exactly the needs of the organization. The volunteer, on the other hand, brings in "generic" skills, which, while valuable, may not fit the organization quite so exactly. Thus a symbiotic relationship develops between the paid worker and the organization wherein the worker is shaped to the organization's needs and in turn may derive enhanced satisfaction from his or her precisely tuned effectiveness. This mutually enhancing experience is less available for the volunteer.

The role of *Friendship* in determining *Job Satisfaction* is reversed in the trimmed model from what it was in the Mobley et al. (1979) model where it affected *Job Satisfaction* for volunteers but not for paid workers. *Friendship* significantly affects *Job Satisfaction* for paid but not for volunteer workers. Given the circumstances of the

firefighters, who made up a large proportion of the paid sample (67.3%), these results make more sense than the findings reported with the Mobley model. Friendship with the people one has to live and work with for 24 hours every three days must be an important factor in *Job Satisfaction*. The fact that *Friendship* plays no role in the path analysis of the volunteers is not surprising since the people they work with change from shift to shift. Working with people they like is one of the elements of *Nonpay-Related Work Values*, and this does play a significant role for volunteers in the affective variables *Job Satisfaction* and *Organizational Commitment* as it does for paid workers. Thus the role of *Friendship* is less direct for volunteers than it is for paid workers.

There are five significant determinants of *Organizational Commitment* for paid and volunteer workers. Three are common to both groups although the weights are different: *Organization's Needs*, *Nonpay-Related Work Values*, and *Job Involvement*. *Adherence to Rules and Procedures* and *Tenure* significantly affect paid workers' *Organizational Commitment* but not that of the volunteers. *Age* has a significant and positive effect on *Organizational Commitment* for volunteers but not paid workers. The path coefficients associated with *Organization's Needs* are just about identical for both groups. *Nonpay-Related Work Values* plays a much stronger role in *Organizational Commitment* for volunteers. The paid worker, working not just at any job, but in his or her chosen career field, has commitment determined somewhat more by involvement in the actual job than the volunteer whose work, while perhaps interesting and engaging, is not so tied to personal identification and issues of self esteem.

The relationship between *Job-Related Work Values* and *Organizational Commitment* is interesting in light of Steers (1984) contention that jobs represent the key mechanism for attaining the organization's goals and thus underlie the *Job Involvement* and *Organizational Commitment* relationship. He continues to comment that a worker can remain uninvolved in task requirements despite being committed to the organization (Steers, 1984). This highlights another aspect of the volunteer's *Job Involvement*

and *Organizational Commitment*. Rescue workers, who comprise the largest proportion of the volunteer sample are often fiercely attached to the local volunteer Emergency Medical Service, an organization which repeatedly wins national and international recognition for its excellence and scope. They are active in soliciting funds and searching for recruits, but these are organizational tasks, not job involvement tasks. Steers' comments could quite easily describe many of the volunteer workers: dutiful, loyal, attached and committed, but not necessarily involved in the job for its own sake.

Tenure's relationship with *Organizational Commitment* is negative and seems to contradict the rationale for the development of a symbiotic relationship between the paid worker and the organization. On the other hand this may reflect differences in the way expectations are met in the two groups. Arnold and Feldman (1982), Hom et al. (1984) and Michaels and Spector (1982) all found a significant relationship between *Met Expectations* and *Organizational Commitment*. Young firefighters joining the force expect a lot of action. All of the firefighters interviewed loved the challenge of the "working fire" and grumbled about paper work and administrative details. Thus with the paid firefighters, the expectations of adventure are soon moderated by the reality of bureaucracy. Furthermore, as the worker becomes more experienced, he or she moves up into more responsible positions that entail even more administrative detail. Eventually the organization shifts from being the source of adventure to the source of a burden of dullness, reducing commitment, or in actuality, reflecting the commitment to two different aspects of the organization.

Comparison of the Three Models

Mobley stressed the need to emphasize all four of the general classes of determinant (economic, organizational, individual, and nonwork); however, this research suggests that the disengagement process may be less complex. Addition of *Organizational Commitment*, while strongly suggested by the research literature, did nothing to enhance Mobley's model. In fact the addition of more variables in the

augmented form of the Mobley model reduced its fit to the data. The trimmed model seems more parsimonious than either the Mobley model or the augmented version. Using the entire sample data as a basis for comparison, the trimmed model employed only six outcome variables and twenty-four paths, all of which were significantly greater than zero. The Mobley et al. (1979) model, on the other hand, required nine outcome variables and forty-four paths, of which only twenty-one were significant. The goodness-of-fit indices associated with data from the trimmed model are much higher for both paid workers and volunteers than those derived by the Mobley et al. (1979) model. The trimming process takes advantage of specific sample characteristics, however, and this parsimony may reflect those attributes to a large degree. The trimmed model is only exploratory and until its validity has been tested with other samples, no absolute claims can be made about it.

There is another difference in the two models which may make the trimmed one more useful. As Bannister and Griffeth (1986) point out, the progress to the decision to disengage is probably a gradual and cumulative one, and managerial intervention is likely to be more effective earlier in the model's stages. Once intent to leave is established, plans to search and actual searching behavior have taken place, then the attitude has been made manifest and public and may be unshakable. Indicators of values and affective responses that are known to be distant precursors to disengagement may be more easily acted upon if their importance is understood. Since all the path coefficients leading to *Organizational Commitment*, *Job Satisfaction*, and *Attraction—Expected Utility: Present Job* are significant in the trimmed model and account for more variance in the dependent variables than the comparable set of variables in the Mobley et al. (1979) model, the trimmed model may be more useful for guiding interventions intended to stem turnover. Firmer conclusions regarding the superiority of the trimmed model must await testing with other samples.

Comparisons of Model Fit to Paid and Volunteer Subsamples

One of the major goals of this research was to explore the boundaries of the disengagement model to determine if it could be extended to account for the behavior of volunteer workers as well as paid workers. It has been assumed in the past that the motives of volunteers and the processes affecting their attachments cannot be understood in any systematic manner (Jenner, 1981; Latham & Lichtman, 1984; Smith 1981; Statham & Rhoton, 1985; Tomeh & Chilson, 1981). My research suggests that the cognitive process leading to disengagement among volunteer workers operates according to the same principles as paid workers, although the potency of some of the determinants may differ as a function of the salience of pay-related factors.

Both models analyzed in this research fit both types of workers. The trimmed model fit better for both groups. The better fit of the model to the volunteers probably reflects the low quit rates among the paid workers which reduced the variance in this measure and probably attenuated some of the effects. The Mobley et al. (1979) model was not sensitive to that difference in the overall goodness-of-fit index because of the “noise” in the model from other sources. With the better fit of the trimmed model, the effect of the differences in quit rate can be seen. In terms of the appropriateness of the model for volunteers, however, it is clear that their attitudes and behavior can be assessed by the same methods as are used with paid workers and that the patterns of their behavior can be understood and predicted.

Aside from the *Family Income Responsibility*, *Tenure* and *Intent to Quit* paths to *Turnover* that are nonsignificant for paid workers because of the low quit rate, the remaining five differences between paths for the paid workers and the volunteers are associated with variety in determinants of the affective responses to the organization. Differences between the two groups seem to reflect the primary career nature of the job for the paid workers. Thus *Tenure*, *Adherence to Rules and Procedures* and *Friendship*

are more important for the paid worker while the variables affecting volunteers are either demographic (*Age*) or esteem generating (*Organization's Need*).

Implications of the Findings from this Research

Implications for research. The model provided by Mobley et al. (1979) was a conceptual model. Consequently the studies that have been conducted to test its fit have not been able to derive specific guidance from it concerning the operationalization of the variables it specifies. This is probably the reason that most of the research has concentrated on the variables which are less ambiguous, such as *Intent to Quit*, and *Intent to Search*. This focus does not provide long-term predictive power, however, and research must begin to concentrate on the more distal end of the path to turnover if useful results are to be produced and if the disengagement process is to be understood. Variables names such as *Work Values* or *Job Perceptions* do not convey enough specific information to guide research, and, unfortunately, there has not yet been enough multivariate research done to give a sound empirical basis to the selection of truly representative variables. One important line of research, therefore, is to determine the viable candidates for inclusion in analyses of this sort and to generate a model whose paths are unambiguous.

My research indicates that there may be another complication to the isolation of such factors. In the past, data in research of this sort have been collected across occupational categories and have been analyzed in common. It is evident from the significant differences in means in the three occupational categories studied in this research that much of the instability in relationships reported from study to study may reflect real differences in how these variables interact with occupational categories. One recommendation for future research stemming from this study, therefore, is that occupational categories be analyzed separately to determine if they generate distinctive patterns in disengagement. Only when the paths to disengagement within individual

occupations are understood and reliably modeled should an attempt be made to test a more universal model.

Implications for practice. How should these results guide practice? There are two approaches to keeping the volunteer engaged in the organization. The first is through selection. The second is through management. The personal factors that the organization can identify and use in selection of desirable volunteers all concern individual work values, specifically nonpay-related work values and job involvement. One or the other of these variables directly affects organizational commitment, job satisfaction, and the intent to alter involvement. The other major factors affecting the intermediate variables that management can do something about are the job characteristics of autonomy and feedback. Managers should therefore monitor the quality of feedback and the structuring of work design to allow for such autonomy as is consonant with safety in life-threatening or life-sustaining situations. Belief in the organization's need for the worker's skills enhances the attraction of the present job for volunteers. The organization should take steps to make the valued volunteer aware that his skills are needed, that his work is valued, and that if he were not there, the goals of the organization would suffer. If these factors are properly handled, then organizational commitment and job satisfaction should be affected, the expected utility of the present job should be viewed more positively, and the intent both to alter involvement level and to quit should be reduced in intensity.

These variables are also important for the paid worker. In addition, the safety net provided by adherence to rules and procedures is an important determinant of commitment to the organization for the paid worker. Management practice should also emphasize the role of friendship in job satisfaction for paid workers, since such a great proportion of the worker's life is tied up in the job situation.

Both the Mobley model and the trimmed model fit both groups as predicted, but the more parsimonious trimmed model fits the data better than the Mobley et al.

(1979) model. In part this is due to the nature of model fitting and its taking advantage of sampling error. The trimmed model must be tested in other samples of paid and volunteer workers to confirm its merit.

In regard to the disengagement behavior of volunteers, this research has demonstrated that they do follow patterns similar to those of paid workers. Furthermore, their sensitivity to issues of values and commitment is echoed in the findings associated with paid workers, although at times the weight given those values may be less because of the competing force of career and financial considerations. Still, this research indicates that such factors are important and should not be disregarded when the long-term prospects of paid workers are being considered.

Studies such as this could also be extremely beneficial in enhancing the commitment and long-term involvement of volunteers. As the City of Virginia Beach demonstrates, use of a highly-trained volunteer force can be very desirable from an economic standpoint and from the standpoint of delivery of services. Volunteers are effective, and as this study shows, volunteers are manageable.

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APPENDIX A

Table of Significant Relationships among Variables
Found in Recent Multivariate Studies of Turnover

PREDICTOR	Age	Tenure	Pay Status	Job Involvement	Job Satisfaction	Organization Commitment	Intent to Search	Intent to Quit	Turnover
AGE									
Arnold & Feldman (1982)					.15	.24	-.32	-.26	-.22
Hom & Hulin (1981) (1)									.41
Hom & Hulin (1981) (2)									-.14
Michaels & Spector (1982)		ns			.31	.28		.27	ns
Spencer & Steers (1980) (1)									ns
Spencer & Steers (1980) (2)									ns
AGE/TENURE									
Motowidlo (1983)					ns			ns	ns
MARITAL STATUS (M=1, S=2)									
Arnold & Feldman (1982)					-.11	-.16	.13	ns	.12
Hom & Hulin (1981) (1) & (2)									ns
GENDER (M=1, F=2)									
Arnold & Feldman (1982)									
Gould & Werbel (1983)		-.23		ns	-.15	-.17	.17	ns	.12
Hom & Hulin (1981) (1) & (2)									ns
Spencer & Steers (1980) (1)									-.14
Spencer & Steers (1980) (2)									-.12
EDUCATION									
Gould & Werbel (1983)		ns		ns		-.28			
Spencer & Steers (1980) (1) & (2)									ns
RACE (NW=1, W=2)									
Hom & Hulin (1981) (1)									.22
Hom & Hulin (1981) (2)									ns
N. DEPENDENTS									
Arnold & Feldman (1982)		.20			.12	.16	-.19	-.09	-.18
Gould & Werbel (1983)		ns		.14		.20			
Hom & Hulin (1981) (1)									-.31
Hom & Hulin (1981) (2)									-.14
PAY STATUS (VOL=1, PD=2)									
Pearce (1983)					-.40			.52	
TENURE									
Arnold & Feldman (1982)									
Gould & Werbel (1983)				.25	ns	ns	-.09	-.13	-.30
Hom & Hulin (1981) (1) & (2)						.13			
Michaels & Spector (1982)	ns				ns	ns		ns	ns
Reichers (1986)						ns			
INTRINSIC MOTIVATION									
Pearce (1983)			ns		.17			-.44	
SOCIAL MOTIVATION									
Pearce (1983)			-.31		.30			-.33	
SERVICE MOTIVATION									
Pearce (1983)			-.40		.37			-.44	

	Age	Tenure	Pay Status	Job Involvement	Job Satisfaction	Organization Commitment	Intent to Search	Intent to Quit	Turnover
TASK PERCEPTIONS									
Motivation Potential Score									
Caldwell & O'Reilly (1982)	ns	ns			.54				ns
Michaels & Spector (1982)					.28	.21		.29	.20
Significance									
Caldwell & O'Reilly (1982)	ns	ns			.27				
Moch (1980)			.16						
Identity									
Caldwell & O'Reilly (1982)	ns	-.26			.41				
Moch (1980)			.20						
Skill variety									
Caldwell & O'Reilly (1982)	ns	ns			.34				
Moch (1980)	.05								
Feedback									
Caldwell & O'Reilly (1982)	ns	ns			.43				
Moch (1980)	.20								
Autonomy									
Caldwell & O'Reilly (1982)	ns	ns			.51				
Moch (1980)			.21						
AMOUNT OF PAY									
Motowidlo (1983)	.32				.25			.21	.16
JOB INVOLVEMENT									
Gould & Werbel (1983)		.25				.46			
Rabinowitz (1981)				ns					
Spencer & Steers (1980) (1)		.30							
Spencer & Steers (1980) (2)		ns							
Wiener & Vardi (1980) (1)							.40		
Wiener & Vardi (1980) (2)							.48		
JOB SATISFACTION									
Arnold & Feldman (1982)	.15	ns				.69	-.55	-.30	-.24
Farrell & Rusbult (1981)						.67			
Hom et al. (1984)							-.52	ns	
Michaels & Spector (1982)	.31	ns				.67		.68	.20#
Motowidlo (1983)									-.17
Pearce (1983)			-.40						
Rabinowitz (1981)			ns						
Reichers (1986)		ns				.66			
Pay									
Hom & Hulin (1981) (1)									-.30
Hom & Hulin (1981) (2)									ns
Motowidlo (1983)					.21			.48	.23
Promotion									
Dreher & Dougherty (1980)									ns
Dreher & Dougherty (1980)	-.21								
Hom & Hulin (1981) (1)									-.29
Hom & Hulin (1981) (2)									ns
Work									
Dreher & Dougherty (1980)									ns
Hom & Hulin (1981) (1)									-.46
Hom & Hulin (1981) (2)									ns
Co-workers									
Dreher & Dougherty (1980)		-.29							-.23
Hom & Hulin (1981) (1)									ns
Hom & Hulin (1981) (2)									
Immediate supervisor									
Hom & Hulin (1981) (1)									-.24
Hom & Hulin (1981) (2)									ns
COMPETITION FOR JOBS									
Dreher & Dougherty (1980)									-.26

	Age	Tenure	Pay Status	Job Involvement	Job Satisfaction	Organization Commitment	Intent to Search	Intent to Quit	Turnover
ORGANIZATIONAL COMMITMENT									
Arnold & Feldman (1982)	.24	ns			.69		-.67	-.40	-.26
Farrell & Rusbult (1981)					.67				.57
Hom et al. (1984)	-.47								-.46
Hom & Hulin (1981) (1)									ns
Hom & Hulin (1981) (2)									-.16#
Michaels & Spector (1982)	.28	ns			.67			-.60#	
Reichers (1986)		ns			.66				
Internalization									
O'Reilly & Chatman (1986)*		ns						-.62	-.19
Spencer & Steers (1980) (1)		.49							
Spencer & Steers (1980) (2)		ns							
Wiener & Vardi (1980) (1)				.40					
Wiener & Vardi (1980) (2)				.48					
Identification									
Gould & Werbel (1983)		13		.46					
O'Reilly & Chatman (1986)*		.25						-.25	-.23
Compliance									
O'Reilly & Chatman (1986)*		-.31						.35	ns
Spencer & Steers (1980) (1)				.25					-.18
Spencer & Steers (1980) (2)				ns					ns
Wiener & Vardi (1980) (1)				ns					
Wiener & Vardi (1980) (2)				ns					
MET EXPECTATIONS									
Arnold & Feldman (1982)	ns	ns			.39	.37	-.26	-.16	-.09
Hom et al. (1984)				.70		-.43	-.44	ns	
Michaels & Spector (1982)	ns				.34	.18		.32	ns
INEQUITY									
Hom et al. (1984)				-.64		.30	.35	ns	
CONFLICTING STANDARDS									
Arnold & Feldman (1982)	.15	ns			ns	.38	-.26	-.19	-.08
JOB SECURITY									
Arnold & Feldman (1982)	-.07	ns			-.20	-.22	.21	.15	.14
THOUGHTS OF QUITTING									
Hom et al. (1984)					-.64		.70	.66	.23
Motowidlo (1983)					-.24*				.30
EXPECTED UTILITY OF SEARCH AND QUITTING									
Hom et al. (1984)				-.39		.67	.53	.28	
EVALUATION OF ALTERNATIVE									
Arnold & Feldman (1982)	-.42	-.17			.12	ns	ns	.13	.10
Farrell & Rusbult (1981)				ns	-.21				
Hom et al. (1984)				ns		.17	ns	ns	
Michaels & Spector (1982)	ns	ns			ns	ns	ns	ns	ns
COMPARISON WITH ALTERNATIVE									
Hom et al. (1984)				-.35		.41	.43	.16	
INTENT TO SEARCH									
Arnold & Feldman (1982)	-.32	-.09			-.55	-.67		.55	.30
Hom et al. (1984)				-.48			.75	.31	
INTENT TO QUIT									
Arnold & Feldman (1982)	-.26	-.13			-.30	-.40	.55		.19
Hom et al. (1984)					-.52		.75		.24
Hom & Hulin (1981)	-.70								
Michaels & Spector (1982)	.27	ns			-.68	-.60#			.41
O'Reilly & Chatman (1986)*									.41
Pearce (1983) (Vol.=1, Paid=2)			.52						

	Age	Tenure	Pay Status	Job Involvement	Job Satisfaction	Organization Commitment	Intent to Search	Intent to Quit	Turnover
SEARCH FOR ALTERNATIVES Hom et al. (1984)				-.32		.55	.44	.30	
TURNOVER									
Arnold & Feldman (1982)	-.22	-.30							
Hom et al. (1984)				ns	-.24	-.26	.30	.19	
Hom & Hulin (1981)					-.47	.31	.24		
Hom & Hulin (1981) (1)	-.41	ns				-.46		-.70	
Hom & Hulin (1981) (2)	-.14	ns				ns			
Michaels & Spector (1982) #	ns	ns			-.20	-.16	.41		
Motowidlo (1983)					.17			.30	
O'Reilly & Chatman (1986)								.41*	
Spencer & Steers (1980) (1)	ns								
Spencer & Steers (1980) (2)	ns								

Notes:

Study	Subjects
Arnold & Feldman (1982)	654 Canadian Chartered Accountants
Caldwell & O'Reilly (1982)	88 field representatives
Dreher & Dougherty (1980)	692 managerial, professional and technical personnel
Farrell & Rusbult (1981)	128 (1) undergraduates; 163 (2) industrial workers
Gould & Werbel (1983)	286 municipal employees
Hom et al. (1984)	192 hospital employees
Hom & Hulin (1981)	1169 National Guardsmen.
	Note figures in article are for intent to reenlist and reenlistment. These are posted here in negative form, under intent to quit and turnover.
Hom & Hulin (1981)	(1) zero order correlation with failure to reenlist
Hom & Hulin (1981)	(2) partial correlation after Behavioral Intent to reenlist is removed.
Michaels & Spector (1982)	112 Community Mental Health Workers: Note apparent error in authors' Table 1 (p.56). Sense of article suggests that satisfaction-correlation should be negative.
Moch (1980)	522 industrial workers
Motowidlo (1983)	89 sales representatives
O'Reilly & Chatman (1986)	82 university employees.
	* correlations were phrased in the opposite direction in article.
Pearce (1983)	58 volunteer & 48 paid workers in 4 types of organizations
Rabinowitz (1981)	79 HS graduate full-time employees
Reichers (1986)	124 mental health professionals.
Spencer & Steers (1980)	200 clerical & service hospital employees
	(1) simple correlations
	(2) partial correlations
Wiener & Vardi (1980)	56 insurance salesmen and 85 staff professionals

* The correlation sign has been changed from what was given in the article in order to convey the intended meaning better in this context.

A positive correlation was given in the chart in the article. Careful reading shows that the sign was a typographical error.

APPENDIX B
COPY OF QUESTIONNAIRE
ADMINISTERED TO
RESPONDENTS

Place the computer answer sheet so that Side 1 is facing you. Please answer the following questions in the designated areas to the left of the heavy vertical stripe.

I. NAME: In the top left hand section print in your last name, skip one space, print your first name, skip one space and print your middle initial. Now, in each column, black in the circle that matches each letter.

II. SEX: Now move to the block labeled "sex" and blacken the circle that matches you, M for male and F for female.

III. DATE OF BIRTH: Next, look in the lower left corner and blacken the circle that is beside the month you were born in, the two numbers that fit the day of the month (use 01, 02, 03...09 for the single digit numbers). Then blacken the two numbers that give the last two digits of the year you were born in (66 for 1966; 52 for 1952).

NOW...place the computer answer sheet so that Side 1 is still facing you. Begin the next set of answers in the area to the right of the wide vertical line, moving on to the back of the answer sheet when you reach question 100. Answer all the questions.

1. How available are good volunteer jobs in the local area for people with your skill, experience, and working goals?

(1)	(2)	(3)	(4)	(5)
Very easy to find	Somewhat easy to find	Jobs are there if you look	Somewhat hard to find	Very hard to find

2. What are the chances that you yourself would get selected for other jobs in the local area over the other applicants?

(1)	(2)	(3)	(4)	(5)
Extremely likely; Almost certain	Somewhat likely	50/50 chance	Somewhat unlikely	Extremely unlikely; Almost impossible

3. If you were to quit this job, what would be the consequences for other people, such as your family, who matter to you?

(1)	(2)	(3)	(4)	(5)
Severe disadvantage for others	inconvenience for others	neither benefit nor disadvantage for others	some benefit for others	major benefits for others

4. How strongly do you feel that the organization needs your skills, abilities, and/or time?

(1)	(2)	(3)	(4)	(5)
They would not miss what I do	The job is not very important and anyone can do it.	The job is necessary but anyone can do it.	Workers for this necessary job can be found or trained, given some time.	The job is essential and replacements are very hard to find

5. What are your intentions about continuing your volunteer work with the city?

(1)	(2)	(3)	(4)	(5)
I'm not sure when, but I plan to quit.	I plan to quit in the next month	I intend to quit within the next 2 to 6 months	I intend to quit in 6 months to 1 year	I have no intentions of quitting

6. Do you intend to increase or decrease your involvement with the organization over the next year, or do you expect that it will stay about the same?
 Answer: I think that my involvement will...

(1)	(2)	(3)	(4)	(5)
Decrease a lot.	Decrease a little.	Stay about the same.	Increase a little	Increase a lot

7. Have you looked around at all for another job or voluntary activity?

(1)	(2)	(3)	(4)	(5)
I've filled out applications for other jobs or activities	I have appointments and/or interviews set up	I have made phone calls to organizations to get job information	I've looked for ads for workers with my skills	No

8. Do you plan to look around for another job or voluntary activity?

(1)	(2)	(3)	(4)	(5)
I plan to start looking at once for another job or activity.	I'll start to look for another job or activity this month	I might find out what is available later this year	I might start looking next year or later	I have no intentions of searching for another job or activity

RESPOND TO STATEMENTS 9 to 28 BY INDICATING HOW YOU FEEL ABOUT YOUR PRESENT VOLUNTEER JOB...WHAT THINGS YOU ARE SATISFIED WITH AND WHAT THINGS YOU ARE NOT SATISFIED WITH. ON THE BASIS OF YOUR ANSWERS AND THOSE OF PEOPLE LIKE YOU, WE HOPE TO GET A BETTER UNDERSTANDING OF THE THINGS PEOPLE LIKE AND DISLIKE ABOUT THEIR JOBS.

ASK YOURSELF: How SATISFIED am I with this aspect of my job?

(1) Means I am NOT SATISFIED (this aspect of my job is much poorer than I would like it to be).

(2) Means I am ONLY SLIGHTLY SATISFIED (this aspect of my job is not quite what I would like it to be).

(3) Means I am SATISFIED (this aspect of my job is what I would like it to be).

(4) Means I am VERY SATISFIED (this aspect of my job is even better than I expected it to be).

(5) Means I am EXTREMELY SATISFIED (this aspect of my job is much better than I hoped it could be).

(1) Not satisfied	(2) Slightly satisfied	(3) Satisfied	(4) Very satisfied	(5) Extremely satisfied
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ON MY PRESENT JOB, THIS IS HOW I FEEL ABOUT . . .

9. Being able to keep busy all the time.	1	2	3	4	5
10. The chance to work alone on the job.	1	2	3	4	5
11. The chance to do different things from time to time.	1	2	3	4	5
12. The chance to be "somebody" in the community.	1	2	3	4	5
13. The way my boss handles his/her workers.	1	2	3	4	5
14. The competence of my supervisor in making decisions	1	2	3	4	5
15. Being able to do things that don't go against my conscience.	1	2	3	4	5
16. The way my job provides for steady employment.	1	2	3	4	5

	(1) Not satisfied	(2) Slightly satisfied	(3) Satisfied	(4) Very satisfied	(5) Extremely satisfied
ON MY PRESENT JOB, THIS IS HOW I FEEL ABOUT . . .					
17. The chance to do things for other people				1 2 3 4 5	
18. The chance to tell people what to do.				1 2 3 4 5	
19. The chance to do something that makes use of my abilities.				1 2 3 4 5	
20. The way company policies are put into practice.				1 2 3 4 5	
21. The amount of work I do without pay.				1 2 3 4 5	
22. The chances for advancement on this job.				1 2 3 4 5	
23. The freedom to use my own judgment.				1 2 3 4 5	
24. The chance to try my own methods of doing the job.				1 2 3 4 5	
25. The working conditions.				1 2 3 4 5	
26. The way my co-workers get along with each other.				1 2 3 4 5	
27. The praise I get for doing a good job.				1 2 3 4 5	
28. The feeling of accomplishment I get from the job.				1 2 3 4 5	
29. How satisfied would you expect to feel in 3 months if you were to continue with this organization?				1 2 3 4 5	
30. How satisfied would you expect to feel in 1 year if you were to continue with this organization?				1 2 3 4 5	
31. Considering the kinds of work or activities you know are available to you, how satisfied do you think you would be in 3 months time if you left this job for another organization or volunteer activity?				1 2 3 4 5	
32. Considering the kinds of work or activities you know are available to you, how satisfied do you think you would be in 1 year if you left this job for another organization or volunteer activity?				1 2 3 4 5	

QUESTIONS 33 THROUGH 45 ARE CONCERNED WITH DESCRIBING CERTAIN CHARACTERISTICS OF YOUR VOLUNTEER JOB. PLEASE SELECT THE APPROPRIATE NUMBER, FROM 1 TO 5, INDICATING FROM "VERY LITTLE" TO "VERY MUCH" HOW MUCH OF THIS QUALITY IS FOUND IN YOUR JOB.

	Very Little	Little	A moderate amount	Much	Very Much
33. How much variety is there in your job?	(1)	(2)	(3)	(4)	(5)
34. How much are you left on your own to do your own work.	(1)	(2)	(3)	(4)	(5)
35. How often do you see projects or jobs through to completion?	(1)	(2)	(3)	(4)	(5)
36. To what extent do you find out how well you are doing on the job as you are working?	(1)	(2)	(3)	(4)	(5)
37. How much opportunity is there to meet individuals whom you would like to develop friendship with?	(1)	(2)	(3)	(4)	(5)
38. How much of your job depends upon your ability to work with others?	(1)	(2)	(3)	(4)	(5)
39. How repetitious are your duties?	(1)	(2)	(3)	(4)	(5)
40. To what extent are you able to act independently of your supervisor in performing your job function?	(1)	(2)	(3)	(4)	(5)
41. To what extent do you receive information from your superior on your job performance?	(1)	(2)	(3)	(4)	(5)
42. To what extent do you have the opportunity to talk informally with other employees while at work?	(1)	(2)	(3)	(4)	(5)
43. To what extent is dealing with other people a part of your job?	(1)	(2)	(3)	(4)	(5)

- | | | | | | |
|---|-----|-----|-----|-----|-----|
| 44. How similar are the tasks you perform in a typical work day? | (1) | (2) | (3) | (4) | (5) |
| 45. To what extent are you able to do your job independently of others? | (1) | (2) | (3) | (4) | (5) |

QUESTIONS 46 THROUGH 62 PRESENT A NUMBER OF STATEMENTS DESCRIBING JOB CHARACTERISTICS. PLEASE INDICATE HOW MUCH THE CHARACTERISTIC IS ACTUALLY PRESENT IN YOUR JOB BY MARKING THE APPROPRIATE NUMBER ON THE COMPUTER SHEET.

	A minimum amount is present in my job		A moderate amount is present in my job		A maximum amount is present in my job
46. The feedback from my supervisor on how well I'm doing.	(1)	(2)	(3)	(4)	(5)
47. Friendship from my co-workers.	(1)	(2)	(3)	(4)	(5)
48. The opportunity to talk to others on my job.	(1)	(2)	(3)	(4)	(5)
49. The opportunity to do a number of different things.	(1)	(2)	(3)	(4)	(5)
50. The freedom to do pretty much what I want on my job.	(1)	(2)	(3)	(4)	(5)
51. The degree to which the work I'm involved with is handled from beginning to end by myself.	(1)	(2)	(3)	(4)	(5)
52. The opportunity to find out how well I am doing on my job.	(1)	(2)	(3)	(4)	(5)
53. The opportunity in my job to get to know other people.	(1)	(2)	(3)	(4)	(5)
54. The amount of variety in my job.	(1)	(2)	(3)	(4)	(5)

HOW MUCH OF EACH CHARACTERISTIC IS ACTUALLY PRESENT IN YOUR JOB?

	A minimum amount is present in my job		A moderate amount is present in my job		A maximum amount is present in my job
55. The opportunity for independent thought and action.	(1)	(2)	(3)	(4)	(5)
56. The opportunity to complete work I start.	(1)	(2)	(3)	(4)	(5)
57. The feeling that I know whether I am performing my job well or poorly.	(1)	(2)	(3)	(4)	(5)
58. The opportunity to develop close friendships in my job.	(1)	(2)	(3)	(4)	(5)
59. Meeting with others in my work.	(1)	(2)	(3)	(4)	(5)
60. The control I have over the pace of my work.	(1)	(2)	(3)	(4)	(5)
61. The opportunity to do a job from the beginning to end (i.e., the chance to do a whole job).	(1)	(2)	(3)	(4)	(5)
62. The feedback about my performance that I receive from individuals other than my supervisor.	(1)	(2)	(3)	(4)	(5)

WHAT ATTRACTS YOU TO THIS JOB AND TO WORKING FOR THE CITY? QUESTIONS 63 THROUGH 72 LIST A NUMBER OF THINGS THAT ATTRACT DIFFERENT PEOPLE TO DIFFERENT JOBS. RATE EACH OF THESE ACCORDING TO HOW STRONG AN EFFECT IT HAD ON YOUR BEING ATTRACTED TO AND CONTINUING IN THIS JOB.

	— THE STRENGTH OF THE ATTRACTION —				
	None	Weak	Moderate	Strong	Extreme
63. Learning or polishing a skill that I can get paid for later	(1)	(2)	(3)	(4)	(5)
64. Learning, improving, or just getting to use a skill that gives me pleasure.	(1)	(2)	(3)	(4)	(5)
65. Being with the kind of people I like.	(1)	(2)	(3)	(4)	(5)
66. Being appreciated for what I do.	(1)	(2)	(3)	(4)	(5)
67. Having the chance to give something to my community.	(1)	(2)	(3)	(4)	(5)
68. To add variety to my life; to get out of the house.	(1)	(2)	(3)	(4)	(5)
69. I find this kind of work to be exciting.	(1)	(2)	(3)	(4)	(5)
70. I like being where decisions are made that affect the community.	(1)	(2)	(3)	(4)	(5)
71. People look up to those who do this kind of work.	(1)	(2)	(3)	(4)	(5)
72. The pay, benefits, and job security.	(1)	(2)	(3)	(4)	(5)

STATEMENTS 73-101 HAVE TO DO WITH YOUR ATTITUDES AND BELIEFS ABOUT YOUR JOB, THE ORGANIZATION YOU WORK FOR, AND WORK IN GENERAL.

- a. When the word JOB is used, think about the KIND OF WORK you do, not the organization or your position in the organization.
- b. When the word WORK is used, think about WORK IN GENERAL rather than your particular profession or job.

BLACKEN THE NUMBER ON THE ANSWER SHEET THAT BEST FITS HOW MUCH YOU AGREE OR DISAGREE WITH EACH STATEMENT.

	(1) strongly agree	(2) agree	(3) neither completely agree nor disagree	(4) disagree	(5) strongly disagree
73. The most important things that happen in life involve work.				(1) (2) (3) (4) (5)	
74. I will be doing just about the same thing for as long as I work here.				(1) (2) (3) (4) (5)	
75. The most important things that happen to me involve my present job.				(1) (2) (3) (4) (5)	
76. Work should be only a small part of one's life.				(1) (2) (3) (4) (5)	
77. To me, my job is only a small part of who I am.				(1) (2) (3) (4) (5)	
78. I am very much involved personally in my job.				(1) (2) (3) (4) (5)	
79. I live, eat, and breathe my job.				(1) (2) (3) (4) (5)	
80. Most of my interests are centered around my job.				(1) (2) (3) (4) (5)	
81. I have very strong ties with my present job which would be very difficult to break.				(1) (2) (3) (4) (5)	
82. Usually I feel detached from my job.				(1) (2) (3) (4) (5)	
83. Most of my personal life goals are job-oriented.				(1) (2) (3) (4) (5)	
84. I consider my job to be very central to my existence.				(1) (2) (3) (4) (5)	
85. I like to be absorbed in my job most of the time.				(1) (2) (3) (4) (5)	

	(1) strongly agree	(2) agree	(3) neither completely agree nor disagree	(4) disagree	(5) strongly disagree
86. In this organization, in the future, I probably will have less chance to do things I like.				(1) (2) (3) (4) (5)	
87. Work is something people should get involved in most of the time.				(1) (2) (3) (4) (5)	
88. In this organization, in the future, I expect to have more chance of getting what I am looking for in my volunteer job.				(1) (2) (3) (4) (5)	
89. I could easily find a volunteer activity that suits my needs and skills better than this one does.				(1) (2) (3) (4) (5)	
90. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.				(1) (2) (3) (4) (5)	
91. In my view, an individual's personal life goals should be work-oriented.				(1) (2) (3) (4) (5)	
92. I talk up this organization to my friends as a great organization to work for.				(1) (2) (3) (4) (5)	
93. I would accept almost any type of job assignment in order to keep working for this organization.				(1) (2) (3) (4) (5)	
94. I find that my values and the organization's values are very similar.				(1) (2) (3) (4) (5)	
95. I am proud to tell others that I am part of this organization.				(1) (2) (3) (4) (5)	
96. Work should be considered central to life.				(1) (2) (3) (4) (5)	
97. This organization really inspires the very best in me in the way of job performance.				(1) (2) (3) (4) (5)	
98. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.				(1) (2) (3) (4) (5)	
99. I really care about the fate of this organization.				(1) (2) (3) (4) (5)	

(1) strongly agree	(2) agree	(3) neither completely agree nor disagree	(4) disagree	(5) strongly disagree			
100. For me this is the best of all possible organizations for which to work.			(1)	(2)	(3)	(4)	(5)
101. Life is worth living only when people get absorbed in work.			(1)	(2)	(3)	(4)	(5)
102. How long have you had this job?							
a. Less than one year							
b. One or more years, but less than 5 years							
c. Five or more years, but less than 10 years							
d. Ten or more years, but less than 15 years							
e. Fifteen years or longer							
103. In total, how long have you worked for the city as a volunteer or paid employee or both?							
a. Less than one year							
b. One or more years, but less than 5 years							
c. Five or more years, but less than 10 years							
d. Ten or more years, but less than 15 years							
e. Fifteen years or longer							
104. How many years of formal schooling have you had?							
a. Some high school, but did not complete high school							
b. Completed high school							
c. Some college, but less than a Bachelor's degree							
d. Completed a Bachelor's degree							
e. Completed a graduate degree							
105. How much specialized training have you had for the work you do in this organization? Please include on-the-job training, more formal training given by the organization and training received elsewhere.							
a. I have no specialized training.							
b. I have had brief specialty training but still need guidance in most of the job's areas.							
c. I have had a fair amount of specialty training but still need guidance in a few of the job's areas.							
d. I have had moderate amounts of formal specialty training and can work well independently.							
e. I have had extensive specialty training, can work independently and can guide or teach others.							
106. How many non-working dependents are in your household?							
a. None							
b. One							
c. Two							
d. Three							
e. Four or more							
107. If something happens to a member of your household, such as illness or accidents, or they have to be driven somewhere, or an errand must be performed for them, how often are you the one who has to take care of the problem?							
(a) Never	(b) Once in a while	(c) I share this evenly	(d) Most of the time	(e) Always			
108. How much of the family income are you responsible for?							
(a) None	(b) Less than half	(c) Half	(d) More than half	(e) All			

109. Do you presently attend a school with a schedule that extends for at least three months? If so, how heavy is your academic load?

- | | | | | |
|-----------|----------------------------|------------------------------|------------------------------|------------------------------------|
| (a)
No | (b)
1/4
load
less | (c)
1/4
to 1/2
load | (d)
1/2 to
3/4
load | (e)
3/4 load
to full
load |
|-----------|----------------------------|------------------------------|------------------------------|------------------------------------|

110. How much time per month do you devote to volunteer and /or paid work in jobs other than this one? Count the number of days you go to work, not the number of hours per day or week.

- | | | | | |
|------------------------------------|----------------------------------|---------------------------------|---------------------------------|------------------------------------|
| (a)
1 day a
month
or less | (b)
2 to 3
days a
month | (c)
1 to 2
days a
week | (d)
3 to 4
days a
week | (e)
4 or more
days a
week |
|------------------------------------|----------------------------------|---------------------------------|---------------------------------|------------------------------------|

111. How much time do you devote per week to formal participation in hobbies, sports, talents, and so forth?

- | | | | | |
|-----------------------------------|---|---|--|----------------------------------|
| (a)
Less
than
3
hours | (b)
3 or more
hours but
less than
6 hours | (c)
6 or more
hours but
less than
9 hours | (d)
9 or more
hours but
less than
12 hours | (e)
12
or
more
hours |
|-----------------------------------|---|---|--|----------------------------------|

112. Do opportunities exist in your organization for people with jobs like yours to advance to positions of higher authority or status?

- | | | | | |
|--|--|---|--|--|
| (a)
No.
No such
positions
exist. | (b)
Very few.
Many people
must compete
for every
chance | (c)
Some
Workers
can move
up one or
two levels | (d)
Most can
move up one
or two
levels | (e)
A lot.
Good
workers
can go t
the top. |
|--|--|---|--|--|

113. How quickly do the best volunteer workers in positions like yours get promoted to more responsible, higher status jobs?

- | | | | | |
|--------------|--|------------------------------------|-----------------------------------|------------------------------------|
| (a)
Never | (b)
Once in
a career
lifetime | (c)
Once in
5 to 10
years | (d)
Once in
1 to 5
years | (e)
More than
once a
year |
|--------------|--|------------------------------------|-----------------------------------|------------------------------------|

114. If a more responsible or interesting job needed to be filled, how would the rules of your company, the fire department or of the city itself affect your chances, as a volunteer, of being considered? Would you have a fair chance at it?

THE RULES AND REGULATIONS...

- | | | | | |
|---------------------------------|---|--|---|-----------------------------------|
| (a)
Generally
favor
me | (b)
Favor me
more than
exclude
me | (c)
Neither
favor nor
exclude
me | (d)
Exclude
more than
favor me | (e)
Generally
exclude
me |
|---------------------------------|---|--|---|-----------------------------------|

115. How much physical danger is there in your job?

- | | | | | |
|---|--|---|--|---|
| (a)
None.
It is
never
dangerous | (b)
Little.
It is
seldom
dangerous | (c)
Some.
It is
sometimes
dangerous | (d)
A lot.
It is
often
dangerous | (e)
Constant.
It is
usually
dangerous |
|---|--|---|--|---|

116. How carefully are absences of volunteer workers kept track of in your company?
- No one pays much attention to whether you are present or not
 - My supervisor keeps an eye on how often we are absent, but no official records are kept.
 - They try to keep a record of absence, but it probably isn't really accurate.
 - They USUALLY record unauthorized absence at the company level and report it to higher authority.
 - All authorized and unauthorized absence is ALWAYS recorded and reported to higher authority.
117. What would the consequences actually be in your company if you were absent without authority more than twice in three months?
- Even if someone noticed, nothing would happen.
 - I might get spoken to about it.
 - I probably would receive some mild discipline like extra work.
 - I might be temporarily suspended or fined.
 - I would be asked to leave the company; I would be dismissed.
118. When you do your particular job, do you work with the same individuals from day to day?
- always
 - usually
 - about half the time the people are the same
 - seldom
 - never
119. Do you feel included in the friendship of the group with which you work most closely from day to day?
- Not at all.
 - I am neither welcomed nor excluded.
 - I feel welcome and accepted by some group members.
 - I feel as if I am part of a friendly group
 - I am part of a close and cohesive group whose members care about each other.
120. When you do your particular job, how large is the group you work most closely with?
- I usually work alone although others may be in the area.
 - Less than 4
 - 4 to 6
 - 7 to 9
 - 10 or more
121. Do you have any influence on the decisions about how things are to be done in your volunteer company and how it is to be run?
- An active attempt is usually made to get my opinions and ideas before changes are made.
 - If I offer opinions or ideas, they will be carefully considered.
 - My opinions are sometimes considered.
 - My opinions and ideas are seldom considered.
 - My opinions and ideas are never considered.
122. Do you make independent judgments on your job about what has to be done or how to do it?
- Never. What I must do is clearly spelled out in city and departmental rules and directives.
 - What I have to do is clearly spelled out for me. I sometimes have to decide on my own how to go about doing it.
 - Rules and instructions give me a general idea of what needs to be done, but how I do it is usually up to me.
 - I frequently have to use my own judgment as case to case circumstances change.
 - I have complete independence in deciding what has to be done and how to do it.

123. Is how you go about your job determined mainly by departmental policy or by your professional training and standards?
- Departmental policy determines what I do almost entirely.
 - Departmental policy and rules usually dictate what I do, but my professional training also partly determines how I do it.
 - How I do my job is determined about half by policy and half by my professional training.
 - My professional training determines how and what I do for the most part, although departmental rules have some effect.
 - My professional training determines how I do my job almost entirely.
124. Does your closest work group stick to the rules given by your department?
- Official policies and procedures don't really exist for most of what we do on the job.
 - The official rules and procedures are usually used just as a general guide line. We develop our own way of doing things.
 - We follow the rules and guidelines given by the department as closely as we can as long as circumstances permit
 - Even in emergencies and crises, the approved procedures can be followed and we usually do follow them.
 - We do exactly what official policy and procedures tell us should be done in all situations.
125. Do you use the same work methods or steps for doing your major tasks from day to day?
- | | | | | |
|--------|--------|------------|----------|-------------|
| (1) | (2) | (3) | (4) | (5) |
| not | seldom | about half | most of | Yes. All |
| at all | | the time | the time | of the time |
126. How precisely do official rules and procedures specify how your major tasks are to be done?
- | | | | | |
|---------|-----------|--------------|----------|-----------|
| (1) | (2) | (3) | (4) | (5) |
| loosely | quite | somewhat | quite | very |
| | generally | specifically | detailed | precisely |
127. When you consider all of the situations that come up in your work, for what percent of the situations are there written procedures telling how to deal with them?
- | | | | | |
|-------|--------|--------|--------|---------|
| (1) | (2) | (3) | (4) | (5) |
| 0-20% | 21-40% | 41-60% | 61-80% | 81-100% |

APPENDIX C

Correlations

Entire Subject Sample

Paid Employee Sample

Volunteer Employee Sample

List of abbreviations used in this appendix.

<i>Variable Name</i>	<i>Abbreviation</i>
Turnover . . . . .	.TURNOVER
Intent to Quit . . . . .	.PLANQUIT
Search . . . . .	.SEARCH
Intent to Search . . . . .	.PLANSRCH
Consequence of Quitting . . . . .	.CONQUIT
Organization's Need . . . . .	.ORGNEED
Attraction-Expected Utility: Present Job . . . . .	.APJ
Expectations for Present Job . . . . .	.EPJ
Attraction-Expected Utility: Alternatives . . . . .	.AALT
Expectancies for Alternatives . . . . .	.EALT
Job Satisfaction . . . . .	.MSQ
Work Involvement . . . . .	.WIQ
Job Involvement . . . . .	.JIQ
Nonpay-Related Work Values . . . . .	.NONPAY
Labor Market Perceptions . . . . .	.LABOR
Friendship . . . . .	.FRNDSHIP
Working With Others . . . . .	.OTHERS
Task Identity . . . . .	.TASKID
Feedback . . . . .	.FEEDBACK
Autonomy . . . . .	.AUTONOMY
Variety . . . . .	.VARIETY
Adherence to Rules and Procedures . . . . .	.RULES
Family Income Responsibility . . . . .	.INCOME
Schlep . . . . .	.SCHLEP
Tenure . . . . .	.TENURE
Age . . . . .	.AGE
Organizational Commitment . . . . .	.OCQ
Intent to Alter Involvement . . . . .	.IAI

All Subjects Correlation, N of Cases: All subjects

	TURNOVER	FLANQUIT	SEARCH	FLANSHIP	CONQUIT	ORGNEED	AVI	BTI	ALIT	ELIT	MSQ	WTQ	JIQ	NONPAY	LABOR	FRINDSHIP	OTHERS	TASKID	FEEDBACK	AUTONOMY	RULES	INCOME	SCHLEP	TENURE	AGE	OCQ	IAI
TURNOVER	1.000																										
FLANQUIT	.404	1.000																									
SEARCH	.404	.404	1.000																								
FLANSHIP	.404	.404	.404	1.000																							
CONQUIT	.404	.404	.404	.404	1.000																						
ORGNEED	.404	.404	.404	.404	.404	1.000																					
AVI	.404	.404	.404	.404	.404	.404	1.000																				
BTI	.404	.404	.404	.404	.404	.404	.404	1.000																			
ALIT	.404	.404	.404	.404	.404	.404	.404	.404	1.000																		
ELIT	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000																	
MSQ	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000																
WTQ	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000															
JIQ	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000														
NONPAY	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000													
LABOR	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000												
FRINDSHIP	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000											
OTHERS	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000										
TASKID	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000									
FEEDBACK	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000								
AUTONOMY	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000							
VARIETY	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000						
RULES	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000					
INCOME	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000				
SCHLEP	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000			
TENURE	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000		
AGE	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000	
OCQ	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	1.000
IAI	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404	.404

	TURNOVER	SEARCH	PLANQUIT	CONQUIT	AFJ	ALT	ALT	MSQ	WFO	NO	NONPAY	LABOR	FRIENDSHIP	OTHERS	TASKED	FEEDBACK	AUTONOMY	VARIETY	RULES	NOINCOME	SCHLEP	RESPONS	AGE	COO	MA				
TURNOVER	1000	127	-901	931	-967	-935	015	-907	022	055	017	-967	-147	-935	049	041	051	041	053	-908	-957	043	-111	061	046	110	065		
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220			
	127	1000	229	418	-976	-164	-295	-992	337	314	-144	034	-991	-113	-926	-992	-979	-146	-998	-951	-145	-911	-946	039	135	182	-133	360	
SEARCH	662	229	1000	525	930	-993	-226	-140	286	201	-170	-926	000	-911	927	922	015	-932	-964	-977	-974	-908	-928	151	975	-962	-138	-916	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	229	1000	525	930	-993	-226	-140	286	201	-170	-926	000	-911	927	922	015	-932	-964	-977	-974	-908	-928	-928	151	975	-962	-138	-916	
PLANQUIT	931	418	525	1000	015	-126	-376	-979	354	293	-256	010	-998	-183	-913	-113	-964	-912	-995	-990	-180	-985	-974	162	956	-966	-266	133	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	418	525	1000	015	-126	-376	-979	354	293	-256	010	-998	-183	-913	-113	-964	-912	-995	-990	-180	-985	-974	162	956	-966	-266	133		
CONQUIT	-967	-976	930	015	1000	076	213	048	-169	-166	237	986	285	192	-951	250	260	162	142	207	309	018	-942	317	994	997	444	-366	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	-967	-976	930	015	1000	076	213	048	-169	-166	237	986	285	192	-951	250	260	162	142	207	309	018	-942	317	994	997	444	-366	
ORGNEED	-935	-164	-903	-126	976	1000	374	-908	-966	-195	489	-185	368	414	176	326	372	278	364	390	320	133	936	-966	-916	388	-197	946	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	-935	-164	-903	-126	976	1000	374	-908	-966	-195	489	-185	368	414	176	326	372	278	364	390	320	133	936	-966	-916	388	-197	946	
AFJ	015	-295	-226	-376	213	374	1000	370	-276	-452	737	209	355	478	032	375	411	332	569	369	147	237	266	304	300	147	237	266	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	-295	-226	-376	213	374	1000	370	-276	-452	737	209	355	478	032	375	411	332	569	369	147	237	266	304	300	147	237	266		
EPJ	-907	-992	140	-979	948	208	370	1000	-959	-184	369	127	156	338	091	237	266	304	300	147	237	266	304	300	147	237	266	304	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	-907	-992	140	-979	948	208	370	1000	-959	-184	369	127	156	338	091	237	266	304	300	147	237	266	304	300	147	237	266	304	
AALIT	922	317	246	354	-169	-966	-276	-959	1000	364	-135	-970	-234	-139	-166	-930	-130	913	-132	946	-113	903	122	-932	210	-949	594	-266	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	317	246	354	-169	-966	-276	-959	1000	364	-135	-970	-234	-139	-166	-930	-130	913	-132	946	-113	903	122	-932	210	-949	594	-266		
EALT	955	314	201	293	-166	-195	-452	-184	364	1000	-303	-938	-234	-152	248	-116	-154	-150	-125	-136	-179	936	194	-937	308	010	425	-144	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	314	201	293	-166	-195	-452	-184	364	1000	-303	-938	-234	-152	248	-116	-154	-150	-125	-136	-179	936	194	-937	308	010	425	-144		
MSQ	017	-144	-170	-256	237	489	737	369	-135	-303	1000	191	374	578	224	517	510	472	601	578	608	164	-114	-910	-124	903	582	-270	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	-144	-170	-256	237	489	737	369	-135	-303	1000	191	374	578	224	517	510	472	601	578	608	164	-114	-910	-124	903	582	-270		
WFO	-967	934	-926	910	986	-185	209	-127	-970	-938	191	1000	634	365	-101	107	140	117	991	997	159	308	-997	993	928	941	571	-302	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	934	-926	910	986	-185	209	-127	-970	-938	191	1000	634	365	-101	107	140	117	991	997	159	308	-997	993	928	941	571	-302		
JUC	-147	-991	990	-998	285	368	355	156	-234	-234	374	634	1000	582	-946	298	288	210	220	220	220	220	220	220	220	220	220	220	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
	-991	990	-998	285	368	355	156	-234	-234	374	634	1000	582	-946	298	288	210	220	220	220	220	220	220	220	220	220	220	220	
NONPAY	-935	-113	-911	-183	192	414	478	318	-139	-139	-152	578	366	582	1000	259	478	491	253	426	246	126	356	214	087	101	942	-970	941
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
	-935	-113	-911	-183	192	414	478	318	-139	-139	-152	578	366	582	1000	259	478	491	253	426	246	126	356	214	087	101	942	-970	941
LABOR	949	-926	927	-913	176	922	991	166	248	224	-101	-946	259	1000	202	119	951	130	190	155	976	100	949	977	-101	396	-279	291	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
	-926	927	-913	176	922	991	166	248	224	-101	-946	259	1000	202	119	951	130	190	155	976	100	949	977	-101	396	-279	291		
FRNDSHIP	941	-992	922	-113	250	326	375	237	-930	-116	517	107	298	475	202	1000	658	239	528	264	390	209	994	934	978	-996	298	-175	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
	-992	922	-113	250	326	375	237	-930	-116	517	107	298	475	202	1000	658	239	528	264	390	209	994	934	978	-996	298	-175		
OTHERS	951	-979	915	-964	260	372	411	206	-130	-154	510	140	288	491	119	658	1000	248	492	218	391	136	940	958	929	-980	310	-232	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
	-979	915	-964	260	372	411	206	-130	-154	510	140	288	491	119	658	1000	248	492	218	391	136	940	958	929	-980	310	-232		
TASKED	941	-146	-932	-912	162	278	332	204	015	-150	472	117	136	253	651	239	248	1000	371	503	285	959	-948	-921	983	997	-193		
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
	-146	-932	-912	162	278	332	204	015	-150	472	117	136	253	651	239	248	1000	371	503	285	959	-948	-921	983	997	-193			
FEEDBACK	953	-998	-964	-995	142	364	509	300	-132	-125	601	991	246	426	130	528	492	371	1000	364	393	118	-948	-992	-999	-996	427	-337	
	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	22					

Correlation, N of Cases: Volunteer employees data:

	TURNOVER	PLANQUIT	SEARCH	PLANSKCH	CONQUIT	ORGNEED	AJ	EJ	AALT	EALT	MSQ	WTO	NO	NONPAY	LABOR	FRNDSHIP	OTHERS	TASKED	FEEDBACK	AUTONOMY	VARIETY	RULES	INCOME	SCHLEP	TENURE	AGE	OCQ	IAI
TURNOVER	1.000	.392	.082	.136	.093	-.060	-.101	.027	.019	.026	-.050	.079	-.020	.061	-.025	-.054	-.123	-.006	.043	-.212	.074	.020	-.238	-.004	-.167	-.072	-.069	.167
PLANQUIT	.392	1.000	.038	.283	.075	-.199	-.319	.036	.040	.231	-.221	-.045	-.132	-.177	-.042	-.187	-.183	-.126	-.172	-.138	-.008	-.016	-.112	-.106	.110	-.075	-.255	.501
SEARCH	.082	.038	1.000	.549	.046	-.018	.050	.049	.217	.009	.065	.014	.132	.179	-.006	.082	.001	.017	.102	.147	.014	-.003	-.066	-.078	-.126	-.176	.159	-.095
PLANSKCH	.136	.283	.549	1.000	.085	-.151	-.056	.043	.152	.099	-.089	.056	.016	.046	-.111	-.276	-.128	-.024	.074	.000	-.102	-.022	-.143	-.026	-.107	-.146	-.025	.091
CONQUIT	.093	.075	.046	.085	1.000	-.105	.220	-.051	-.015	-.105	.049	.085	-.007	.117	-.002	.043	-.060	.042	.118	-.036	.010	-.088	.009	-.031	-.137	.081	.541	-.290
ORGNEED	-.060	-.199	-.018	-.151	-.105	1.000	.353	.301	-.040	-.129	.213	.068	.143	.193	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184
AJ	-.101	.027	.019	.026	.093	.301	1.000	.080	.013	-.411	.665	.133	.108	.413	.208	.386	.322	.240	.303	.150	.189	.098	.085	.027	-.038	.033	-.048	.110
EJ	.036	.040	.231	.221	.045	-.132	.177	-.042	.187	.183	.126	-.172	.138	.008	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184
AALT	.027	.036	.049	.043	-.051	.301	.080	1.000	-.096	-.203	.109	.003	.237	.236	.249	.194	.349	.081	.044	.080	.341	.286	.212	.052	.121	.223	.039	.043
EALT	.019	.040	.217	.152	-.015	.040	.013	-.096	1.000	.259	-.040	.030	-.080	.061	.080	.132	-.043	.021	.137	.006	.233	-.039	.084	-.069	.069	.089	.556	.209
MSQ	.026	.231	.099	.099	-.105	.129	-.411	.203	.259	1.000	-.386	.005	-.233	.319	.185	.380	.289	.265	.173	.109	-.353	-.156	-.136	-.070	.139	.126	.266	.182
WTO	.079	-.020	.061	.043	.193	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184
JQ	.079	-.045	.014	.056	.085	.068	.133	.003	.030	.005	.126	1.000	.499	.176	.025	.131	.059	.160	.145	.025	.007	.041	.076	.026	-.163	-.010	.543	-.320
NONPAY	-.020	.132	.132	.016	-.007	.143	.108	.237	-.080	-.233	.177	.499	1.000	.392	.048	.293	.232	.107	.019	.048	.201	.088	.132	-.022	-.101	-.395	.024	.080
LABOR	.061	-.177	.179	.046	.117	.193	.413	.236	-.061	-.319	.497	.176	.392	1.000	.075	.478	.487	.167	.289	.061	.299	.295	.018	.047	-.067	-.150	.100	-.097
FRNDSHIP	-.025	-.042	-.006	-.111	-.002	.184	.208	.249	.080	-.185	.201	.025	.048	.075	1.000	.128	.223	.265	.050	.131	.147	.114	.193	.123	.145	-.040	.227	-.102
OTHERS	-.054	.187	-.082	-.276	.043	.229	.386	.194	-.132	.380	.415	.131	.293	.478	.128	1.000	.597	.131	.325	.117	.359	.301	.078	.056	-.015	-.164	.428	.188
TASKED	-.123	.183	.001	.178	-.060	.293	.322	.349	-.013	-.289	.270	.059	.232	.487	.223	.597	1.000	.142	.324	.158	.453	.293	.101	.057	.048	-.210	.258	-.158
FEEDBACK	-.006	-.126	-.017	-.024	.042	.167	.240	.081	-.021	-.265	.379	.160	.107	.167	.265	.131	.142	1.000	.379	.347	.070	.139	.101	.101	-.026	.077	.202	-.089
AUTONOMY	.043	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184
VARIETY	-.212	-.128	.147	.000	-.036	.106	.150	.080	.006	-.109	.250	.025	.048	.061	.131	.117	.158	.347	.129	1.000	.109	-.021	.075	-.026	.106	.041	-.012	.017
RULES	.074	-.008	.014	-.102	.010	.241	.189	.341	-.233	-.333	.183	.007	.201	.299	.147	.359	.453	.070	.105	.109	1.000	.188	.085	.074	-.055	-.133	.219	-.202
INCOME	.020	-.036	-.003	-.022	-.088	.198	.098	.286	-.039	-.156	.121	.041	.088	.295	.114	.301	.293	.139	.062	-.021	.188	1.000	.076	.268	.066	.036	.237	-.065
SCHLEP	-.238	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184
TENURE	-.004	-.106	-.078	-.026	-.031	.107	.027	.052	-.069	-.070	.030	.026	-.022	.047	.123	.056	.057	.101	.037	-.026	.074	.268	-.040	1.000	.135	.182	.060	.035
AGE	-.167	.110	-.126	-.107	-.137	.093	-.038	.121	.069	.139	-.020	-.163	-.101	-.067	.145	-.015	.048	-.026	.172	.106	-.055	.086	.170	.135	1.000	.218	.055	.246
OCQ	-.072	.025	-.176	-.146	.081	-.182	.033	-.233	.039	.126	.076	.010	-.395	-.150	-.040	-.164	-.210	.077	.149	.041	-.133	.036	.115	.182	.218	1.000	.063	.233
IAI	-.069	-.255	.159	-.025	.541	.124	-.048	.029	.556	.265	.333	.543	.024	.100	.227	.428	.258	.202	.217	-.012	.219	.237	.146	.060	.055	.063	1.000	.368
	.167	.501	-.095	.091	-.290	-.161	.110	-.043	-.209	-.132	-.363	.320	.080	-.097	-.202	-.188	-.158	-.089	-.128	.107	-.202	-.065	-.054	.035	.245	.233	.368	1.000
	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184	.184

APPENDIX D

Factor Loadings
for the Scales
Created for this Study

Factor Loadings for Scales Created for this Study

ROTATED FACTOR MATRIX:

	Nonpay-Related Work Values	Attraction- Expected Utility: Present Job	Attraction- Expected Utility: Alternatives	Tenure	Adherence to Rules and Procedures	Expectations for Present Job
	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6
Q69	.70348	.10798	.07351	-.10637	.08414	.21542
Q70	.68139	.02192	-.00478	.04384	.03788	.16835
Q71	.67846	-.00357	.05654	-.05604	.05489	.01956
Q66	.62130	.26648	-.09869	-.00450	.11517	-.07079
Q64	.59639	.22527	.01538	-.07223	.16951	.27789
Q68	.58345	.12677	-.24407	.03606	.12260	.02303
Q67	.56107	.23563	.05002	-.02928	.16119	.05493
Q65	.53834	.27322	.00497	-.06900	.22205	.01493
Q63	.39470	.02216	-.10944	-.01804	.11433	.13450
Q29	.31955	.90861	-.09006	-.05533	.03002	.11296
Q30	.29760	.87084	-.07919	-.08372	.05097	.13603
Q103	-.04751	-.07149	.97560	.09761	.01291	-.07520
Q102	-.03785	-.05494	.86665	.06032	.02084	-.04149
Q32	-.06085	-.06656	.05575	.96823	-.02117	-.03282
Q31	-.06460	-.05205	.09606	.89426	-.00173	-.04070
Q126	.07570	-.01662	.03469	-.01505	.75035	.06403
Q127	.20300	-.06099	.05293	.01782	.59604	.15042
Q125	.08454	.07805	.01675	-.08835	.56301	.03275
Q124	.16978	.09993	-.09190	.08339	.45824	.10166
Q113	.14364	.03071	-.04231	-.01010	.15190	.70024
Q112	.19513	.15806	-.07107	-.05791	.14633	.66223
Eigenvalues	5.16384	2.05684	1.55974	1.392132	1.04800	.79966
% of Variance	24.6	9.8	7.4	6.6	5.0	3.8
Cumulative %	24.6	34.4	41.8	48.4	53.4	57.2

APPENDIX E

Path Analyses,

Beta Coefficients and Residuals

Betas and Residuals

Mobley model — all subjects

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.90	43.21	.00
	intent to quit	.31		6.57	.00
INTENT TO QUIT			.99	6.00	.01
	search	.12		2.45	.01
SEARCH			.71	162.10	.00
	intent to search	.54		12.73	.00
INTENT TO SEARCH			.90	8.96	.00
	job satisfaction	-.02		-.31	.76
	consequence of quitting	.05		1.13	.26
	organization's need	-.05		-.93	.35
	attraction-expected utility: present job	-.15		-2.07	.04
	attraction-expected utility: alternatives	.23		4.75	.00
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.46	92.17	.00
	work involvement	.06		1.53	.13
	nonpay-related work values	.08		1.76	.08
	job involvement	-.03		-.64	.52
	job satisfaction	.66		15.62	.00
	expectation for present job	.05		1.42	.16
EXPECTATION FOR PRESENT JOB			.78	9.97	.00
	age	-.13		-2.61	.01
	tenure	-.08		-1.64	.10
	family income responsibility	.01		.26	.79
	schlep	.02		.33	.74
	adherence to rules and procedures	.21		4.41	.00
	variety	.22		4.25	.00
	task identity	.08		1.43	.15
	feedback	-.05		-.96	.34
	friendship	-.00		-.01	.99
	autonomy	.05		1.02	.31
	working with others	.13		2.14	.03
ATTRACTION-EXPECTED UTILITY: ALTERNATIVES			.95	4.51	.00
	nonpay-related work values	-.04		-.56	.58
	job involvement	-.19		-2.92	.00
	work involvement	.10		1.69	.09
	expectation for alternatives	.13		2.55	.01
	job satisfaction	-.09		-1.41	.16
EXPECTATION FOR ALTERNATIVES			.85	14.47	.00
	tenure	.11		2.16	.03
	age	-.17		-3.61	.00
	family income responsibility	.06		1.18	.24
	labor market perceptions	.36		7.71	.00
	schlep	.06		1.39	.17
JOB SATISFACTION			.42	54.63	.00
	autonomy	.20		5.34	.00
	variety	.15		3.89	.00
	task identity	.15		3.85	.00
	working with others	-.07		-1.48	.14
	feedback	.22		5.69	.00
	friendship	.17		3.73	.00
	work involvement	-.00		-.04	.97
	job involvement	.00		.06	.95
	nonpay-related work values	.30		6.57	.00
	adherence to rules and procedures	-.03		-.95	.34

**F* is associated with the outcome variable; *T* with its predictors

Betas and Residuals

Mobley model — paid workers

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.98	3.60	.06
	intent to quit	.13		1.90	.06
INTENT TO QUIT			.95	12.07	.00
	search	.23		3.47	.00
SEARCH			.72	82.74	.00
	intent to search	.52		9.10	.00
INTENT TO SEARCH			.77	12.66	.00
	job satisfaction	-.02		-.22	.82
	consequence of quitting	.14		2.28	.02
	organization's need	.01		.17	.87
	attraction-expected utility: present job	-.32		-3.45	.00
	attraction-expected utility: alternatives	.29		4.55	.00
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.44	54.93	.00
	work involvement	.02		.29	.77
	nonpay-related work values	.01		.13	.90
	job involvement	.08		1.12	.26
	job satisfaction	.66		11.54	.00
	expectation for present job	.11		2.22	.03
EXPECTATION FOR PRESENT JOB			.78	5.22	.00
	age	-.04		-.64	.52
	tenure	-.18		-2.51	.01
	family income responsibility	-.07		-1.10	.27
	schlep	.06		.86	.39
	adherence to rules and procedures	.20		3.15	.00
	variety	.11		1.52	.13
	task identity	.07		.99	.33
	feedback	.16		1.92	.06
	friendship	.07		.77	.44
	autonomy	-.01		-.08	.93
	working with others	.00		.04	.97
ATTRACTION-EXPECTED UTILITY: ALTERNATIVES			.90	5.00	.00
	nonpay-related work values	-.04		-.40	.69
	job involvement	-.27		-2.84	.00
	work involvement	.16		1.84	.07
	expectation for alternatives	.21		2.99	.00
	job satisfaction	-.10		-1.27	.21
EXPECTATION FOR ALTERNATIVES			.91	4.28	.00
	tenure	.05		.73	.47
	age	-.12		-1.67	.10
	family income responsibility	.06		.91	.36
	labor market perceptions	.25		3.86	.00
	schlep	.02		.35	.73
JOB SATISFACTION			.33	42.70	.00
	autonomy	.28		5.65	.00
	variety	.23		4.69	.00
	task identity	.10		2.20	.03
	working with others	.09		1.64	.10
	feedback	.20		3.78	.00
	friendship	.06		1.03	.30
	work involvement	-.03		-.54	.59
	job involvement	.05		.91	.36
	nonpay-related work values	.19		3.21	.00
	adherence to rules and procedures	.02		.36	.72

*F is associated with the outcome variable; T with its predictors

Betas and Residuals

Mobley model — volunteer workers

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.85	33.07	.00
	intent to quit	.39		5.75	.00
INTENT TO QUIT			.99	.27	.61
	search	.04		.52	.61
SEARCH			.70	78.40	.00
	intent to search	.55		8.85	.00
INTENT TO SEARCH			.95	1.99	.08
	job satisfaction	-.07		-.74	.46
	consequence of quitting	.07		.94	.35
	organization's need	-.13		-1.62	.11
	attraction-expected utility: present job	.02		.19	.85
	attraction-expected utility: alternatives	.14		1.97	.05
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.54	30.01	.00
	work involvement	.08		1.22	.22
	nonpay-related work values	.13		1.94	.05
	job involvement	-.09		-1.30	.19
	job satisfaction	.60		9.47	.00
	expectation for present job	.00		.08	.94
EXPECTATION FOR PRESENT JOB			.71	6.25	.00
	age	-.23		-3.08	.00
	tenure	.11		1.62	.11
	family income responsibility	.16		2.28	.02
	schlep	.01		.10	.92
	adherence to rules and procedures	.20		2.79	.01
	variety	.22		2.92	.00
	task identity	.04		.58	.57
	feedback	-.06		-.78	.44
	friendship	-.10		-1.24	.22
	autonomy	.02		.29	.77
	working with others	.19		2.09	.04
ATTRACTION-EXPECTED UTILITY: ALTERNATIVES			.98	.59	.71
	nonpay-related work values	-.02		-.25	.80
	job involvement	-.12		-1.28	.20
	work involvement	.09		1.09	.28
	expectation for alternatives	.05		.61	.54
	job satisfaction	-.03		-.34	.74
EXPECTATION FOR ALTERNATIVES			.82	7.94	.00
	tenure	.17		2.35	.02
	age	-.24		-3.33	.00
	family income responsibility	.06		.89	.37
	labor market perceptions	.31		4.42	.00
	schlep	.10		1.49	.14
JOB SATISFACTION			.55	13.91	.00
	autonomy	.13		2.08	.04
	variety	.02		.35	.73
	task identity	.18		2.77	.01
	working with others	-.19		-2.34	.02
	feedback	.24		3.68	.00
	friendship	.27		3.65	.00
	work involvement	-.02		-.24	.81
	job involvement	-.03		-.39	.70
	nonpay-related work values	.37		5.11	.00
	adherence to rules and procedures	-.05		-.89	.38

*F is associated with the outcome variable; T with its predictors

Betas and Residuals

Augmented model — all subjects

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.90	43.21	.00
	intent to quit	.31		6.57	.00
INTENT TO QUIT			.99	6.00	.01
	search	.12		2.45	.01
SEARCH			.71	162.10	.00
	intent to search	.54		12.73	.00
INTENT TO SEARCH			.97	3.55	.01
	intent to alter involvement	.09		1.76	.08
	consequence of quitting	.03		.67	.50
	organization's need	-.11		-2.16	.03
INTENT TO ALTER INVOLVEMENT			.88	10.97	.00
	job satisfaction	.04		.51	.61
	consequence of quitting	-.06		-1.23	.22
	attraction-expected utility: alternatives	.07		1.54	.12
	organization's need	-.15		-2.83	.01
	attraction-expected utility: present job	-.26		-3.76	.00
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.57	59.94	.00
	work involvement	-.01		-.29	.77
	nonpay-related work values	.20		3.90	.00
	job involvement	-.11		-2.14	.03
	organizational commitment	.56		11.12	.00
	expectation for present job	.05		1.20	.23
EXPECTATION FOR PRESENT JOB			.78	9.97	.00
	age	-.13		-2.61	.01
	tenure	-.08		-1.64	.10
	family income responsibility	.01		.26	.79
	schlep	.02		.33	.74
	adherence to rules and procedures	.21		4.41	.00
	variety	.22		4.25	.00
	task identity	.08		1.43	.15
	feedback	-.05		-.96	.34
	friendship	-.00		-.01	.99
	autonomy	.05		1.02	.31
	working with others	.13		2.14	.03
ATTRACTION-EXPECTED UTILITY: ALTERNATIVES			.93	6.10	.00
	nonpay-related work values	.01		.16	.88
	job involvement	-.16		-2.44	.02
	work involvement	.13		2.14	.03
	expectation for alternatives	.11		2.22	.03
	organizational commitment	-.20		-3.09	.00
EXPECTATION FOR ALTERNATIVES			.85	14.47	.00
	tenure	.11		2.16	.03
	age	-.17		-3.61	.00
	family income responsibility	.06		1.18	.24
	labor market perceptions	.36		7.71	.00
	schlep	.06		1.39	.17
JOB SATISFACTION			.62	245.66	.00
	organizational commitment	.62		15.67	.00
ORGANIZATIONAL COMMITMENT			.52	36.25	.00
	autonomy	.02		.57	.57
	variety	.13		2.98	.00
	task identity	.09		2.08	.04
	working with others	-.12		-2.34	.02
	feedback	.11		2.46	.01
	friendship	.08		1.67	.10
	work involvement	.14		3.05	.00
	job involvement	.16		3.25	.00
	nonpay-related work values	.32		6.25	.00
	adherence to rules and procedures	.10		2.59	.01

*F is associated with the outcome variable; T with its predictors

Betas and Residuals

Augmented model — paid workers

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.98	3.60	.06
	intent to quit	.13		1.90	.06
INTENT TO QUIT			.95	12.07	.00
	search	.23		3.47	.00
SEARCH			.72	82.74	.00
	intent to search	.52		9.10	.00
INTENT TO SEARCH			.97	2.00	.12
	intent to alter involvement	.11		1.52	.13
	consequence of quitting	.03		.39	.70
	organization's need	-.10		-1.41	.16
INTENT TO ALTER INVOLVEMENT			.83	8.47	.00
	job satisfaction	.08		.80	.42
	consequence of quitting	.05		.82	.41
	attraction-expected utility: alternatives	.05		.77	.44
	organization's need	-.19		-2.61	.01
	attraction-expected utility: present job	-.35		-3.67	.00
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.55	35.46	.00
	work involvement	-.08		-1.28	.20
	nonpay-related work values	.17		2.52	.01
	job involvement	-.03		-.43	.67
	organizational commitment	.56		8.00	.00
	expectation for present job	.11		1.98	.05
EXPECTATION FOR PRESENT JOB			.88	5.22	.00
	age	-.04		-.64	.52
	tenure	-.18		-2.51	.01
	family income responsibility	-.07		-1.10	.27
	schlep	.06		.86	.39
	adherence to rules and procedures	.20		3.15	.00
	variety	.11		1.52	.13
	task identity	.07		.99	.33
	feedback	.16		1.92	.06
	friendship	.07		.77	.44
	autonomy	-.01		-.08	.93
	working with others	-.00		-.04	.97
ATTRACTION-EXPECTED UTILITY: ALTERNATIVES			.85	7.21	.00
	nonpay-related work values	.02		.23	.82
	job involvement	-.20		-2.05	.04
	work involvement	.18		2.24	.03
	expectation for alternatives	.18		2.62	.01
	organizational commitment	-.28		-3.40	.00
EXPECTATION FOR ALTERNATIVES			.91	4.28	.00
	tenure	.05		.73	.47
	age	-.12		-1.67	.10
	family income responsibility	.06		.91	.36
	labor market perceptions	.25		3.86	.00
	schlep	.02		.35	.73
JOB SATISFACTION			.65	118.95	.00
	organizational commitment	.59		10.91	.00
ORGANIZATIONAL COMMITMENT			.48	22.68	.00
	autonomy	.11		1.77	.08
	variety	.08		1.41	.16
	task identity	.06		1.09	.28
	working with others	-.01		-.11	.91
	feedback	.21		3.34	.00
	friendship	-.11		-1.54	.13
	work involvement	.08		1.34	.18
	job involvement	.32		4.43	.00
	nonpay-related work values	.18		2.46	.01
	adherence to rules and procedures	.17		3.28	.00

*F is associated with the outcome variable; T with its predictors

Betas and Residuals

Augmented model — volunteer workers

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.85	33.07	.00
	intent to quit	.39		5.75	.00
INTENT TO QUIT			.99	.27	.61
	search	.04		.52	.61
SEARCH			.70	78.40	.00
	intent to search	.55		8.85	.00
INTENT TO SEARCH			.97	2.02	.11
	intent to alter involvement	.07		.97	.34
	consequence of quitting	.08		1.05	.29
	organization's need	-.13		-1.69	.09
INTENT TO ALTER INVOLVEMENT			.89	4.43	.00
	job satisfaction	-.04		-.37	.71
	consequence of quitting	.06		.80	.42
	attraction-expected utility: alternatives	.11		1.49	.14
	organization's need	-.12		-1.57	.12
	attraction-expected utility: present job	-.21		-2.03	.04
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.67	17.46	.00
	work involvement	.05		.70	.49
	nonpay-related work values	.21		2.74	.01
	job involvement	-.16		-2.02	.04
	organizational commitment	.46		6.20	.00
	expectation for present job	.01		.16	.87
EXPECTATION FOR PRESENT JOB			.71	6.25	.00
	age	-.23		-3.08	.00
	tenure	.11		1.62	.11
	family income responsibility	.16		2.28	.02
	schlep	.01		.10	.92
	adherence to rules and procedures	.20		2.79	.01
	variety	.22		2.92	.00
	task identity	.04		.58	.57
	feedback	-.06		-.78	.44
	friendship	-.10		-1.24	.22
	autonomy	.02		.29	.77
	working with others	.19		2.09	.04
ATTRACTION-EXPECTED UTILITY: ALTERNATIVES			.98	.57	.72
	nonpay-related work values	-.03		-.29	.77
	job involvement	-.11		-1.24	.22
	work involvement	.09		1.09	.28
	expectation for alternatives	.04		.55	.59
	organizational commitment	-.02		-.24	.81
EXPECTATION FOR ALTERNATIVES			.82	7.94	.00
	tenure	.17		2.35	.02
	age	-.24		-3.33	.00
	family income responsibility	.06		.89	.37
	labor market perceptions	.31		4.42	.00
	schlep	.10		1.49	.14
JOB SATISFACTION			.69	81.34	.00
	organizational commitment	.56		9.02	.00
ORGANIZATIONAL COMMITMENT			.61	11.08	.00
	autonomy	-.09		-1.44	.15
	variety	.06		.87	.39
	task identity	.11		1.52	.13
	working with others	-.16		-1.95	.05
	feedback	.04		.59	.56
	friendship	.25		3.22	.00
	work involvement	.12		1.72	.09
	job involvement	.06		.73	.47
	nonpay-related work values	.40		5.27	.00
	adherence to rules and procedures	.05		.78	.44

*F is associated with the outcome variable; T with its predictors

Betas and Residuals

Trimmed model — all subjects

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.84	25.71	.00
	family income responsibility	-.18		-3.81	.00
	tenure	-.13		-2.69	.01
	intent to quit	.31		6.60	.00
INTENT TO QUIT			.79	52.88	.00
	attraction-expected utility: present job	-.16		-3.38	.00
	intent to alter involvement	.38		8.19	.00
INTENT TO ALTER INVOLVEMENT			.82	22.41	.00
	organizational commitment	-.06		-.92	.36
	attraction-expected utility: present job	-.18		-3.13	.00
	tenure	.18		3.92	.00
	job involvement	-.21		-4.00	.00
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.41	188.62	.00
	organization's need	.08		2.20	.03
	job satisfaction	.52		12.28	.00
	organizational commitment	.29		6.91	.00
JOB SATISFACTION			.38	107.25	.00
	autonomy	.26		7.82	.00
	organizational need	.10		3.07	.00
	nonpay-related work values	.17		3.92	.00
	feedback	.22		6.30	.00
	friendship	.12		3.26	.00
	organizational commitment	.30		7.43	.00
ORGANIZATIONAL COMMITMENT			.50	64.80	.00
	age	.21		5.42	.00
	adherence to rules and procedures	.09		2.42	.02
	organization's need	.16		4.04	.00
	tenure	-.21		-5.67	.00
	nonpay-related work values	.36		7.87	.00
	job involvement	.29		6.71	.00

* *F* is associated with the outcome variable; *T* with its predictors

Betas and Residuals

Trimmed model — paid employees

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.97	2.37	.07
	family income responsibility	-.13		-1.82	.07
	intent to quit	.11		1.65	.10
	tenure	.07		.99	.32
INTENT TO QUIT			.84	20.69	.00
	attraction-expected utility: present job	-.19		-2.82	.01
	intent to alter involvement	.29		4.35	.00
INTENT TO ALTER INVOLVEMENT			.79	14.55	.00
	tenure	.23		3.60	.00
	job involvement	-.16		-2.05	.04
	attraction-expected utility: present job	-.22		-2.80	.01
	organizational commitment	-.08		-.84	.40
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.39	112.48	.00
	organizational commitment	.32		6.04	.00
	job satisfaction	.56		9.93	.00
	organization's need	-.03		-.54	.59
JOB SATISFACTION			.33	73.25	.00
	autonomy	.33		7.73	.00
	organizational need	.16		3.48	.00
	nonpay-related work values	.16		3.11	.00
	friendship	.14		2.87	.00
	organizational commitment	.22		4.31	.00
	feedback	.18		3.51	.00
ORGANIZATIONAL COMMITMENT			.50	35.83	.00
	age	.08		1.61	.11
	organization's need	.14		2.56	.01
	adherence to rules and procedures	.14		2.61	.01
	tenure	-.23		-4.53	.00
	nonpay-related work values	.25		3.81	.00
	job involvement	.37		6.17	.00

**F* is associated with the outcome variable; *T* with its predictors

Betas and Residuals

Trimmed model — volunteer employees

<i>Outcome Variable</i>	<i>Predictor Variable</i>	<i>beta</i>	<i>1 - R²</i>	<i>F or T*</i>	<i>Sig</i>
TURNOVER			.78	17.29	.00
	family income responsibility	-.16		- 2.42	.02
	tenure	-.18		-2.72	.01
	intent to quit	.39		5.91	.00
INTENT TO QUIT			.72	35.86	.00
	attraction-expected utility: present job	-.19		-2.89	.00
	intent to alter involvement	.45		6.78	.00
INTENT TO ALTER INVOLVEMENT			.74	15.56	.00
	tenure	.20		3.13	.00
	attraction-expected utility: present job	-.15		-1.98	.05
	job involvement	-.26		-3.83	.00
	organizational commitment	-.19		-2.30	.02
ATTRACTION-EXPECTED UTILITY: PRESENT JOB			.48	65.21	.00
	organization's need	.20		3.69	.00
	job satisfaction	.50		8.04	.00
	organizational commitment	.22		3.48	.00
JOB SATISFACTION			.51	28.74	.00
	autonomy	.19		3.54	.00
	organizational commitment	.36		5.49	.00
	feedback	.27		4.67	.00
	nonpay-related work values	.16		2.31	.02
	friendship	.09		1.37	.17
	organization's need	.06		1.07	.29
ORGANIZATIONAL COMMITMENT			.62	18.20	.00
	age	.26		3.93	.00
	nonpay-related work values	.44		6.51	.00
	organization's need	.15		2.45	.02
	job involvement	.23		3.30	.00
	adherence to rules and procedures	.05		.85	.40
	tenure	-.08		-1.27	.21

* *F* is associated with the outcome variable; *T* with its predictors

Autobiographical Statement

Margaret Carson Zimmerman was born in Toronto, Ontario, Canada on December 1, 1936. She received a Bachelor of Arts degree in English and History from the University of Western Ontario, London, Ontario, Canada, in 1962. In May, 1979, she earned a Master of Science degree from Old Dominion University, Norfolk, Virginia.

Upon graduation from college she worked as a copywriter in advertising agencies in Detroit, Michigan and in Providence, Rhode Island. From 1964 until 1970, she served as an officer in the United States Army. Her interest in organizational psychology stems from this period.

She was selected as a Teaching Fellow in the Department of Psychology, Old Dominion University in 1981 and began teaching full time as an Assistant Professor of Psychology at Virginia Wesleyan College, Norfolk, Virginia during the spring semester, 1982, and has taught there full time ever since. She was elected to membership in Psi Chi in 1983.