# Research Note — Intended Turnover as a Function of Age and Job Performance

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## Introduction

Based on the belief that employee turnover is inherently detrimental to an organization and should be minimized, researchers have traditionally sought to develop strategies for retaining employees (for a review, see Price, 1977). Recent findings, however, indicate that the detrimental effects of turnover may be overstated (Boudreau and Berger, 1985). An organization that loses predominantly poorer performers may have less cause for concern than one that loses a disproportionately higher number of its better performers. That is to say, the significance of turnover to an organization is likely to be dependent upon the effectiveness (i.e. job performance) of those who stay compared with those who leave.

In addition to providing an opportunity to hire more effective replacements, the turnover of poorer performers may offer other benefits. New employees can stimulate management by offering innovative ideas. Furthermore, they can provide skills better-suited to an organization's future growth. At the same time, turnover can actually improve the morale of remaining employees by creating opportunities for internal advancement. To paraphrase Mobley (1982, p. 42), the organizational consequences of turnover are clearly dependent on *who* leaves and *who* stays.

Research results in this area, however, have been equivocal. Some research indicates that turnover is largely functional with poorer performers being more likely to quit than better performers (e.g. Sheridan, 1985). Other research indicates just the opposite (e.g. Martin, Price and Mueller, 1981). Finally, some research indicates that turnover is unrelated to job performance (e.g. Bluedorn and Abelson, 1981). Most recently, however, McEvoy and Cascio (1987) have concluded, on the basis of a comprehensive meta-analysis across 24 studies ($N = 7717$), that 'lower turnover tends to occur among better performers, and higher turnover tends to occur among poorer performers'. They report a $-0.28$ size-weighted mean correlation between turnover and performance, for the complete sample of studies. Noting the considerable remaining unexplained variance, however, they conclude that 'a search for potential moderators of the turnover–performance relationship is warranted'.

To this end, the present study investigated the influence of a personal variable (i.e. age) as an antecedent of the intention to quit. As defined, *intention to quit* refers to an individual's perceived probability of staying in an employing organization or terminating employment. This construct is

drawn from 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 and Ajzen, 1975). Accordingly, 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, Griffeth, Hand and Meglino, 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 and Tuttle, 1986). Indeed, in their meta-analysis of research on the intention–turnover relationship, Steel and Ovalle (1984) found a weighted average correlation of 0.50 between those two variables.

On a more practical level, Nicholson, Wall and Lischeron (1977) also argue for investigating the attitudinal component of intention to quit (i.e. propensity to leave) rather than actual turnover behavior. They suggest that a focus on intention to quit highlights the volitional components of behavior and the motivation to leave, circumventing many of the accidental and unavoidable reasons for actual turnover. From a practical perspective, it thus makes sense to deal with turnover intentions of *present* employees in order to prevent dysfunctional turnover rather than deal with turnover on a *post hoc* basis with *former* employees.

Age was selected as an important variable to study in relation to turnover for several reasons. First, the U.S. workforce is becoming older due to demographic changes and retirement legislation. Second, as the work force ages, it will be beneficial for human resource planning purposes to anticipate any differences in the turnover of older as compared to younger employees. Finally, research suggests that employee needs are likely to vary by age (Seybolt, 1983). Consequently, the efficacy of various methods for motivating older and younger workers is likely to differ (Maehr and Braskamp, 1986).

Based on this thinking, this study was designed to (a) empirically evaluate the interaction effect of age and performance with intended turnover and (b) determine if age differentially affects the turnover intentions of better and poorer performers.

# Method

## Subjects

Participants in this study were identified as part of a large national research program of accounting professionals. Subjects were randomly selected from the membership lists of the American Society of Certified Public Accountants, National Association of Accountants, Association of Government Accountants, and American Association of Women Accountants and queried by mail. Accountants ($n = 1821$) received research packets containing the measures described below, as well as a performance appraisal form to be completed by their supervisor and returned directly to the researchers in a preaddressed and stamped envelope. These materials were matched using a 4-digit identification code. Of the research packets 1145 were returned, and all but 65 were usable, for a participation rate of 63 per cent. Of this total, supervisory performance appraisals were received for 517, a joint response rate of 28 per cent. This number was reduced, however, by deleting all ($n = 99$) certified public accountants (CPAs) due to the 'up or out' policy common in public accounting firms. CPAs consequently experience inordinate turnover, especially early in their career stages (Montagna, 1974). Such turnover could have conceivably confounded the proposed study's results. Thus, the remaining 418 respondents for whom performance appraisals were received were selected as the focal sample. Fifty-seven per cent of

this sample were male, 73 per cent had at least a 4-year college degree, 38 per cent were over 40 years old, and 70 per cent were married. All were employed in educational, government, and private institutions.

To check the representativeness of the focal sample, respondents for whom supervisory performance appraisals were and were not received were compared on several variables of central interest. These variables were age, intention to quit, length of tenure, and social desirability response bias. Of the four comparisons, only one yielded a significant difference—the focal sample held approximately one year more tenure ($\bar{x} = 7.5$ versus 6.5) than the comparison sample ($t = 2.1$, $p < 0.05$). This difference may limit the generalizability of the following findings. However, the similarity of the focal and comparison samples on the variables of central interest diminishes the potential confounding of results based on sampling.

In further assessing the generalizability of the findings to be reported, it should be kept in mind that the focal sample consists entirely of staff accountants. A distinguishing characteristic of this occupational group at the time these data were collected was a high demand for the services of accounting professionals. Thus, one might assume that intentions to quit may be higher for this as compared to other occupational groups (Carsten and Spector, 1987). The meaningfulness of this assumption is tempered, however, by the fact that McEvoy and Cascio's (1987) meta-analysis found only modest support, in the *opposite* direction anticipated, for unemployment rate as a moderator of the turnover–performance relationship. That is, they found a negative correlation between performance and turnover when unemployment is below average. McEvoy and Cascio (1987), nevertheless, suggest that this relationship may still be otherwise sensitive to local job availability. Both the focal sample's occupational homogeneity and the question of local job availability, however, are counterbalanced by its high geographical dispersion and organizational heterogeneity (*cf.* Arnold and Feldman, 1982).

## Measures

The dependent variable, *intention to quit*, was measured using a three-item instrument developed by Lyons (1971). Response alternatives were coded from 1 to 6 and averaged so that the greater the score, the greater the intention to quit.

The independent variable, *job performance*, was assessed using a standardized performance appraisal measure intended solely for research purposes. Ratings were collected expressly for use by the researchers to avoid sources of possible rater bias (e.g. halo, leniency) affecting performance appraisals when they are used for human resource planning decisions (Guion, 1965). McEvoy and Cascio (1987) report that a summated rating provided by a supervisor for research purposes is the most frequent performance measured used in performance–turnover studies. Each respondent was given a copy of the performance appraisal measure to be completed by his or her supervisor and returned directly to the researchers. The supervisor was instructed to assess the employee on 23 items derived from the job performance literature and deemed specifically applicable to the accounting profession (*cf.* Porter and Lawler, 1968). A factor analysis of the items produced a general factor on which 12 items loaded substantially. These items were ability, accuracy, creativity, getting job done, initiative, job knowledge, judgment, productivity, professional image, promotability, quality of work, responsibility. Response categories ranged from 'unsatisfactory' to 'excellent'. Items were coded from 1 to 7 and averaged to yield a single performance score. All items were highly and positively correlated (mean $r = 0.72$).

*Age* was supplied by each respondent using an ordinal scale. From the focal sample of 418, 86 (20 per cent) were under 30, 174 (41 per cent) were in their 30s, 88 (21 per cent) were in their 40s, and 74 (18 per cent) were over 50.

## Data analyses

Hierarchical multiple regression was employed to analyze the hypothesized performance × age interaction effect. Separate regression analyses for performance and intention to quit were conducted for older and younger employees. For this purpose, age was dichotomized into under and over 40. This division was selected based on research associated with career stages suggesting that age 40 is a significant watershed for career growth opportunities and career attitudes (Levinson, Darrow, Klein, Levinson and McKee, 1978). This cutting point would appear to be associated with values separating older and younger workers.

Given its stepwise nature, hierarchical multiple regression is beneficial for controlling covariates that may confound an analysis. A measure of social desirability, Gough's (1975) 'good impression' (Gi) scale, was collected as a covariate to partial out a potential response bias which has been found to confound research using self-report measures of intentions to quit as a dependent variable (Arnold, Feldman and Prubhoo, 1985). Employees high in social desirability bias may underreport their intentions to quit. Gough (1975) reports a test–retest reliability for this scale of 0.81. Additionally, length of tenure was also treated as a covariate since it has found that individuals perceive their jobs differently the longer they have been in their employing organization (Katz, 1980).

# Results

Descriptive statistics and coefficient alpha reliability estimates for all study variables are presented in Table 1. Zero order correlations are also reported. Of note, is the skewed job performance rating distribution. This is likely representative of normal performance ratings, however, since supervisory performance assessments generally tend to be negatively skewed (Bernardin and Beatty, 1984). Moreover, considering the restricted distribution of performance ratings, were there significant effects, the results would argue even more strongly for the efficacy of the investigated relationship. Age is unrelated to performance ($r = 0.03$) and negatively related to intention to quit ($r = -0.12$). Further, intention to quit and performance are inversely related ($r = -0.11$). Although social desirability is modestly, but positively related to age ($r = 0.19$), it is inversely related to intention to quit ($r = -0.16$). Tenure is inversely related to intention to quit ($r = -0.11$) and, logically, positively related to age ($r = 0.43$). Virtually all intercorrelations are thus modest to low.

Table 1. Descriptive statistics and intercorrelations among study variables

| Variable | $\bar{x}$ | S.D. | 1 | 2 | $r$ 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| 1. Intention to quit | 2.75 | 1.64 | (0.90) | | | | |
| 2. Performance | 5.83 | 0.74 | −0.11 | (0.94) | | | |
| 3. Age | 2.39 | 1.06 | −0.12 | 0.03 | (--)* | | |
| 4. Social desirability | 17.87 | 5.84 | −0.16 | 0.06 | 0.19 | (--)* | |
| 5. Tenure | 7.51 | 6.87 | −0.11 | 0.09 | 0.43 | 0.08 | (--)* |

$N = 418$. Correlations in this table $\geq \pm 0.16$ are significant at the 0.05 level (two-tailed test). Coefficient alpha reliability estimates are in parentheses.
*Not applicable.

Results of the hierarchical multiple regression to analyze the hypothesized performance × age interaction effect are given in Table 2. This table compares the predictive validity of restricted and full regression equations for the intentions to quit of older versus younger employees. A negative social desirability response bias is evidenced ($\beta$ = –0.14; $p < 0.01$). This bias is similar to that reported by Arnold *et al.* (1985). Controlling for tenure and a social desirability response bias, age and performance significantly interacted to affect turnover intentions ($\Delta R^2$ = 0.065, $F$ = 16.25, $p < 0.001$). This interaction accounted for 6.5 per cent unique variance in intention to quit. The full regression equation accounted for 11.2 per cent of the variance in intended turnover. Parenthetically, similar results were found when the 99 omitted CPAs were included in the data analysis.

Table 2. Hierarchical regression analysis for intention to quit

| Variable | Step 1 ($\beta_1$) | Step 2 ($\beta_2$) |
|---|---|---|
| Covariate | | |
|     Social desirability | –0.14* | –0.19† |
|     Tenure | –0.06 | –0.10 |
| Main effect | | |
|     Performance | –0.09 | –0.68† |
|     Age | –0.07 | –2.14 |
| Interaction term | | |
|     Performance × age | -- | 2.22† |
| *df* | (4,413) | (5,412) |
| Overall *F* | >5.06† | >5.67† |
| $R^2$ | 0.047 | 0.112 |
| $\Delta R^2$ | | 0.065 |
| $F(\Delta R^2)$ | | 16.25† |

*$p < 0.01$; † $p < 0.001$.

The form of the significant age × performance interaction is depicted in Figure 1. As the interaction plot shows, age differentially affects the turnover intentions of better and poorer performers. Performance and intention to quit were inversely related for older employees. By contrast, performance had no effect on the intentions to quit of younger employees.

## Discussion and Conclusion

The results of this study carry important implications for research on performance and turnover. They indicate that age, controlling for tenure and social desirability response bias, is a significant moderator in the relationship between performance and intention to quit. This suggests the possibility that a vector of personal characteristics such as age may be required to fully comprehend the association between performance and intended turnover. This possibility is consistent with the belief that individuals have profiles, including characteristics such as age, gender, and socioeconomic status, that partially determine their work behavior (Vardi, 1980).

The relationship between turnover intentions and performance was different for younger and older employees. This result is unique in that there has been no previous reported research directly
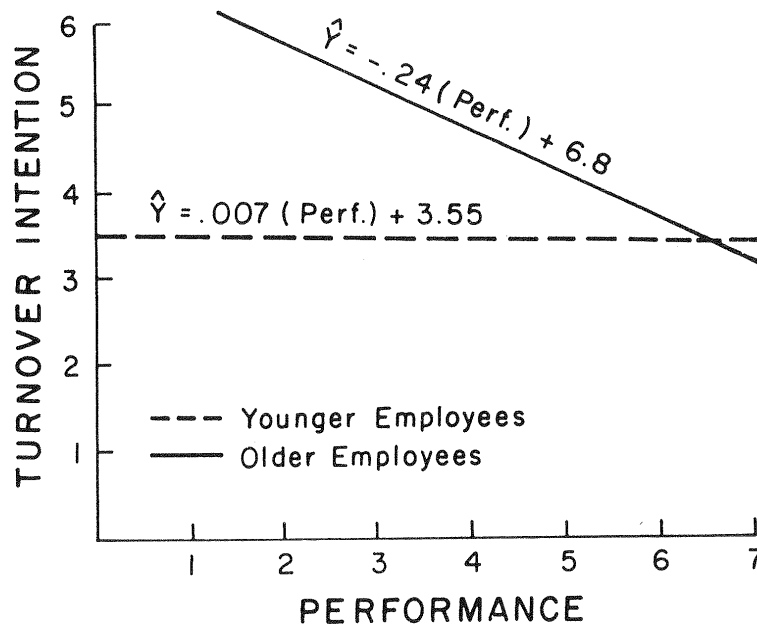
Figure 1. Interaction effect of age and performance on turnover intention ($p < 0.001$)

examining the intended turnover of older and younger employees in relation to performance. It suggests that examining turnover intentions in conjunction with performance and age could help identify employees with higher probabilities of leaving. Categorizing employees according to both their performance and age and then examining their turnover intentions may help avoid a 'shotgun' approach to turnover, where all employees are dealt with as one large mass.

Traditionally, older poorer performing employees have been viewed as the least likely to leave an organization due to difficulties in locating another job. A possible implication of the counter results reported here is that 'these individuals have seen it all and there is not much left to faze them' (Seybolt, 1983, p. 114). They have likely been around long enough to know the ropes and recognize the likelihood (or lack thereof) of future promotion opportunities. Indeed, evidence suggests that it is primarily dissatisfaction with perceived promotion opportunities that prompts individuals to consider leaving an organization (Parasuraman, 1982). Such turnover thoughts may possibly come as a result of the notion, 'Is this all there is?' (Seybolt, 1983, p. 116).

Finally, it is admittedly impossible to establish causality in a cross-sectional study. While we have built on theory suggesting that age and performance influence intentions to leave, it is thus equally plausible that age and turnover intentions determine performance. Older accountants who have high intentions to leave may have little stake in their present job and, consequently, their job performance may suffer. By contrast, older accountants who have low intentions to leave may place greater effort in their current job performance. Conversely, for younger accountants, who have most of their career still before them, their intentions to stay or leave their present job may have little influence on their current performance, since good job performance will enhance their career prospects.

From a practical viewpoint, the current results reiterate that organizations consider the type of persons likely to terminate their employment. Given that older poorer performing employees are more likely to indicate an intention to leave, organizations should reconsider programs designed

to reduce all turnover, since this would be tantamount to spending resources on employees with lower probabilities of returning the investment through their performance contributions.

# References

Arnold, H. J. and Feldman, D. C. (1982). 'A multivariate analysis of the determinants of job turnover', *Journal of Applied Psychology*, **67**, 350–360.

Arnold, H. J., Feldman, D. C. and Prubhoo, M. (1985). 'The role of social desirability response bias in turnover research', *Academy of Management Journal*, **28**, 955–966.

Bernardin, H. J. and Beatty, R. W. (1984). *Performance appraisal: Assessing Human Behavior at Work*, Kent, Boston.

Bluedorn, A. C. and Abelson, M. A. (1981). 'Employee performance and withdrawal from work'. Paper presented to the American Institute for Decision Sciences, Boston.

Boudreau, J. W. and Berger, C. J. (1985). 'Decision–theoretic utility analysis applied to employee separations and acquisitions', *Journal of Applied Psychology*, **70**, 581–612.

Carsten, J. M. and Spector, P. E. (1987). 'Unemployment, job satisfaction, and employee turnover: A meta-analytic test of the Muchinsky model', *Journal of Applied Psychology*, **72**, 374–381.

Cotton, J. L. and Tuttle, J. M. (1986). 'Employee turnover: A meta-analysis and review with implications for research and theory', *Academy of Management Review*, **11**, 55–70.

Fishbein, M. and Ajzen, T. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA.

Gough, H. G. (1975). *Manual for the California Psychological Inventory*, Consulting Psychologists Press, Palo Alto, CA.

Guion, R. M. (1965). *Personnel Testing*, McGraw-Hill, New York.

Katz, R. (1980). 'Time and work: Toward an integrative perspective', *Research in Organizational Behavior*, **2**, 81–127.

Levinson, D. J., Darrow, C., Klein, E., Levinson, M. and McKee, B. (1978). *Seasons of a Man's Life*, Knopf, New York.

Lyons, T. F. (1971). 'Role clarity, need for clarity, satisfaction, tension and withdrawal', *Organizational Behavior and Human Performance*, **6**, 99–110.

Maehr, M. L. and Braskamp, L. A. (1986). *The Motivation Factor: A Theory of Personal Investment*, Lexington, Lexington, MA.

Martin, T. N., Price, J. L. and Mueller, C. W. (1981). 'Job performance and turnover', *Journal of Applied Psychology*, **66**, 116–119.

McEvoy, G. M. and Cascio, W. F. (1987). 'Do good or poor performers leave? A meta-analysis of the relationship between employee performance and turnover', *Academy of Management Journal*, **30**, 744–762.

Mobley, W. H. (1982). *Employee Turnover: Causes, Consequences, and Control*, Addison-Wesley, Reading, MA.

Mobley, W. H., Griffeth, R. W., Hand, H. H. and Meglino, B. M. (1979). 'Review and conceptual analysis of the employee turnover process', *Psychological Bulletin*, **86**, 493–522.

Montagna, P. D. (1974). *Certified Public Accounting: A Sociological View of a Profession in Change*, Scholars, Houston.

Nicholson, N., Wall, T. and Lischeron, J. (1977). 'The predictability of absence and propensity to leave from employees' job satisfaction and attitudes toward influence in decision making', *Human Relations*, **30**, 499–514.

Parasuraman, S. (1982). 'Predicting turnover intentions and turnover behavior: A multivariate analysis', *Journal of Vocational Behavior*, **21**, 111–121.

Porter, L. W. and Lawler, E. E., III. (1968). *Managerial Attitudes and Performance*, Irwin, Homewood, IL.

Price, J. (1977). *The Study of Turnover*, Iowa State Press, Ames.

Seybolt, J. W. (1983). 'Dealing with premature employee turnover', *California Management Review*, **25** (3), 107–117.

Sheridan, J. E. (1985). 'A catastrophe model of employee withdrawal leading to low job performance, high absenteeism, and job turnover during the first year of employment', *Academy of Management Journal*, **28**, 88–109.

Steel, R. P. and Ovalle, N. K. (1984). 'A review and meta-analysis of research behavioral intent and employee turnover', *Journal of Applied Psychology*, **68**, 673–686.

Vardi, Y. (1980). 'Organizational career mobility: An integrative model', *Academy of Management Review*, **5**, 341–356.