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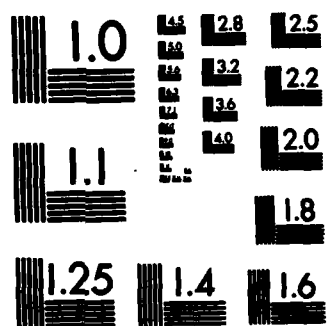
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WORK AND CAREER CONSIDERATIONS IN UNDERSTANDING
EMPLOYEE TURNOVER INTENTIONS AND TURNOVER:
DEVELOPMENT OF THE TURNOVER DIAGNOSTIC

THOMAS M. MITCHELL
BENJAMIN SCHNEIDER

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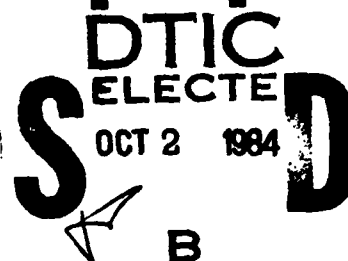
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20. Organizational Status, Career Facilitation, and Skill Utilization. In Study 2, the measure, with the addition of two new scales (Coworkers, Reward Orientation), was used to predict turnover behavior ($R = .26$) among employees ($N = 381$) of a retail organization. The addition of job satisfaction and turnover intentions to the scales increased the predictability of turnover in study 2 to $R = .35$. The use and potential of the criterion keying methodology as well as some methodological problems associated with doing turnover research are discussed.

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Work and Career Considerations in
Understanding Employee Turnover Intentions and Turnover:
Development of the Turnover Diagnostic^{1,2}

Thomas M. Mitchell
Colorado State University
Benjamin Schneider
University of Maryland

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Abstract

Two studies are reported in which some correlates of turnover intentions and turnover behavior were investigated. In Study 1, a criterion-keying technique (against turnover intentions) was used to select 31 items from a pool of 90 items pertaining to employees' (N = 911 from 14 organizations) perceptions of organization-wide, job, task, and career conditions. Principal components analysis of the 31 items yielded 5 dimensions correlated with turnover intentions ($R = .55$): Supervision, Work Inhibition, Organizational Status, Career Facilitation, and Skill Utilization. In Study 2, the measure, with the addition of two new scales (Coworkers, Reward Orientation), was used to predict turnover behavior ($R = .27$) among employees (N = 381) of a retail organization. The addition of job satisfaction and turnover intentions to the scales increased the predictability of turnover in study 2 to $R = .35$. The use and potential of the criterion keying methodology as well as some methodological problems associated with doing turnover research are discussed.

Work and Career Considerations in

Understanding Employee Turnover Intentions and Turnover:

Development of the Turnover Diagnostic

The search for the correlates of turnover has concentrated on two major classes of variables: measures of job satisfaction, and indices of demographic-individual difference (biodata). These efforts have been based on the assumption that the participation and withdrawal behaviors of organizational members can be understood in terms of their satisfaction with the here-and-now attributes of the setting or on the basis of their personal characteristics.

While there have been a number of major reviews of the psychology of turnover (Brayfield & Crockett, 1955; Herzberg, Mausner, Peterson, & Capwell, 1957; Mobley, 1982; Mobley, Hand, Meglino, & Griffeth, 1979; Muchinsky & Tuttle, 1979; Porter & Steers, 1973; Price, 1977; Schuh, 1967; Vroom, 1964), Mobley (1982) suggests that the search for the correlates of turnover be abandoned. However, both the satisfaction and biodata/individual differences approaches to understanding turnover have been useful because it is now clear that predictors of turnover can be developed which concentrate either on job satisfaction (e.g., Mobley et al., 1979; Vroom, 1964) or on personal attributes, especially biodata (e.g., Arnold & Feldman, 1982; Dunnette, Kirchner, Erickson, & Banas, 1960).

Mobley and his colleagues' (e.g., Mobley, 1977; Mobley, Horner, & Hollingsworth, 1978; Mobley et al., 1979) efforts have resulted in the development of a cognitive/processual model for understanding the different kinds of elements people may consider during the turnover decision-making process. In this model, Mobley and his collaborators have identified job satisfaction/dissatisfaction as the "conditional causal agent" in the withdrawal process (Mobley et al., 1979). Although Mobley et al. include job-related perceptions in their model as

antecedents of job satisfaction/dissatisfaction, they do not emphasize the role of these perceptions as contributing factors to withdrawal intentions or behavior. In contrast, the purpose of the present paper is to examine employee perceptions of various facets of their organization in the hope of isolating some perceptions of the work setting that are correlates of turnover. Rather than looking inside the person for cognitive processes, then, following the logic of Katz and Kahn (1978) and Schein (1980), the present approach rests on the assumption that because people leave systems, perceptions of the systems attributes correlated with turnover and/or turnover intentions are the necessary foci of research.

Potential Systems Correlates of Turnover

For comprehensiveness, the systems attributes chosen for investigation were general organizational level practices and procedures (e.g., management philosophy, reward practices), job factors (e.g., supervision, coworkers), task attributes (e.g., variety, autonomy) and organizational career development practices. The choice of organization, job, and task foci was based on the delineation of these by Porter and Steers (1973) as all being correlates of turnover and the assumption that these constituted a relatively comprehensive set of potential systems correlates. Organizational career development practices were included because turnover has a future orientation in that employers move to another setting as well as move from a setting (Forrest, Cummings & Johnson, 1977; Mobley, 1982).

As will become clear in the very brief literature review that follows, a major difference between the present effort and past turnover research is that all four of these systems issues were explored concurrently as potential contributors to understanding turnover. In addition, the data on which development of the Turnover Diagnostic was based came from a relatively large sample of employees working at many different jobs in many different settings. The introduction of job

and systems variance, it was hoped, would yield a measure that would be useful across settings.

The organization. Relatively little research has examined organizational practices and/or reactions to the company as a whole as correlates of turnover. A few studies, however, provide support for inclusion of such issues. DePasquale and Lange (1971), Dunnette, Arvey, and Banas (1973), and Schein (1971), for example, all reported that MBA's cited lack of organizational programs and procedures for MBA utilization and growth as a primary cause of turnover. A number of other researchers have noted that organizations perceived not to link rewards to performance had higher turnover (Hellriegel & White, 1973; Hulin, 1966, 1968; Telly, French, & Scott, 1971). Similarly, some company policy and administrative issues related to pay and promotion (Hellriegel & White, 1973; Hulin, 1966, 1968; Schneider, 1973) have also been tied to turnover.

Structural characteristics (e.g., size, centralization) appear not to have been examined as correlates of turnover but, as Wanous, Stumpf and Bedrosian (1979) have noted, there is little reason to suspect that they will predict turnover across settings and no reason to suspect (due to range restriction) that turnover within a setting will be predicted by these macro attributes. Thus, the present effort focused on a wide range of organizational processes (personnel, pay, managerial philosophy) and sampled from a wide variety of kinds of organizations.

The job. Whereas most people who leave their jobs actually leave an entire organization, the emphasis in turnover research has been on immediate job issues such as supervision, and work-group interpersonal relationships. Many studies support the hypothesis that supervisory practices are a strong correlate of turnover (Dansereau, Cashman, & Graen, 1973; Fleishman & Harris, 1962; Graen & Ginsburgh, 1977; Hellriegel & White, 1973; Hulin, 1968). However, several studies have reported a non-significant relationship (Koch & Steers, 1978; Mobley et al.,

1978; Waters, Roach, & Waters, 1976).

A second job factor receiving considerable attention in turnover research is the nature of interpersonal relations but there is conflicting evidence regarding the inclusion of the work group as an important turnover correlate: Some researchers have shown support for group issues (Evan, 1963; Hellriegel & White, 1973; Hulin, 1968), but a larger number of studies reveal no evidence to support the importance of work group factors as correlates of turnover (Koch & Steers, 1978; Kraut, 1975; Marsh & Mannari, 1977; Mobley et al., 1978; Schneider & Snyder, 1975). Both supervision and interpersonal relationships were represented in the pool of job issues used in this project.

The task. Task, or job content, issues are consistently strong correlates of turnover and there exists a large literature supporting the conclusion that those people who have more intrinsically rewarding tasks are less likely to leave (Koch & Steers, 1978; Kraut, 1975; Mobley et al., 1979). More descriptively, people who perceive their work as interesting/challenging (Bray, Campbell, & Grant, 1974), as having low repetitiveness/high variety (Price, 1977), as allowing them to exercise responsibility and autonomy (DePasquale & Lange, 1971; Marsh & Mannari, 1977), as providing the opportunity to use their abilities (Dunnette et al., 1973; Hellriegel & White, 1973), and who feel the work they are doing is significant (Ross & Zander, 1957) are less likely to become turnovers. In this study the range of job content issues identified in the job characteristics literature were assessed (Hackman & Lawler, 1971; Hackman & Oldham, 1975).

The organizational career. As noted earlier, research on turnover has tended to stress the retrospective rather than the prospective (Mobley, 1982). Increasingly, however, employees seem to be concerned with the way organizations manage what Hall (1976) calls the organizational career. There are very few studies, although considerable verbiage, that reference the role of the

organization in facilitating employee career development (i.e., through counseling, placement, training, etc.) in relationship to turnover. However, Graen, Orris, and Johnson (1973) did show that when non-academic university employees were in jobs that they perceived to be relevant to their own work career, then they were more satisfied, better performers, and less likely to leave the organization than those who saw their jobs as unrelated to their work career.

Summary. The research literature is quite clear regarding the role of job and task factors as correlates of turnover; less clear are the roles of more macro general organization practices and procedures and those specifically relevant to career development practices. The goals of the present effort were to first develop measures of the various facets of each of these four issues (see Schneider & Dachler, 1978 for details), to then identify those facets of organizational, job, task, and career considerations that are correlated with turnover intentions, and to produce a measure useful for studying both turnover intentions and turnover.

Two studies were conducted to achieve these goals. The first study focused on perceived systems correlates of turnover intentions in an attempt to isolate a relatively comprehensive subset of organizational facets keyed to turnover intentions. The goal of Study 1 was the development of a "Turnover Diagnostic," an organizational diagnostic instrument keyed ultimately to the prediction of turnover but focusing on the more proximal criterion of turnover intentions. The focus on intentions as a criterion seemed justified based on theory (Fishbein & Ajzen, 1975; Mobley et al., 1979), the consistent finding that such intentions are the strongest correlate of actual turnover (Hom, Katerberg, & Hulin, 1979; Kraut, 1975; Miller, Katerberg, & Hulin, 1979; Mobley et al., 1978; Newman, 1974; Waters et al., 1976), and the fact that in a multi-organization study like Study 1, turnover intentions are more likely to have a common meaning than actual turnover. In a sense, then, intentions are more equatable from setting to setting than is turnover

because intentions are relatively less contaminated by factors outside the individual's control (e.g., labor market conditions).

Study 2 entailed the use of the Turnover Diagnostic to predict actual turnover in a single organization.

Study 1: Method

Sample

A survey was used to collect data from employees in 14 different organizations and from a number of classes of MBA students for a total sample of 911. A wide variety of organizations (food processing, farm, bank, police department, public utility, airline) and a wide variety of jobs (140 different Dictionary of Occupational Title codes) were represented (see Schneider, Reichers, & Mitchell, 1982 for more details). The sample was 78% white and 62% male. The response rate was slightly greater than 80%. Almost all surveys were administered on-site to volunteers by a trained administrator.

Procedure

The survey that was developed was derived from a longer survey constructed by Schneider and Dachler (1978). For each major section of the survey, an attempt was made to capture the general thrust of then-current (early 1970s) thinking about the important facets that defined the issue. For example, the 25 items of the Task section were patterned after Hackman and Lawler's (1971) task attributes; the Job section concentrated on work climate issues (e.g., Schneider & Bartlett, 1968) and leadership/supervision factors (e.g., House & Mitchell, 1974). For the eight-item career section, the items were written to reflect Hall's (1976, p. 177) description of the ways organizational policies and practices can help/hinder employees' career progress.

The directions provided for the respondents tried to create a "turnover response set" by having the respondents answer the questions as if they were

considering staying with or leaving the organization. In addition, for the four sections of the survey asking for descriptions of work and career issues, respondents were asked to be descriptive of what happened to them and around them in their organization rather than tell their feelings about the setting. Thus, a clear distinction was made for respondents between description (or belief) and affect (Schneider, 1975). Responses to all items were made on a 5-point scale of frequency ranging from Very Frequently through Sometimes to Very Infrequently.

Data Analyses

The major data analysis strategy adopted was criterion-keying. In adopting this methodology, the aim was to "key" the longer survey based on correlations between item responses and turnover intentions. The latter item was a 5-point scale as follows: 1 = strongly inclined to stay; 2 = inclined to stay; 3 = neither inclined to stay or leave; 4 = inclined to leave; and 5 = strongly inclined to leave. Evidence from earlier analyses revealed that this item has good measurement properties: Responses are normally distributed near the midpoint ($M = 2.42$), and it correlated well (.68) with another turnover intention item (which was time-bounded, e.g., "stay at least 6 months," so was not included here).

The total sample of 911 was randomly (odd-even) split into two samples and, in each, all item responses were correlated with turnover intentions. Any item that correlated $\pm .15$ with the turnover intention criterion in both samples was retained for further analysis. Forty-nine items (54 percent of the total item pool of 90 items) met the $\pm .15$ criterion in both samples. The 49 items were then submitted to a principal components analysis (PA2 in SPSS) with Varimax rotation for half the sample. Items loading most highly on each of the factors were used to identify scales. The scales were created and used in multiple regression analyses against the turnover intention criterion in the other subsample. That is, the scales for analyses against turnover intentions were created in the subsample not

involved in the selection of items for scales.

Study 1: Results

The results of the criterion-keying strategy revealed that not all items from the four a priori sections met the $\pm .15$ correlation criterion with turnover intentions for inclusion in additional analyses: career issues are most strongly reflected in turnover (100% of the items were retained), followed by the organization (63%) and job (63%) sections. Only 20% of the items regarding task content met the $\pm .15$ criterion for inclusion in further analyses.

Principal Components Analysis

Results from the principal components analysis with Varimax rotation of the 49 items which met the $\pm .15$ criterion for inclusion revealed that; 31 items defined the five factors isolated for interpretation. A five-factor solution was retained based on interpretability, simple structure, and a scree plot for rate of decline in eigenvalues. These 31 items were used to create the five scales that were used in subsequent multiple regression analyses.

Factor 1 was called Work Inhibition (Inhibition) and contained items that reflect organizational and job events or conditions that inhibit or interfere with task performance. These included such issues as the organization hiring people unable to do their work, conditions existing which do not permit goal accomplishment, confusion on the job, and so forth.

The second factor was called Supervision. Items loading most heavily on this factor involve the extent to which supervisors share information, give feedback, establish reward contingencies, and clarify goals.

Factor 3 (Career) concerned the extent to which organizational policies and procedures reveal policies and practices relevant for the career growth of employees through career path information and counseling.

Items loading most heavily on Factor 4 (Status), had to do with the status

and image the organization is perceived (by insiders) to have in the eyes of outsiders.

Skill utilization (Skill), the fifth factor, was defined by four items about the extent to which respondents perceive that their jobs require high levels of skill (two items) and the extent to which newcomers are assisted in acquiring the skills they need to be successful (two items).

Scale Characteristics and Correlations with Turnover Intentions

Table 1 presents scale means, standard deviations, internal consistency reliability estimates (Cronbach alpha), intercorrelations, and correlations with turnover intentions for the five factor-analytically derived scales for the hold-out sample.

Insert Table 1 about here

Work Inhibition, Supervision, and Career Facilitation are the strongest correlates of turnover intentions (r 's = .39, -.40, and -.45, respectively) with the other two factors correlating -.35 with those same intentions. The average inter-scale correlation for the five dimensions is .40 with the Supervision dimension being the only one with inter-scale correlations above .50. The internal consistency estimate for the 4-item scale (Skill) is lower than would be desirable (.57) while the internal consistency estimates for the other four scales range from .66 (Status) to .83 (Supervision).

Multiple Regression Analysis

The results for the regression analysis on turnover intentions are presented in Table 2. As can be seen in Table 3, four of the five variables (all but Supervision) in the regression equation contribute significantly as correlates of turnover intentions. for a $R = .545$; $F(5,444) = 37.50$, $p < .001$.

Insert Table 2 about here

Study 1: Discussion

The basic premise of this research effort was that the understanding of withdrawal behavior in organizations, and its cognitive precursors such as turnover intentions, is enhanced by assessing employees' perceptions of the various facets of the social system in which their behavior is embedded. The results of Study 1 suggest that the current approach is a viable way of examining the organizational, job, task, and career factors associated with turnover intentions. The predictive power of this multiple regression model ($R = .545$) appears to be superior or equal to that of other studies of turnover intentions using multiple regression — .36 (Alley & Gould, 1975), .40 (Martin, 1979), .47 (Parker & Dyer, 1977), and .52 (Price & Bluedorn, 1977).

Perhaps the most interesting outcome of Study 1 was the emergence of two variables that were strongly related to turnover intentions that have not been previously identified in the turnover research literature: Career Facilitation and Work Inhibition⁴. Several researchers (e.g., Bartol & Manhardt, 1979; Graen & Ginsburgh, 1977; Graen et al., 1973) have examined the role orientation/salience of careers to employees as correlates of turnover. A review of the relevant literatures, however, did not uncover any studies that revealed a relationship between perceptions of organizational career development practices and procedures and the turnover intentions of employees.

The second most predictive variable, in a multiple regression sense, was Work Inhibition. Peters, O'Connor, and Rudolf (1980) presented an analogous finding when they demonstrated that performance and affective responses in a laboratory task were affected by conditions which inhibited task performance. In

the present research it was shown that the perception of conditions in the work environment that interfered with successful task performance (e.g., coworkers being unable to handle their jobs, goal conflict among work groups and departments, supervisors not knowing what their subordinates want, etc.) were strongly related to turnover intentions.

Another interesting finding was the identification of perceived Organizational Status as a significant predictor of turnover intentions. This suggests that organizational members may accrue rewards not directly mediated by the organization by virtue of their organizational membership which may, in turn, affect their decisions regarding staying in or leaving their organization. This may mean, for example, that what family and friends think of an individual's organization may exert a significant influence on withdrawal cognitions and behavior.

Study 2

The results obtained in Study 1 indicated that it was possible to use a criterion-keying strategy to develop an instrument that is strongly correlated with turnover intentions. The obvious next step was to use the Turnover Diagnostic to predict actual turnover; Study 2 was undertaken to do this.

In addition to using the Turnover Diagnostic scales as predictors of turnover, measures assessing job satisfaction and turnover intentions were also used as predictors. These two additional items were included because the previous literature suggests their inclusion would make it possible to maximally predict turnover.

Study 2: Method

Sample

"Eyes" is a nationwide firm that specializes in retail optical services. Employees work in small "stores" of 1-5 employees. Four hundred seventeen

doctors, department managers, and dispensers participated in Study 2, representing a 59 percent response rate.

Procedure

The Turnover Diagnostic was embedded in a longer survey that assessed a number of organizationally relevant issues. Some minor modifications in the wording of items was accomplished to make it more relevant to the respondents. More major modifications involved adding a few new items to certain scales to hopefully improve internal consistency reliability, (especially for Skill), deleting items considered to be redundant and/or nonrelevant, (especially on Inhibition) and adding two new scales. The implementation of these modifications was based on information gathered from interviews with managers and employees at Eyes. It was concluded that two significant issues that seemed to be related to thinking about quitting were: (1) the extent to which rewards were provided for good performance, (Reward) and (2) the nature of interactions with coworkers (Coworkers). For the Reward scale, the issues concerned how employees have to fight for a raise and the extent to which rewards are directly related to performance. For the Coworker scale, items were written to assess how personal friendships develop and how much people here help each other out on the job. In total the Turnover Diagnostic used at Eyes had 33 items distributed among seven scales.

One could question the addition of two new scales and changes in wording when a goal of the development of the Turnover Diagnostic was usefulness across settings. That is, if a measure is generalizable across settings why change it? Two major considerations prompted our decision: (1) measures that are empathetic with respect to the language and issues of a setting yield more valid data (Alderfer & Brown, 1972), and (2) the goal of the Turnover Diagnostic is to provide a foundation for diagnosing some work and career correlates of turnover,

not to provide the (only) measure predictive of turnover. So, we used Eyes' language for references to particular supplies (lens cream), titles (dispenser) and so on, and added scales tapping issues raised by employees so that the actual diagnostic used was both meaningful to employees and comprehensive. It should be noted parenthetically that the five scales isolated in Study 1 were relevant to Eyes and to organizations used in subsequent studies (e.g., Schneider & Bowen, in press).

As noted earlier, the Turnover Diagnostic was embedded in a larger questionnaire. This questionnaire was distributed to respondents by mail. Respondents completed the questionnaire by themselves (there was no group administration) and returned the questionnaire site by mail. No turnover response set (as was used in Study 1) was employed in Study 2.

Measures in Addition to Turnover Diagnostic

Satisfaction. Job satisfaction was assessed by the use of the Faces Scale, originally developed by Kunin (1955). The version used here (six faces) was developed by Dunham and Herman (1975), who modified Kunin's scale by adding female faces.

Turnover intentions. Employee turnover intentions were assessed by the same single item used in Study 1 (1 - strongly inclined to stay; 2 = inclined to stay; 3 = neither inclined to stay or leave; 4 = inclined to leave; 5 = strongly inclined to leave).

Turnover. The membership status of the employees who responded to the Turnover Diagnostic was assessed one year after survey administration. At the time of survey administration, identification numbers matched to employee names were assigned to each respondent. One year later the Personnel Department provided information pertaining about changes in staff. At Eyes the total original sample size was 417; one year later it was as follows: still employed (N = 330,

79.1%); voluntarily resigned ($N = 51$, 12.2%); terminated ($N = 29$, 7.0%); deceased ($N = 4$, 1.0%); laid off ($N = 2$, 0.5%); retired ($N = 1$, 0.2%). All analyses reported, except where explicitly noted, are of the "still employed" and "voluntarily resigned" groups only ($N = 381$).

Study 2: Results

A comparison of the two versions (Study 1 and Study 2) of the Turnover Diagnostic revealed no major differences in scale means, standard deviations, and internal consistency reliability estimates across the two versions (see Tables 1 and 3). Principal components analysis of the version of the Turnover Diagnostic used in Study 2 revealed that the same basic factor structure obtained in the original version of the instrument was found in the modified version (i.e., a seven factor solution was obtained — the five original factors and the two new factors).

Insert Table 3 about here

The correlations among the Turnover Diagnostic scales, job satisfaction, turnover intentions, and turnover are presented in Table 3 (these data are based on the total sample of 417 except for the correlations with turnover). The Turnover Diagnostic average inter-scale correlations are .35. These are slightly lower than the average inter-scale correlations for the Study 1 version of the Turnover Diagnostic ($r = .40$).

As can be seen in Table 3 the correlations between the turnover diagnostic scales and turnover intentions are substantially the same as Study 1. However, several unexpected findings emerged from the zero-order correlational analyses. First, there was a relatively low turnover intentions-turnover correlation ($r = .31$). This value is substantially lower than the average correlation between intentions and turnover that has been reported in other studies (e.g., Hom et al.,

1979, $r = .67$; Mobley et al., 1978, $r = .49$). As a result, a second unexpected and admittedly disappointing finding involved the generally low magnitude correlations between the turnover diagnostic scales and turnover ($r = .10$). That is, it is obvious that a measure designed to be predictive of turnover intentions cannot be predictive of turnover when intentions are not themselves strongly related to turnover.

The results of a hierarchical regression analysis, entering the Turnover Diagnostic scales first, are presented in Table 4. The order in which the predictor variables were brought into the hierarchical analysis reflects the idea that the Turnover Diagnostic scales are logically antecedent of satisfaction and intentions (Fishbein & Ajzen, 1975; Mobley et al., 1979). Thus the Turnover Diagnostic scales, representing perception/belief variables, were entered first, followed by the satisfaction measure and then intentions.

Insert Table 4 about here

As can be seen, the Turnover Diagnostic scales, are, in combination, clearly significant predictors of voluntary turnover. The Turnover Diagnostic itself has a multiple correlation of $R = .26$ ($F(7,374) = 3.66$, $p .001$), with turnover. Within this equation, four Turnover Diagnostic scales have statistically significant beta weights: Inhibition, Coworker, Reward, and Skill. Because the scales are intercorrelated to a significant extent, it is not possible to make unequivocal statements about which of the scales makes the greatest contribution to prediction although Reward and Inhibition do have the highest zero-order correlations with turnover ($r = -.18$ and $r = .16$, respectively). Adding the global job satisfaction measure and the turnover intentions item yields a significant multiple correlation with voluntary turnover ($R = .353$; $F(9,371) = 5.71$, $p .001$).

Discussion

A major contribution of these studies was the development (or, more precisely the application) of a methodology for isolating the perceptions of work and career developmental practices that correlate with turnover intentions and turnover. The criterion keying process was able to isolate a subset of issues that proved useful as correlates of turnover intentions and provided a firm foundation for generalizing the Turnover Diagnostic to other settings. In particular, isolation of Career, Work Inhibition, and Status issues as important and consistent correlates of turnover intentions suggest avenues for additional research efforts.

A question that naturally comes to mind is why it was relatively difficult to accurately predict turnover in Study 2 ($R=.26$) given the moderately high predictability of turnover intentions in Study 1 ($R=.555$). One set of reasons involves statistical considerations. For example, in Eyes there was a relatively low turnover intentions-turnover correlation ($r=.31$). In other published research, this correlation has generally been greater in magnitude, often significantly so (cf. Hom et al., 1979). As noted earlier, if turnover intentions and turnover are not highly correlated, it is unlikely that variables which predict turnover intentions will be very effective at predicting turnover.

A second statistical explanation involves the base-rate of turnover and the amount of variance in the turnover criterion. At Eyes, 51 people were identified (via organizational records) as having voluntarily resigned (12.2% of 417), yielding a standard deviation of the employment status variable substantially lower than the standard deviations of the predictor variables. When there is restriction of variance on the criterion, in particular when deviations from 50-50 are severe on a dichotomous variable, limits are placed on the magnitude of obtained correlations.

This low base-rate problem (which obviously contributes to the low variance problem) is a potentially serious issue in turnover research in that it

inhibits the ability of researchers to find large magnitude correlates of turnover. Hulin and Rousseau (1980) suggest several ways of dealing with the analysis of infrequent (low base-rate) events, one of which is to use surrogate variables with higher base-rates than the focal variable. In fact, in Study 2, as in Study 1, the Turnover Diagnostic scales correlated well with Intentions but the results against Turnover in Study 2 indicate that surrogates may not always work! In particular, the results of this research suggest that intentions may not be an acceptable surrogate for turnover.

A second set of reasons that can be used to explain why turnover is hard to predict revolve around the operationalization of turnover itself. For years organizational withdrawal researchers have advocated separating voluntary turnover from involuntary turnover (Mobley et al., 1979; Porter & Steers, 1973, Price, 1977. Combining the two types of turnover probably yields a measure of turnover that, in most cases, is a confound. Indeed, in this research voluntary turnover was more predictable ($R = .353$) than was voluntary and involuntary turnover combined ($R = .279$; $F(9,400) \approx 3.63$, $p < .001$).

However, even within the voluntary turnover category, one cannot be certain whether such turnover is truly voluntary. Reliance on organizational classification schemes may result in unreliable data. For example, Lefkowitz and Katz (1969) reported significant differences between organizational and self-reported significant differences between organizational and self-reported reasons for organizational withdrawal. There appears to be an implicit assumption in the organizational withdrawal literature that voluntary turnover is an employee reaction to aversive organizational conditions, but it is obvious that there may be many instances in which this premise does not hold (Bowen, 1982).

Concluding Remarks

An examination of the results of Studies 1 and 2 leads to the conclusion that

the Turnover Diagnostic is a strong correlate of turnover intentions (as they were measured in this study) but that it is no more effective at predicting actual turnover than other procedures (besides intentions) have been. The Turnover Diagnostic itself had a multiple correlation of $R = .26$ with turnover and, in combination with a satisfaction measure and a turnover intentions measure, was able to explain 12.5 percent of the variance in voluntary turnover in Eyes. Ideally, it would have been desirable to have explained more variance in turnover. Several reasons were presented as explanations for why turnover is hard to predict, both in this particular research project and in general. These reasons include: (1) a relatively low turnover intentions-turnover correlation, (2) low variance in turnover, and (3) operationalization problems associated with the turnover criterion.

Given these problems and an unimpressive track record for predicting turnover, should organizational withdrawal researchers heed Mobley's (1982) advice to abandon the search for the antecedents of turnover? Mobley advocates focusing more attention on the withdrawal process itself. While a focus on the more cognitive facets of the organizational withdrawal process may be theoretically satisfying, and certainly is worthy of examination, from a practical standpoint a continued investigation of the systems-wide antecedents of turnover clearly seems warranted. For example, Mobley has identified job satisfaction as the conditional causal agent (the variable that gets the withdrawal decision making process started) in his process model of turnover. However, he has not specified in any detail what work and career factors contribute to or cause the psychological experience of satisfaction/dissatisfaction and turnover intentions. Without specifying these factors, decision makers with organizations are left to wonder about what actions they can take to increase satisfaction and/or decrease turnover intentions; the development of the Turnover Diagnostic was a step

toward specifying some of these factors.

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Footnotes

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³Results of the principal components analysis are available from the first author.

⁴The conclusion was drawn from the results presented in Table 3, where Career and Inhibition had the two largest beta weights, and from the results of an unreported stepwise regression analysis, in which Career and Inhibition were the first two variables to enter the equation.

Table 1
Scale Means, Standard Deviations, Internal Consistency
Reliability Estimates, and Correlations with Turnover
Intentions: Study 1

Variables ^a	Mean	S.D.	1	2	3	4	5	6
1. Inhi- (10) bition	2.82	.65	(74)					
2. Career (5)	2.48	.88	-38	(81)				
3. Super- (8) vision	3.02	.77	-61	49	(83)			
4. Status (4)	3.33	.78	-32	37	37	(66)		
5. Skill (4)	3.14	.78	-32	42	50	29	(57)	
6. Intention	2.61	1.24	39	-45	-40	-35	-35	--

NOTE: Maximum $N = 458$. All correlations are significant at $p < .01$. Decimals have been omitted. Response format for all items is a 5-point scale. Values on the diagonal represent internal consistency reliability estimates.

^aThe numbers in the parentheses represent the number of items in each of the scales.

Table 2
Multiple Regression Results with Turnover Intentions
Regressed on the Turnover Diagnostic Scales: Study 1

<u>Variable</u>	<u>BETA</u>	<u>F_{entry}</u>	<u>R</u>	<u>R²</u>	<u>F_{mr}</u>
Inhi- bition	-.181	12.63***	.391	.153	37.50***
Skill	.118	6.11	.457	.056	
Status	.139	9.78**	.494	.035	
Career	.260	29.13***	.544	.052	
Super- vision	.098	0.71	.545	.001	

NOTE: Maximum N = 458. F_{entry} refers to the F-value associated with the addition or deletion of a variable; F_{mr} is the F-value associated with the multiple R (df=5,444)

*** $\frac{p}{p}$.001
* $\frac{p}{p}$.01
 $\frac{p}{p}$.05

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Table 3

Scale Means, Standard Deviation, Internal Consistency Reliability Estimates and Correlations with Satisfaction, Turnover Intentions and Turnover: Study 2.

Variables ^a	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Inhibition (5)	2.95	.75	(68)									
2. Career (4)	2.42	.91	-.26	(80)								
3. Supervision (6)	3.30	.82	-.27	33	(81)							
4. Status (4)	3.17	.82	-.31	50	27	(73)						
5. Skill (5)	3.42	.69	-.21	46	45	54	(62)					
6. Reward (5)	3.17	.81	-.46	43	37	49	41	(72)				
7. Coworkers (4)	3.59	.69	-.12	26	34	25	53	23	(55)			
8. Intent (1)	2.03	1.02	-.43	35	25	45	33	43	14	--		
9. Satisfaction (1)	3.92	.85	.42	-33	-26	-42	-32	-49	-11	-70	--	
10. Turnover	.13	.35	.16	-.04	-.01	-12	-12	-18	.04	-19	31	--

Note: Maximum $\bar{N}$ = 417 except; correlations greater than .14 are significant at p .05. Decimals have been omitted for correlations.

^aThe numbers in parentheses represent the number of items in each of the scales.

Table 4
Hierarchical Regression Analysis with Turnover Regressed on
the Turnover
Diagnostic Scales: Study 2

<u>Variable</u>	<u>BETA</u>	<u>F_{entry}</u>	<u>R</u>	<u>R²</u>	<u>F_{mr}</u>
Inhibition	-.062	3.92*	.163	.027	3.66***
Coworkers	.100	4.46*	.172	.030	
Career	.083	1.46	.172	.030	
Supervision	.094	1.89	.173	.030	
Status	.017	.15	.199	.040	
Reward	-.057	4.22*	.230	.053	
Skill	-.143	5.15*	.257	.066	

NOTE: Maximum N = 381. F_{entry} refers to the F-value associated with the addition or deletion of a variable; F_{mr} is the F-value associated with multiple R (df=7,374).

***p .001

**p .01

*p .05

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