

Career Commitment and Expected Utility of Present Job as Predictors of Turnover Intentions and Turnover Behavior

ARTHUR G. BEDEIAN

Louisiana State University

EDWARD R. KEMERY

University of Baltimore

AND

ALLAYNE B. PIZZOLATTO

Nicholls State University

This study investigated two hypotheses relevant to the employee withdrawal process as it relates to career commitment and expected utility of present job for attaining valued career outcomes. Data pertaining to career commitment, expected utility of present job, turnover intentions, and actual turnover of 244 nursing professionals were examined. Expected utility of present job for attaining valued career outcomes was found to interact with career commitment in predicting intent to leave. The relation between expected utility of present job and turnover intent was negative for subjects with high career commitment, but positive for subjects with low career commitment. Further, it was found that (i) while career commitment interacted with expected utility of present job to predict turnover intentions and (ii) while turnover intentions had a direct effect on turnover, (iii) neither career factor was related directly to turnover when holding turnover intentions constant, thus intimating that the individual career factors affect turnover through turnover intentions. Both the theoretical and the practical implications of these results for understanding the psychology of the withdrawal process are discussed.

© 1991 Academic Press, Inc.

The vocational-related literature is currently witnessing a resurgence of interest in commitment to one's profession or career (Colarelli & Bishop, 1990). According to Morrow (1983), work commitment embraces five foci

Address correspondence and reprint requests to Arthur G. Bedeian, Department of Management, Louisiana State University, Baton Rouge, LA 70803-6312. The authors thank Gary J. Blau and Lawrence R. Jauch for vetting an earlier draft manuscript.

or domains with various concepts representative of each: (1) value focus (e.g., work ethic endorsement), (2) job focus (e.g., work as a central life interest, job involvement), (3) organization focus (e.g., organizational commitment), (4) union focus (e.g., union commitment), and (5) career focus (e.g., career commitment, professionalism). As Morrow and Wirth (1989) lament, however, while well-developed literatures exist for the first four of these domains, the fifth (i.e., career focus) lags developmentally. This developmental inattention is surprising given that career commitment is a key variable in several integrative models of organizational behavior. For example, while various explanatory turnover models (e.g., Mobley, Griffeth, Hand, & Meglino, 1979; Price & Mueller, 1981) acknowledge career commitment as an individual determinant of turnover, it is a factor that rarely has been examined empirically (Cotton & Tuttle, 1986).

A notable exception to this neglect is Bartol's (1979b) work on the differential impact of individual versus organizational variables on job attitudes and behavior. Drawing on a sample of 159 computer specialists, she found a significant inverse relation between career commitment, or the strength of one's motivation to work in a chosen career, and turnover. Harrell, Chewning, and Taylor (1986) report a similar relation between career commitment and the turnover intentions of 59 internal auditors.

One possible explanation for the usefulness of career commitment in predicting an individual's decision to remain with or leave an organization—or the intention to do so—is offered by Jauch, Osborn, and Terpening (1980). They suggest that an individual's attachment to a specific organization may result not only from identification with that organization, but also from identification with either a specific career or a particular set of peers. Thus, if individuals are committed to a specific career, but not a specific organization or peer group, these latter orientations may be comparatively unimportant in predicting either turnover or turnover intentions, as long as the organization provides career opportunities. In support of this logic, Graen and Ginsburgh (1977) report finding a strong link between job resignation and the perceived relevance of a job situation to one's later career.

This reasoning is consistent with established career models (e.g., Rhodes & Doering, 1983), as well as Porter and Steers' (1973) met expectations hypothesis which holds that individuals bring sets of expectations to job situations, and these expectations must be met for individuals to remain in an organization. Mobley et al. (1979) build on this logic to suggest that one may be dissatisfied with one's present job, but be attracted to it because of the expectation that it will be relevant to one's subsequent career. That is, it will facilitate the future attainment of positively valued outcomes. Career growth opportunities would be one example of such an outcome for individuals who are committed to their careers. Reason would thus suggest, in line with Jauch et al. (1980), that career commitment

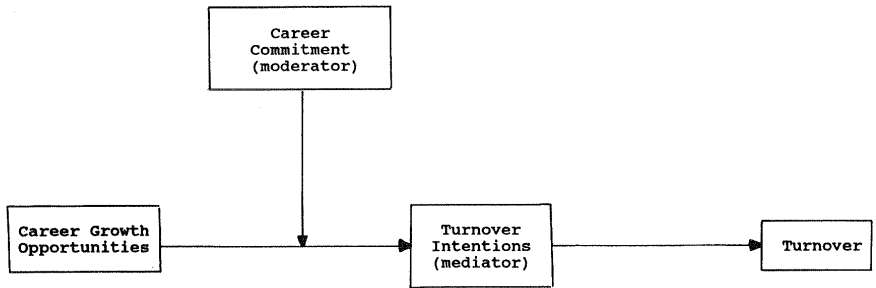


Fig. 1. Proposed relations among study variables.

may interact with the expected utility of one's present job for attaining valued career outcomes to predict an individual's decision to remain with or leave an organization. Thus, it would be expected that individuals with both higher levels of career commitment and anticipated career growth opportunities will be less likely to express intentions to quit and, ultimately, turnover than individuals with lower levels.

Bartol (1979b) and Blau (1985, 1989) have both called for additional research to investigate the interaction between career commitment and career enhancing factors in predicting employee withdrawal. Such research would be especially welcome given the limited findings and uncertain relations among career commitment, expected utility of present job in enhancing career growth opportunities, and employee turnover. Therefore, to advance our understanding of the relations among these variables, the specific purpose of the present study was to investigate the roles of expected utility of present job in facilitating future career growth opportunities and career commitment in the withdrawal process.

Drawing on the theory of reasoned action, which holds that a person's intention to perform a specific behavior is the immediate determinant of the behavior (Fishbein & Ajzen, 1975), most withdrawal models have treated intention to quit as the final cognitive variable immediately preceding (and having a direct causal impact on) turnover behavior (e.g., Mobley et al., 1979). As such, intention to quit has been repeatedly shown to be the most immediate predictor of eventual turnover, reflecting an individual's motivation to stay or leave (Cotton & Tuttle, 1986). Indeed, in their meta-analysis of research on the intention-turnover relation, Steel and Ovalle (1984) found a weighted average correlation of .50 between those two variables. Given that intent to withdraw has been conceptually and empirically shown to be a direct antecedent to actual turnover, it was further anticipated that career commitment and the expected utility of one's present job in facilitating future career growth opportunities would interact to predict turnover intentions which, in turn, would predict actual separation.

The preceding reasoning, depicted in Fig. 1 as a path diagram, can be presented as two testable hypotheses. Hypothesis 1 proposes that career commitment and expected utility of present job for attaining future career growth opportunities interact to predict intent to leave. Hypothesis 2 posits that turnover intention is a mediating variable through which the focal career factors (i.e., career commitment and expected utility of present job in facilitating future career growth opportunities) influence actual turnover. Based on the theory of reasoned action, as well as previous turnover studies in which the influences of individual attributes and environmental events are transmitted to withdrawal behaviors through intervening behavioral intentions (Bluedorn, 1982; Parasuraman, 1982), the focal career factors were expected to affect turnover only indirectly via turnover intentions. The linkages suggested in these two hypotheses are subsumed under what James and Brett (1984) label a case of "moderated mediation." That is, the career factors are related in a nonlinear fashion to turnover intentions (i.e., a moderating relationship), and all the effects of the career factors on turnover are transmitted through turnover intentions (i.e., a mediating relationship). More specifically, the relation between career growth opportunities and turnover intentions is conditional upon the level of career commitment (H_1). While the focal career factors interact to affect turnover intentions, and turnover intentions have a direct effect on turnover, neither career factor is related directly to turnover when turnover intentions are held constant (H_2).

The occupational group selected for the present research was hospital nurses. There are several reasons why nursing is an especially appropriate occupation for our stated purpose. First, nursing has traditionally experienced problems with work commitment as expressed in a relatively high rate of voluntary turnover (Martin, 1982). This high turnover rate has been attributed to, among other causes, a lack of opportunities for career growth (Gray, 1989). Second, the estimated cost of nurse replacement (in a demand-driven market) recently has skyrocketed. Third, the current high turnover among nurses has been associated with a reduction in the overall quantity and quality of patient care (Prestholt, Lane, & Mathews, 1986). Efforts to improve our understanding of nurse turnover thus have both monetary and practical significance.

METHOD

Sample

The sample for this study was drawn from employees in two medium-size general hospitals. Research packets were distributed on-site to 511 potential participants. The packets contained (a) a cover letter explaining the general purpose of the study ("To learn how employees in this hospital feel about their jobs, their work, and other aspects of their profession"),

(b) the measures described below, and (c) an envelope preaddressed to the researchers for ease of return. Confidentiality was guaranteed and participation voluntary. Of the 511 research packets, 302 were returned for a 62% participation rate. Inclusion in the present analyses was limited to those employees who were nursing professionals and had complete data on all variables relevant to the present study. These restrictions yielded a sample of 244 participants for a 48% effective return rate. This sample size provides power of .98 to detect an effect size of .09 (i.e., $r = .30$) at the .05 probability level (Cohen, 1977).

Given that there were no significant differences between the two hospitals in response rates, employment status (full- versus part-time), sex, childcare responsibilities, type of shift (rotating versus straight), marital status, age, and education, they were treated as one sample. Some 95% of the respondents were female. Approximately 93% were between ages 25 and 59, and the modal age category ($n = 55$) was 30–34 years. Modal position tenure ($n = 78$) and organizational tenure ($n = 72$) categories were 1–3 and 5–10 years, respectively. Some 86% of the respondents were employed full-time, and roughly 53% worked a rotating shift. Over 68% held college degrees. Approximately 64% were married and 37% reported having children for whom they arranged childcare.

Measures

Career commitment. This variable was measured with seven items taken from an instrument developed by Blau (1985) for use with nursing personnel. Response alternatives to each item were coded from 1 (strongly disagree) to 5 (strongly agree) and summed so that the greater the score, the greater the career commitment. Example items include: “I definitely want a career for myself in the profession in which I am presently working” and “If I could do it all over again, I would choose to work in the same profession in which I am currently working.” The coefficient α for this measure was .84.

Expected utility of present job. Drawing on the work of Mobley et al. (1979) and the Porter and Steers (1973) met expectations hypothesis, this variable was assessed by two items designed to gauge the expected utility of one’s present job for future attainment of valued career outcomes. The two items were: “I feel that my present job will lead to future attainment of my career goals” and “My present job is relevant to the growth and development in my career.” Responses were scored using a 5-point response mode ranging from 1 (strongly disagree) to 5 (strongly agree) and summed. Therefore, the higher the score, the greater the expected utility of the present job. The coefficient α for this measure was .77. A principal component factor analysis of the “expected utility of present job” and “career commitment” items verified their discriminant validity.

Turnover intentions. Intended turnover was gauged with a two-item

instrument developed by Price and Mueller (1981) for use specifically with nurses. The first item queried respondents' feelings about their future tenure at their employing hospital ("Which of the following statements most completely reflects your feelings about your future at . . .?"). The response format for this item ranged from 1 (definitely will not leave) to 5 (definitely will leave). The second item asked "Do you expect to leave (hospital) in the near future?" The response format (reverse-scored) for this item ranged from 1 (I will definitely leave in the near future) to 5 (I will definitely not leave in the near future). The two items were summed to yield a single score so that a higher score would indicate a strong behavioral intention to leave. The coefficient α for this measure was .86.

Turnover. The hospitals supplied information on the employment status of each nurse 6 months after the questionnaires were distributed. This time interval was selected based on the reasoning of Price and Mueller (1981) that fewer extraneous changes are likely to occur within an organization during this compared to a longer time period (e.g., 12 months), thereby increasing explained variance. A score of 0 was assigned to stayers and 1 to leavers. This variable explicitly represents a dichotomization of tenure subsequent to questionnaire administration or what Kemery, Dunlap, and Bedeian (1989) have labeled "subsequent job tenure." Of the 244 participants in the reduced sample, 35 (14.3%) resigned during the 6 months of the study. All 35 resignations were recorded by the hospitals as voluntary (reasons cited for terminating: leaving the area, obtaining alternative employment, health reasons, furthering education). There was no significant difference in the turnover rates of survey respondents and nonrespondents, $\chi^2 = 2.74$, $df = 1$, $p = ns$.

Analyses

Two multiple regression analyses were conducted to test Hypothesis 1, that career commitment and expected utility of present job for attaining future career growth opportunities interact to predict turnover intentions. Following recommended procedures (e.g., Alexander & Day, in press; Stone & Hollenbeck, 1989), the regressions were conducted in a stepwise fashion. On Step 1, career commitment and expected utility of present job for attaining future career growth opportunities were entered, followed by their cross-product (i.e., Career Commitment \times Career Growth Opportunities) on Step 2. If the cross-product term significantly increased the variance explained by the predictors, it was taken as evidence of an interaction effect. This method of analysis is especially suitable for the present study since it partially controls for collinearity among variables.

Hypothesis 2, that the effect of the focal career factors (i.e., career commitment and expected utility of present job for attaining future career growth opportunities) on turnover is mediated by turnover intentions, was tested following the multiple regression procedure outlined by Baron and

TABLE 1
Descriptive Statistics and Intercorrelations for Study Variables

Variable	Range ^a	M	SD	r		
				1	2	3
1. Turnover	—	.14	.35	—		
2. Turnover intention	2 to 10	5.04	2.03	.34	—	
3. Career commitment	7 to 35	26.03	5.89	-.16	-.21	—
4. Career growth opportunities	2 to 10	7.38	1.97	-.08	-.13	.56

Note. $N = 244$. Turnover is coded 0 = stay ($n = 209$), 1 = leavers ($n = 35$). Coefficients $> \pm .13$ are significant at the .05 level (two-tailed test).

^a Potential score range.

Kenny (1986). On Step 1, turnover was regressed on turnover intentions to control for the latter's hypothesized mediating influence on subsequent steps; on Step 2, career commitment and expected utility of present job for future career growth opportunities were entered, followed by their cross-product (i.e., Career Commitment \times Career Growth Opportunities) on Step 3. According to our logic, if turnover intention is the only variable to have a direct effect on turnover, it may be inferred that the career factors affect turnover only indirectly through turnover intentions, thereby corroborating the path diagram presented in Fig. 1.

RESULTS

Variable means, standard deviations, reliabilities, and intercorrelations (with their significance levels) are presented in Table 1. The internal consistency reliabilities (Cronbach α) were generally good, ranging from .77 to .86. Consistent with the theory of reasoned action, turnover behavior was correlated with turnover intentions ($r = .34$). Also, consistent with Bartol (1979b) and Harrell et al. (1986), respectively, career commitment correlated negatively with turnover ($r = -.16$) and turnover intentions ($r = -.21$). Career commitment and expected utility of present job for attaining future career growth opportunities were intercorrelated ($r = .56$). Their correlation is consistent with the common career theme running through the content of the scales.

Table 2 presents the results of the regression analyses concerning the effects of career commitment on the relation between expected utility of present job for attaining future career growth opportunities and turnover intentions (Hypothesis 1). As indicated, the interaction of career commitment and expected utility of present job for attaining future career growth opportunities added significantly to the variance explained ($R^2 = .019$, $F(3, 241) = 4.92$, $p < .03$). Combining career commitment, expected

TABLE 2
Regression Results with Turnover and Turnover Intention as Dependent Variables

Step	Variable	<i>R</i>	<i>R</i> ²	ΔR^2	<i>df</i>	<i>F</i> (ΔR^2)	<i>p</i>
Panel A: Turnover intention							
1.	Career commitment, career growth opportunities	.214	.046	.001	2,242	<1	ns
2.	Career commitment × career growth opportunities	.255	.065	.019	3,241	4.92	.027
Panel B: Turnover							
1.	Turnover intention	.338	.114	.114	1,243	31.07	.001
2.	Career commitment	.349	.122	.008	2,242	2.19	ns
3.	Career growth opportunities	.349	.122	.000	3,241	<1	ns
4.	Career commitment × career growth opportunities	.361	.130	.008	4,240	2.23	ns

Note. *N* = 244. The adjusted *R*² for each model is .053 and .115 (turnover intention and turnover, respectively).

utility of present job for attaining future career growth opportunities, and their interaction yielded a multiple correlation of .25 (adjusted *R* = .23).

The nature and direction of the predicted Career Growth Opportunities × Career Commitment interaction are shown in Fig. 2. Separate regression lines were computed and subsequently plotted based on a mean split for career commitment. That is, a plot of the expected career growth opportunities–intent to turnover relation was performed for subjects who scored high in career commitment and for those who scored low (cf. Mossholder, Kemery, & Bedeian, 1990).

Figure 2 shows that for subjects with high career commitment there was a negative relation between expected utility of present job for future career growth opportunities and turnover intentions. In other words, those subjects whose present roles offered greater perceived career growth opportunities reported the least likelihood of terminating employment. For subjects with low career commitment, however, there was a positive relation between greater perceived career growth opportunities and intended turnover. Therefore, greater expected career growth opportunities had a vitiating effect on turnover intentions only for subjects with high career commitment.

Table 2 also reports the regression results testing Hypothesis 2. As predicted, the effect of the career factors was almost completely mediated by turnover intentions. Viewing Panels A and B together, it can be seen that while career commitment and expected utility of present job for future

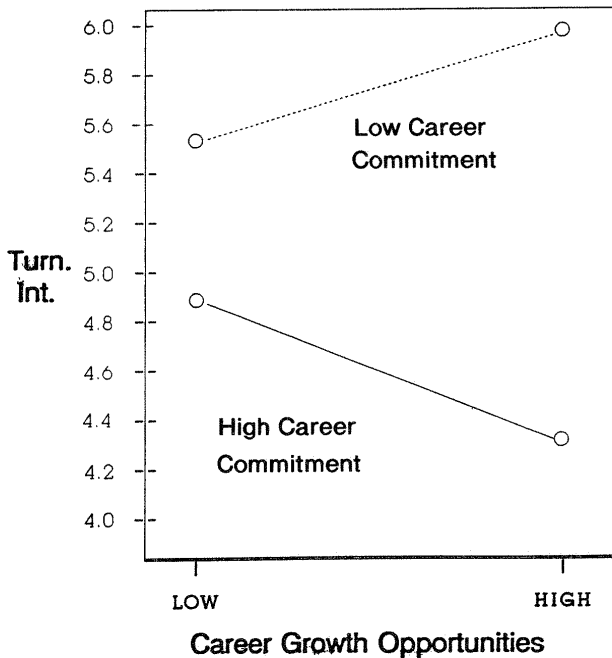


FIG. 2. Intended turnover as a function of career commitment and expected utility of present job for future career growth opportunities.

career growth opportunities interacted to affect turnover intentions, and turnover intentions had a direct effect on turnover, neither career factor (alone or in combination) was related significantly to turnover when turnover intentions were held constant.

DISCUSSION

Expected utility of present job for attaining career growth opportunities was found to interact with career commitment in predicting intended turnover. The relation between expected career growth opportunities and turnover intent was negative for subjects with higher career commitment, but positive for subjects with low career commitment. This result adds to previous research (Neapolitan, 1980) concerning the efficacy of expected career growth opportunities in predicting turnover intentions. The data indicate that it is the absence of career growth opportunities that prompt individuals with high career commitment to consider leaving an organization. By contrast, a reverse relation appears to exist for individuals with low career commitment.

Whereas this result specifies when anticipated career growth opportunities can be expected to interact to predict intended turnover, the finding that the effect of these career factors on actual turnover is almost com-

pletely mediated by turnover intentions speaks to how such effects occur. Full explanation of the psychological withdrawal process is obviously incomplete. The present results, however, support the potency of intentions in the withdrawal process and serve to demonstrate its complexity.

The reported results further confirm the position that a variety of cognitive phenomena occur between a willingness or intent to leave and actual leaving. Accordingly, at the individual level, employee withdrawal can be viewed from a perspective that integrates career theory and decision-making (Koslowsky, 1987). Louis (1980) has suggested that individuals constantly process information about career opportunities and, if blocked or unable to identify new opportunities, may reduce dissonance by increasing their withdrawal cognitions and, ultimately, their migration. Using the notion of career transitions, voluntary turnover may be simply viewed as another means for actualizing career goals (Rhodes & Doering, 1983). Such behavior is consistent both with Porter and Steers' (1973) met expectations hypothesis, which holds that individuals bring sets of expectations to employment situations which must be met for individuals to remain on a job, and with the reasoning underlying the Mobley et al. (1979) model of the turnover process. The present findings, particularly given their longitudinal nature, amplify the psychological withdrawal process by providing preliminary evidence of the putative roles of career commitment and career growth opportunities in turnover decisions.

The results of our study suggest that more attention should be given to the interaction of career and job utility factors in predicting and understanding job withdrawal. Future research in this area might consider other indices of job withdrawal such as job involvement, absenteeism, and lateness. In addition, research attention might be given to more immediate effects of career and job utility factors conceivably playing a role in turnover decisions. For example, it would be expected that when a person high in career commitment is not supported in a job endeavor, a certain amount of job strain is created, presumably due to a mismatch between the person and job context. Although not studied extensively, several previous studies have implicated job strain as a factor in the turnover (i.e., job withdrawal) process (Bedeian & Armenakis, 1981; Kemery, Bedeian, Mossholder, & Touliatos, 1985; Kemery, Mossholder, & Bedeian, 1987).

On a more practical level, a more complete understanding of the relation between career growth opportunities and career commitment as precursors to intent to leave may be more helpful in discouraging the attrition of employees with high career commitment than knowledge of what causes turnover itself. For instance, as suggested by Fig. 2, an organization that is unwilling or unable to provide career growth opportunities faces double jeopardy, in that intended turnover will be both higher for individuals who are highly committed to their careers and lower for those who are

not as committed to their careers. Thus, the present findings suggest that resource expenditures aimed at increasing career growth opportunities will decrease the turnover of individuals who are highly committed to their careers and increase turnover for those less committed to their careers. Implications for designing recruitment and selection systems for such circumstances await further research.

Within the context of an integrative turnover model, our results could possibly be dismissed because they account for only a modest amount of explained variance. We have not demonstrated that our focal career variables add to the predictive power of widely documented precursors of employee turnover. Central to such a position is the notion that for withdrawal research to be deemed important, it must show some incremental validity when contrasted against established turnover predictors. This position, however, only has merit if one takes a narrow criterion-driven focus. If a study's goal is to gain additional understanding of the psychological withdrawal process, then this position is unreasonable. As suggested by O'Grady (1982), when the aim of a study is to explain or understand the process of when and how psychological phenomena take on behavioral significance, maximizing explained variance is not a foremost concern. We believe the present study falls into this category.

Within the same context, the present study could possibly be criticized for focusing on intermediate linkages in the turnover decision rather than attempting to examine the entire turnover process. As Mowday, Koberg, and McArthur (1984) note, however, such comprehensive undertakings typically focus on different facets than more intermediate efforts. Thus, the two approaches should be considered complementary, with both offering potential for increasing our understanding of employee turnover. To this end, although the current study did not consider a broad range of predictors, it does offer insight into important career-based process considerations underlying the turnover decision.

Finally, the generalizability of the present findings may be limited, since a nurse's job may be significantly different from that of a salesperson, bank teller, or technician. These findings, however, should generalize to other professional vocations in which career commitment is high and attraction is based on the expectation that one's job will lead to future attainment of positively valued outcomes.

REFERENCES

- Alexander, R. A., & Day, D. V. (in press). Appropriate and inappropriate tests of predictive bias in moderated regression. *Applied Psychological Measurement*.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical conclusions. *Journal of Personality and Social Psychology*, **51**, 1173-1182.
- Bartol, K. M. (1979a). Individual versus organizational predictors of job satisfaction and turnover among professionals. *Journal of Vocational Behavior*, **15**, 55-67.

- Bartol, K. M. (1979b). Professionalism as a predictor of organizational commitment, role stress, and turnover: A multidimensional approach. *Academy of Management Journal*, **22**, 815–821.
- Bedeian, A. G., & Armenakis, A. A. (1981). A path-analytic study of the consequences of role conflict and role ambiguity. *Academy of Management Journal*, **24**, 417–424.
- Blau, G. J. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, **58**, 277–288.
- Blau, G. J. (1988). Further exploring the meaning and measurement of career commitment. *Journal of Vocational Behavior*, **32**, 284–297.
- Blau, G. (1989). Testing the generalizability of a career commitment measure and its impact on employee turnover. *Journal of Vocational Behavior*, **35**, 88–103.
- Bluedorn, A. C. (1982). The theories of turnover: Causes, effects and meaning. *Perspective in Organizational Sociology: Theory and Research*, **1**, 75–128.
- Cohen, J. (1977). *Statistical power analysis for the behavioral sciences* (rev. ed.). New York: Academic Press.
- Colarelli, S. M., & Bishop, R. C. (1990). Career commitment: Functions, correlates, and management. *Group & Organization Studies*, **15**, 158–176.
- Cotton, J. L., & Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review with implications for research and theory. *Academy of Management Journal*, **11**, 55–70.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitudes, intention and behavior*. Reading, MA: Addison-Wesley.
- Graen, G., & Ginsburgh, S. (1977). Job resignation as a function of role orientation and leader acceptance: A longitudinal investigation of organizational assimilation. *Organizational Behavior and Human Performance*, **19**, 1–17.
- Gray, D. E. (1989). Gender and organizational commitment among hospital nurses. *Human Relations*, **42**, 801–813.
- Harrell, A., Chewing, E., & Taylor, M. (1986). Organizational–professional conflict and the job satisfaction and turnover intentions of internal auditors. *Auditing: A Journal of Practice & Theory*, **5**(2), 109–121.
- James, L. R., & Brett, J. M. (1984). Mediators, moderators, and tests for mediation. *Journal of Applied Psychology*, **69**, 307–321.
- Jauch, L. R., Osborn, R. N., & Terpene, W. D. (1980). Goal congruence and employee orientations: The substitution effect. *Academy of Management Journal*, **23**, 544–550.
- Kemery, E. R., Bedeian, A. G., Mossholder, K. M., & Touliatos, J. (1985). Outcomes of role stress: A multisample constructive replication. *Academy of Management Journal*, **28**, 363–375.
- Kemery, E. R., Dunlap, W. P., & Bedeian, A. G. (1989). The employee separation process: Criterion-related issues associated with tenure and turnover. *Journal of Management*, **15**, 49–56.
- Kemery, E. R., Mossholder, K. M., & Bedeian, A. G. (1987). Role stress, physical symptomatology, and turnover intentions: A causal analysis of three alternative specifications. *Journal of Occupational Behavior*, **8**, 11–23.
- Koslowsky, M. (1987). Antecedents and consequences of turnover: An integrated systems approach. *Genetic, Social, and General Psychology Monographs*, **113**, 271–292.
- Louis, M. R. (1980). Career transitions: Varieties and commonalities. *Academy of Management Review*, **5**, 329–340.
- Martin, T. N. (1982). Commitment predictors of nursing personnel's intent to leave. *Medical Care*, **20**, 1147–1153.
- Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, **86**, 493–522.

- Morrow, P. C. (1983). Concept redundancy in organizational research: The case of work commitment. *Academy of Management Review*, **8**, 486-500.
- Morrow, P. C., & Wirth, R. E. (1989). Work commitment among salaried professionals. *Journal of Vocational Behavior*, **34**, 40-56.
- Mossholder, K. W., Kemery, E. R., & Bedeian, A. G. (1990). On using regression coefficients to interpret moderator effects. *Educational and Psychological Measurement*, **50**, 255-263.
- Mowday, R. T., Koberg, C. S., & McArthur, A. W. (1984). The psychology of the withdrawal process: A cross-validation test of Mobley's intermediate linkages model of turnover in two samples. *Academy of Management Journal*, **27**, 79-94.
- Neapolitan, J. (1980). Occupational change in midcareer: An exploratory investigation. *Journal of Vocational Behavior*, **16**, 212-225.
- O'Grady, K. E. (1982). Measures of explained variance: Cautions and limitations. *Psychological Bulletin*, **92**, 766-777.
- Parasuraman, S. (1982). Predicting turnover intentions and turnover behavior: A multivariate analysis. *Journal of Vocational Behavior*, **21**, 111-121.
- Porter, L. W., & Steers, R. M. (1973). Organization, work and personal factors in employee turnover and absenteeism. *Psychological Bulletin*, **80**, 151-176.
- Prestholdt, P. H., Lane, I. M., & Mathews, R. C. (1987). Nurse turnover as reasoned action: Development of a process model. *Journal of Applied Psychology*, **72**, 221-227.
- Price, J. L., & Mueller, C. W. (1981). A causal model of turnover for nurses. *Academy of Management Journal*, **24**, 543-565.
- Rhodes, S., & Doering, M. (1983). An integrated model of career change. *Academy of Management Review*, **8**, 631-639.
- Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, **69**, 673-686.
- Stone, E. F., & Hollenbeck, J. R. (1989). Clarifying some controversial issues surrounding statistical procedures for detecting moderator variables: Empirical evidence and related matters. *Journal of Applied Psychology*, **74**, 3-10.

Received January 2, 1991

