

Distinct turnover paths and differential effect of job satisfaction

Tae Heon Lee
North Carolina Central University

ABSTRACT

Based on the framework of the unfolding model of turnover, this study tested differential effects of job satisfaction on different turnover paths. Using a large national sample and survival analysis, this study found evidence that the level of job satisfaction was differentially predictive of voluntary turnover in different turnover paths. For example, job satisfaction was not a good predictor of turnover due to family-related reasons. Findings of this study call for retention management policies tailored to specific reasons for turnover.

Keywords: Unfolding model, turnover, job satisfaction, retention policies, survival analysis

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INTRODUCTION

Employee voluntary turnover has been a critical issue of concern to researchers, managers, and organizations. From a practical perspective, employee turnover, especially avoidable and dysfunctional turnover, can have significant consequences for organizations (Allen, Bryant, & Vandaman, 2010; Campion, 1991; Maertz & Boyar, 2012). The replacement costs including recruiting, selecting, and training costs, lost productivity, loss of high performers and high potential talent can be very costly for organizations (Allen et al., 2010; Casio, 2000; Trevor, Gerhart, & Boudreau, 1997). Given the increasing recognition that human capital can be a critical source of competitive advantage, retention problems may also pose a threat to the organization's long-term competitiveness (Steel, Griffeth & Hom, 2002). Given this practical concern, better retention management based on improved prediction of turnover may promise considerable benefits for organizations.

On the theoretical and empirical research side, voluntary turnover has been an extensively studied behavioral phenomenon in a variety of disciplines such as behavioral science, management, economics, sociology, and industrial relations, and has produced a high volume of literature (Griffeth & Hom, 1995; Griffeth, Hom, & Gaetner, 2000; Lee & Mitchell, 1994; Maertz & Campion, 1998; March & Simon, 1958; Mobley, 1977). Despite the abundance and diversity of theoretical conceptualizations of voluntary turnover, most contemporary models may be grouped in two categories. Content turnover models identify the antecedents or determinants of turnover to explain why some people voluntarily quit their jobs. Process turnover models conceptualize sequential cognitive processes leading to actual turnover to explain how people leave.

Even though various conceptual models and empirical studies in both categories have made incremental contributions to better understanding voluntary turnover, researchers and practitioners have suffered from the lack of comprehensive theories and models that integrate and synthesize theoretical conceptualizations and empirical findings. More than three decades ago, Muchinsky and Morrow (1980) argued, "For the most part each discipline has let its specialty interests rule its domain of inquiry to the exclusion of the factors studied in other disciplines" (p.264). In the same vein, Maertz and Boyar (2012) recently pointed out that the historical lack of theoretical integration is a major cause of researchers' inability to offer effective practical solutions to improving retention management.

To bridge the gap between research and practice, some researchers have taken new approaches. Allen et al. (2010) proposed evidence-based perspectives to change many managers' common misconceptions about turnover. One of their propositions is that there are multiple paths to turnover decisions. Employees quit their jobs for different reasons. Multiple paths may have different retention management implications. For example, job dissatisfaction has been proposed as a main predictor of turnover in many traditional turnover models. But, this new perspective implies that even satisfied employees may decide to quit their jobs because of family reasons, or to take a better job offer. Implementing generic retention management practices aimed at improving overall job satisfaction may not be the best strategy for this kind of turnover.

In fact, considering multiple turnover paths is one of the major theoretical advancements in turnover research. The unfolding model of turnover (Lee, Holtom, McDaniel, & Hill, 1999; Lee & Mitchell, 1994; Lee, Mitchell, Wise, & Fireman, 1996) explicitly incorporates multiple turnover paths and postulates different effects of antecedents like job satisfaction on turnover decisions. Despite the important theoretical and practical implications for retention management,

there has been scant empirical research on the existence of multiple turnover paths and different effects of turnover antecedents. The main proposition of this study is that the inability of previous turnover models to distinguish distinct turnover paths may have been a root cause of the controversial empirical validity of previous turnover studies. Based on the conceptualization of the unfolding model, this study explicitly separates voluntary leavers in a sample from a large, nationally representative data (National Longitudinal Survey of Youth 97: NLSY97) into the four different groups of voluntary leavers according to their specific turnover reasons (Group 1: quit for family reasons; Group 2: quit to look for a job; Group 3: quit to take another job; Group 4: quit for other reasons). These groups are assumed to represent distinct turnover paths. A set of hypotheses is proposed to test different effects of some traditional turnover antecedents using survival analysis.

THEORETICAL REVIEW AND HYPOTHESES

Theoretical review

The most recent major theoretical development in the voluntary turnover literature is the unfolding model (Lee et al., 1999; Lee & Mitchell, 1994; Lee et al., 1996). Lee and Mitchell (1994) introduced a new voluntary turnover model with multiple decision paths coupled with distinct cognitive processes. This model was proposed in response to the growing frustration that previous turnover formulations are conceptually too simple and deficient to represent the whole spectrum of complexity and diversity of individuals' turnover processes (Hom & Griffeth, 1991; Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Hulin, Roznowski, & Hachiya, 1985; Mobley, 1977; Steers & Mowday, 1981). Existing models typically conceptualize voluntary turnover as an economically rational decision making process, whereby employees leave because of job dissatisfaction, but only after searching for, evaluating, and selecting an alternative job. In contrast, the unfolding model explicitly emphasizes that voluntary turnover can take place in many different ways which may deviate from the traditional view of rational or analytic decision making, but have been largely ignored in previous conceptual and empirical studies.

The unfolding model identifies four major turnover paths which are differentiated by the different combinations of (a) the presence or absence of a shock as a turnover initiator, (b) the presence or absence of a scripted action plan for a specific shock, (c) the relative level of job dissatisfaction in the decision process, (d) the presence or absence of an alternative job. Some turnover paths are initiated by a shock. A shock is a jarring event that leads someone to deliberate about leaving his or her job, and can be negative, positive, or neutral; job-related or non-job-related; internal or external to the individual; and expected or unexpected events (e.g., unsolicited job offers, promotion, changes in marital state, transfers, firm mergers, etc.).

The first path (Path #1) is initiated by a shock and a scripted action plan for leaving is already in hand. For example, a female employee leaves after becoming pregnant simply because she planned to do so. This path is not initiated by job dissatisfaction, and no job search is involved. Voluntary leavers following this path may not be dissatisfied employees. The second path (Path #2) also involves a shock, but no plan in place. For example, an individual is passed over for a promised promotion, and leaves without a job search. These reasons for quitting are likely impulsive ones (Allen et al. 2010; Gerhart, 1990). Dissatisfaction may be relatively high because these kinds of shock are often of a negative nature. The third path (Path #3) also starts with a shock, but is different from the second path in that the person considers alternatives and

leavers, usually with a better alternative in hand (e.g., an unsolicited job offer, or a career change). Often, these leavers are not dissatisfied with their jobs, but leave for a better alternative. Unlike the first three paths, the fourth path does not involve a shock. Instead, some people become dissatisfied with their jobs for various reasons and eventually job dissatisfaction accumulated over time initiates turnover decision. This path was the main focus of most traditional turnover models. The unfolding model describes two different ways in which dissatisfaction leads to quitting. Some dissatisfied people leave their jobs without searching for an alternative job (Path #4a), while other dissatisfied people engage in a job search and leave after securing an alternative job (Path #4b) (Mitchell, Holtom, Lee, & Graske, 2001). In either case, job dissatisfaction is the main turnover initiator and can be quite high.

Hypotheses

The lack of predictive validity of turnover models has often been attributed to the use of a single category of voluntary turnover as the criterion variable without separating voluntary leavers based on specific turnover reasons (Abelson, 1987; Campion, 1991). If voluntary turnover is caused by a variety of reasons as suggested by the unfolding model, a turnover model treating all voluntary leavers as homogeneous cannot fully capture the complexity of turnover and the varying effects of different variables on turnover. Therefore, separating voluntary leavers based on specific reasons should be the first step to improve the ability to predict turnover.

As mentioned earlier, this study separates voluntary leavers into four groups based on the specific turnover reasons. Group 1 consists of leavers who quit their jobs for family-related reasons (e.g., pregnancy, child care, spouse's transfer, etc.). Leavers in group 1 are likely to follow either the first path or the second path of the unfolding model. For example, if a female employee has a plan to quit her job after marriage, she is likely to follow the first path. If an employee leaves because of an unexpected spouse's transfer, that person is likely to follow the second path. In either case, the effect of job dissatisfaction on turnover would be minimal. Leavers in group 2 quit their jobs to look for another job. This group is likely to follow either Path #2 or Path #4a. Path #2 is initiated by a shock, and Path #4a is initiated by dissatisfaction. As discussed earlier, in both paths, job dissatisfaction would be quite high and have a strong effect on turnover decision. Group 3 consists of leavers who quit their jobs to take another job. Path #3 or Path #4b are the likely turnover paths for this group. Dissatisfied employees following Path #4b leave only after securing an alternative job in hand. In Path #3, there are two subgroups of leavers. One subgroup consists of leavers who are quite satisfied with their current jobs, but still leave for a better alternative (e.g., an unsolicited job offer). Another subgroup consists of leavers who are not dissatisfied with their current jobs, but leave for something better when a certain kind of shock creates relative dissatisfaction (e.g., a career change after recovering from an illness). Even though group 3 includes some satisfied and dissatisfied employees together, job dissatisfaction can have a significant effect on the turnover of this group as a whole. Group 4 consists of voluntary leavers who quit their jobs for other reasons. Because of the idiosyncratic nature of turnover reasons of this group, this study focuses on the first three groups. Based on the discussion above, the following hypotheses are proposed.

- H1: Job satisfaction is negatively related to turnover in all groups of voluntary turnover.
- H2: The negative relationship between job satisfaction and turnover is weakest in group 1.
- H3: The negative relationship between job satisfaction and turnover is strongest in group 2.

METHOD

Sample and variables

This study used a sample from the National Longitudinal Survey of Youth 97 (NLSY97). NLSY97 is an annual survey which is conducted by the Bureau of Labor Statistics and consists of a nationally representative sample of approximately 9,000 youths. The first round of the survey was conducted in 1997. This study used the data collected in 2006 and 2007 and identified the subjects who were working at the most recent job as of the 2006 interview date. After eliminating the subjects with missing information, the final sample was reduced to 4,716 which consists of 2,375 men (50.4%) and 2,341 women (49.6%) with the age range 22 to 28 as of 2007 interview date. Using the 2007 survey data, the subjects were classified into stayers and leavers. The stayers are the subjects who were still holding their 2006 job as of the 2007 survey date, and the leavers are the subjects who left their 2006 job prior to or on the 2007 survey date. Then, using the information on the specific reasons of turnover, the leavers were classified into involuntary leavers (e.g., layoff, fired, company closing, etc.) and voluntary leavers. Voluntary leavers were further subdivided into four groups (Group 1: quit for family reasons; Group 2: quit to look for a job; Group 3: quit to take another job; Group 4: quit for other reasons). Table 1 reports the numbers and percentages of these groups.

The variables used in this study include tenure, job satisfaction, hourly pay, weekly work hours, total number of jobs held, sex, age, race, education level, and marital status. Tenure is the number of weeks in the 2006 job as of the 2007 survey date and is used as the duration variable in the survival analysis. A 5-point scale was used for job satisfaction with “dislike it very much” coded 1 and “like it very much” coded 5. Total number of jobs is the number of past and current jobs held by the subject. For race, nonwhites were coded 0, and non-Hispanic whites coded 1. For education level, less than high school diploma, high school diploma, some college, and four-year college and over were coded, 1, 2, 3, and 4, respectively. Marital status was coded 1 for “married”, 0 for others.

Analytical method

This study used the survival analysis technique, known as Cox’s (1972) proportional hazards regression model to test the proposed hypotheses. Survival analysis analyzes the time to the occurrence of an event. In the context of the current study, tenure until voluntary turnover is the focal point of interest. The hazard function of the model is given with $h(t, \mathbf{x}) = h_0(t)\exp(\beta\mathbf{x})$, where $h_0(t)$ is the baseline hazard, \mathbf{x} is the vector of covariates, and β is the vector of regression coefficients. The base line hazard can be interpreted as the general turnover probability faced by everyone, conditional on employee tenure. The regression coefficients capture the effects of the covariates on the probability of turnover, conditional on tenure.

RESULTS

Table 2 shows the means, standard deviations, and correlations of the variables. Table 3 shows the estimates of the Cox regression models for the different groups of voluntary turnover. Several results are worth noting. First, the coefficients of job satisfaction are negative and significant in all three groups. Consistent with the hypothesis 1, the more satisfied employees are

less likely to leave in all three groups. Second, the job satisfaction coefficient is smallest in Group 1, which supports the hypothesis 2. Third, the job satisfaction coefficients in Group 2 and Group 3 are larger than that of Group 1. Supporting the hypothesis 3, in particular, the job satisfaction coefficient of Group 2 is largest. An exponentiated individual coefficient has the interpretation of the change in the turnover hazard rate caused by a one-unit change in the corresponding covariate. For example, one unit decrease in job satisfaction increases the turnover hazard rate by 38% ($\text{Exp}(-.48)=.62$) for Group 2, 36% ($\text{Exp}(-.44)=.64$) for Group 3, but only 17% ($\text{Exp}(.19)=.83$) for Group 1. Fourth, the significant positive coefficients of sex and marital status in Group 1 suggest that married women are more likely to leave for family-related reasons. Fifth, age is negatively related to voluntary turnover in Group 2 and Group 3. Sixth, the more jobs a person has had, the more likely the person is to leave. Seventh, people with a higher education level are more likely to leave with an alternative job in hand. Even though separate hypotheses are not proposed, Table 4 shows the estimates for Groups 1, 2, and 3 combined, and Table 5 shows the estimates for Groups 1, 2, 3, and 4 combined. For the combined groups, job satisfaction, hourly pay, work hours, and age are significantly related to voluntary turnover. Figure 1 shows the estimated base line hazard rates for Groups 1, 2, and 3. Consistent with previous studies, turnover hazard tends to increase early in tenure and begins to decrease in the second year in all three groups. Another pattern worth noting is that after a certain point in tenure, turnover hazard begins to increase again, which may reflect young workers' tendency of frequent job change.

DISCUSSION

Considerable effort on both theoretical and empirical sides has been devoted to understanding the determinants and processes of employee voluntary turnover. Among researchers and practitioners, however, there has been a growing frustration with lack of predictive validity of traditional turnover models and consequently lack of practical implications (Lee & Mitchell, 1994; Maertz & Campion, 1998, 2004; Steel, 2002). In response, both researchers and practitioners have called for new ideas and approaches to better understand voluntary turnover. This study builds on recent conceptual developments to further move the field forward.

This study built on the unfolding model's new conceptualization that there are multiple distinct turnover paths as opposed to a single path in traditional models, and that the determinants of turnover, especially job (dis)satisfaction, are likely to have different effects in different turnover paths. By using a large, national sample, this study was able to separate stayers and leavers of different types, and estimate the differential predictive effects of job (dis)satisfaction and other variables in different turnover paths, which was rarely done in previous studies. This study found the evidence supporting all three hypotheses. First, consistent with previous studies (Allen et al., 2010; Jackofsky & Peters, 1983; Mobley, Griffeth, Hand, & Meglino, 1979; Price & Mueller, 1981; Tett & Meyer, 1993), job (dis)satisfaction is a valid predictor of turnover in all three groups, though the effect is much smaller in Group 1 compared to other groups. Second, the effect of job (dis)satisfaction on turnover was significantly different in different turnover paths, which is consistent with the propositions of the unfolding model and the findings of the previous studies (Lee, Gerhart, Weller, & Trevor, 2008; Lee, Holtom, McDaniel, & Hill, 1999). As shown in the results section, the job satisfaction effects on turnover

hazard rate for Group 2 (quit to look for a job) and Group 3 (quit to take another job) were over twice as large as that for Group 1 (quit for family reasons).

Finding differential effects of job satisfaction on turnover has important theoretical as well as practical implications. On the theoretical side, findings from this study and previous studies based on the framework of multiple turnover paths suggest that explicitly specifying multiple paths can improve the overall model fit and consequently the predictive validity of the model. Turnover scholars need to follow this route of research to further verify the validity of the implications of the unfolding model. On the practical side, managers expect researchers to provide them with practical advice concerning effective retention management. If employees leave for different reasons and job dissatisfaction is not a key driver in some cases, managers need to uncover various turnover reasons and identify what types of turnover are of main concern at their organizations. For example, if Groups 2 and 3 are the main types of turnover at the organization, managers need to work with human resource personnel to monitor job satisfaction on a regular basis and develop policies to influence job satisfaction. In cases where high performers are constantly hired away by other organizations, or a large number of employees leave due to family-related reasons, retention policies focusing on job satisfaction may not be the best strategy because job dissatisfaction is not a likely root cause. For example, if Group 1 type of turnover is of main concern, work-family balance policies such as on-site child care, flexible work schedule, and telecommuting may be efficient retention management policies (Lee, Gerhart, Weller, & Trevor, 2008). In sum, managers need to develop and implement retention management policies tailored to specific reasons for turnover to maximize the ability to control turnover (Allen et al., 2010; Mitchell et al., 2001).

LIMITATIONS AND FUTURE RESEARCH

Although the present study makes a contribution to enriching the turnover research by building on recent conceptual and methodological developments in the turnover literature, there are several limitations to the present study that need to be addressed in future research.

First, while this study provides important empirical evidence supporting the unfolding model, it still did not test all possible turnover paths. Future research needs to investigate a broader range of turnover paths to fully understand the complexities of turnover behaviors implied by the unfolding model. Second, while job satisfaction, a traditional “push factor,” and other control variables were included in this study, variables representing “pull factor” like availability of alternatives were not included. A more comprehensive list of antecedents of turnover identified by the content models of turnover needs to be examined to better understand the interactions of these variables in influencing turnover. Third, while the rich and longitudinal contents of the national sample used in this study allowed for empirical testing of some important implications of the unfolding model, the narrow age range of the sample makes the generalizability of the findings in this study to other age cohorts somewhat limited. Fourth, this study used two rounds of the survey data. Future research needs to investigate the changing patterns of different turnover paths over a longer range of employee tenure and age. Finally, as mentioned earlier, the lack of integrative turnover theories and models makes it difficult to comprehend the full scale of complexities associated with turnover. More effort needs to be directed to the integration of conceptualizations and empirical findings from the content and process models of turnover.

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Appendix

Table 1. Turnover Summary: n=4,716

Stayers	3,077 (65.2%)
Leavers	1,639 (34.8%)
Involuntary turnover	334(7.1%)
Voluntary turnover	
Quit for family reasons	81(1.7%)
Quit to look for a job	111(2.4%)
Quit to take another job	513(10.9%)
Quit for other reasons	600(12.7%)

Table 2. Mean, Standard Deviation, and Correlation

Variable	Mean	S.D.	1	2	3	4	5	6	7	8
1.Satisfaction	3.78	1.12								
2. Hourly pay	16.40	41.57	.06							
3. Work hours	35.46	12.30	-.04	-.02						
4. # of jobs	7.82	3.65	-.01	.00	.02					
5. Sex	1.49	0.50	-.02	-.04	-.13	.03				
6. Age	24.88	1.42	.04	.02	.11	.20	.00			
7. Race	.53	.49	.02	.02	-.01	.16	-.01	-.01		
8. Education	2.64	1.04	.05	.01	-.06	.07	.11	.03	.21	
9. Marital status	.22	.41	.05	.01	.02	.05	.09	.15	.08	-.02

Note: n=4,716; Correlation coefficients significant at the 5% level or better in bold.

Table 3. Cox Proportional Hazards Coefficients for Groups 1, 2, & 3: Separate estimation

	Group 1	Group 2	Group 3
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	(Quit for family reasons)	(Quit to look for a job)	(Quit to take another job)
Job satisfaction	-.19(.09)*	-.48(.07)***	-.44(.03)***
Hourly Pay	-.07(.02)**	-.02(.01)	-.00(.00)*
Work hours	-.02(.00)*	.00(.00)	-.00(.00)
# of jobs	.04(.03)	.07(.02)**	.11(.01)***
Sex	2.13(.37)***	-.25(.19)	-.11(.09)
Age	-.05(.08)	-.18(.07)**	-.17(.03)***
Race	-.11(.22)	-.18(.19)	-.05(.09)
Education	-.52(.12)***	-.12(.09)	.23(.04)***
Marital status	.59(.23)*	-.26(.25)	.00(.10)
Log likelihood	-553.81	-839.92	-3831.71

Notes: *** $p < .001$, ** $p < .01$, * $p < .05$ and standard errors in parentheses.

Table 4. Cox Proportional Hazards Coefficients for Groups 1, 2, & 3: Combined

Job satisfaction	-.42 (.03)***
Hourly Pay	-.01(.00)**
Work hours	-.00(.00)
# of jobs	.09(.01)***
Sex	.06(.07)
Age	-.16(.02)***
Race	-.07(.07)
Education	.08(.03)*
Marital status	.05(.09)
Log likelihood	-5297.48

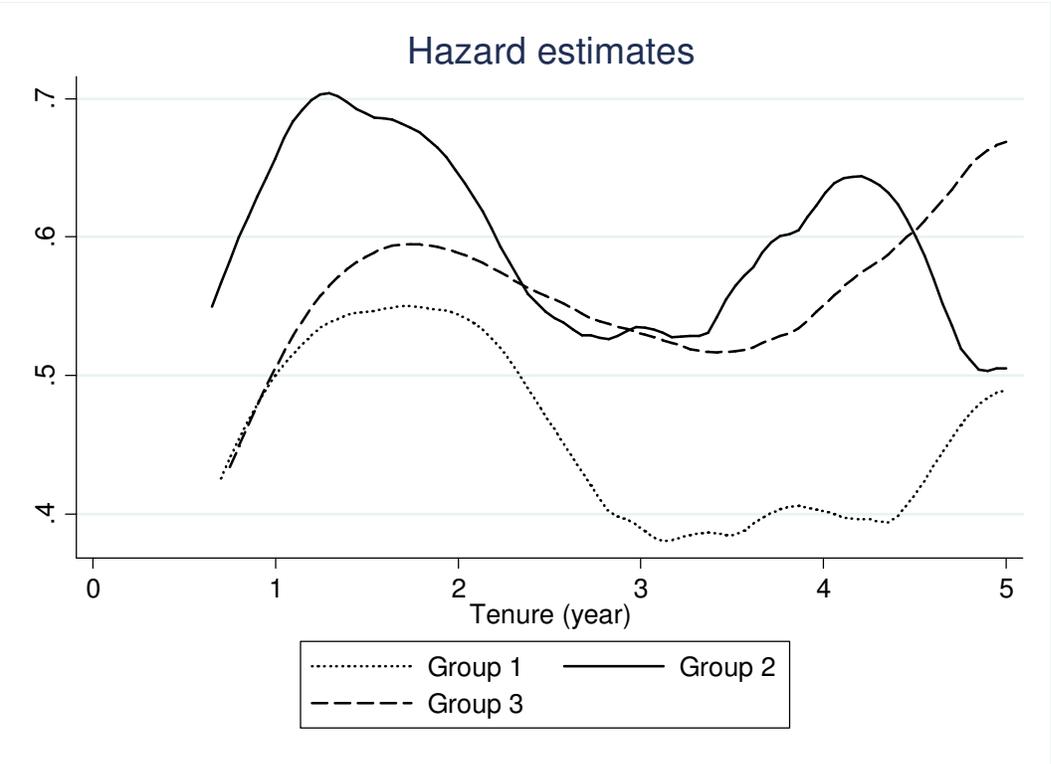
Notes: *** $p < .001$, ** $p < .01$, * $p < .05$ and standard errors in parentheses.

Table 5. Cox Proportional Hazards Coefficients for All Voluntary Turnover Combined

Job satisfaction	-.37 (.02)***
Hourly Pay	-.01(.00)***
Work hours	-.00(.00)**
# of jobs	.10(.00)***
Sex	.07(.05)
Age	-.17(.02)***
Race	-.03(.05)
Education	.04(.02)
Marital status	-.11(.07)
Log likelihood	-9879.81

Notes: *** $p < .001$, ** $p < .01$, * $p < .05$ and standard errors in parentheses

Figure 1. Hazard Rate Estimates



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