Journal of Management
1995, Vol. 21, No. 2, 211-229

Is the Past Prologue?: A Test of Ghiselli's Hobo Syndrome

Timothy A. Judge
Shinichiro Watanabe
Cornell University

Ghiselli (1974) observed that some workers possess internal impulses to migrate from one job to another irrespective of better alternatives or other apparently rational motives. Ghiselli labeled this tendency the "hobo syndrome." The present study tested the validity of the hobo syndrome using a national longitudinal sample of young workers. Results of event history analyses indicated support for the hypothesis that turnover depends on the number of times an individual has left his or her job in the past. The meaning and implications of the results in light of recent dispositional research are discussed.

Some time ago, Ghiselli (1974) provided a series of observations about past and future research in industrial/organizational psychology. These observations were based on his experience as a pioneering researcher in the field, and were meant to serve as a guide regarding some concepts and variables future researchers ought to consider. One such concept suggested by Ghiselli was the "hobo syndrome," or the tendency for workers to engage in job hopping behavior. Despite recurrent discussions of Ghiselli's observation (e.g., Hulin, 1991), the validity of his hypothesis has not been directly substantiated. The purpose of the present study is to test Ghiselli's hypothesis using a relatively recent methodological technique, event history analysis.

The Meaning of the "Hobo Syndrome"

Ghiselli's (1974) hypothesis of a hobo syndrome was inductive, born from his many years of formal interviews and informal conversations with workers. He defined the hobo syndrome as "... the periodic itch to move from a job in one place to some other job in some other place" (p. 81). Ghiselli argued that this *wanderlust* derived from instinctive impulses, writing:

> This urge to move seems not to result from organized, logical thought, but rather would appear more akin to raw, surging, internal impulses, perhaps not unlike those that cause birds to migrate. Floaters regularly

Direct all correspondence to: Timothy A. Judge, Cornell University, NYSSILR, Center for Advanced Human Resource Studies, 393 Ives Hall, Ithaca, NY 14853-3901.

> provide socially acceptable explanations for their peripatetic activity, but under careful examination these explanations turn out to be little more than rationalizations. The simple fact is that after being in one place for a matter of months, or perhaps a year or so, depending on the strength and periodicity of this itch, the individual is impelled to pack up and move to another place and another job (p. 81).

The concept of the hobo syndrome suggests that workers most likely to leave their current job are those who have demonstrated signs of the hobo syndrome by leaving jobs often in the past.

A similar observation regarding the hobo tendencies of some workers was reached by Veiga (1981), although he did not explicitly label the behavior he observed. In a study of the career movements of managers, Veiga found that some managers changed jobs a great deal in their careers, but these changes apparently were not due to desires for higher compensation or job dissatisfaction. This lead Veiga (1981) to ponder, "Although mobile managers are more restless and driven than the others, it is not clear why" (p. 34). He later concluded, "Mobile managers give every indication that they march to the beat of a different drummer—for many, mobility is in their blood ... To the extent that mobility is an instinct, [organizations] will have to contend with some managers who are unwilling to stay put long" (p. 38). Veiga's data and conclusions are strikingly similar to those reached by Ghiselli (1974) regarding the desire of many workers to move for apparently instinctive reasons.

The plausibility of Ghiselli's (1974) hypothesis is bolstered by research from other, related literatures. Research from the labor economics literature indirectly supports the prediction that past quits predict future turnover behavior. Research has demonstrated that the greater the number of spells of unemployment, the greater the probability that an individual will be unemployed at a later point in time (Heckman & Borjas, 1980). As pointed out by Heckman and Borjas (1980), this cycle of unemployment may occur because past unemployment leads to a loss of skills during unemployment, or because individuals may work in occupations and industries which are subject to frequent layoffs. An alternate explanation, one that is more consistent with Ghiselli's (1974) hypothesis, is that past unemployment may reflect inherent dispositional characteristics (e.g., traits, preferences) that precipitate future occurrences of unemployment. A study on worker mobility in the industrial relations literature also indirectly supports the hobo syndrome. Blumen, Kogan, and McCarthy (1955) found that dividing workers into "stayers" versus "movers" significantly improved the fit of their Markov model of inter-industry mobility. Although differences in mobility among workers have been recognized in the labor economics literature, mobility tendencies typically have been treated as residuals without further investigation (Granovetter, 1986).

In the management literature, a number of researchers have suggested that *absence proneness*, or the tendency for workers' past absences to be predictive of future absence, is a relevant construct (Garrison & Muchinsky, 1977). In fact, research supports the proposition that prior absence predicts future absence (Breaugh, 1981; Clegg, 1983; Harrison & Hulin, 1989; Ivancevich, 1985; Keller, 1983; Morgan & Herman, 1976). Given the similarity between absence and turnover as manifestations of employee withdrawal (Blau & Boal, 1978; Bluedorn, 1982b; Hulin, 1991; Mobley, 1982b), the findings regarding the predictive ability of past behavior with respect to absence may generalize to turnover as well. In fact, Price and Mueller (1986) found that a variable they labeled as *recent turnover history*, measured by asking the employee how many places they had worked in the last 5 years, significantly predicted turnover. A similar relationship between past quits and turnover intentions was found in data reported by Judge and Locke (1993). Although none of these authors interpreted the meaning of their findings in the context of the hobo syndrome, the results do suggest that the syndrome may exist.

Ghiselli's (1974) hypothesis, and these related streams of research, are supportive of an often-cited maxim in industrial/organizational psychology, "The best predictor of future behavior is past behavior." In fact, this is one of the principal assumptions underlying the use of biographical information to select workers (Mael, 1991; Owens, 1976). Research has shown that biodata are predictive of employee behaviors such as turnover (Schmitt, Gooding, Noe & Kirsch, 1984). Thus, consistent with Ghiselli's (1974) hypothesis and the supporting streams of research, it is hypothesized that the number of times individuals have left their jobs in the past will significantly influence the probability that they will leave their present job.

A necessary condition for a test of any hypothesis is that theoretically-relevant influences which may provide alternative explanations of the results be controlled experimentally or statistically (James, 1991). This is particularly important in the context of the present study since there are a number of potential explanations of the link between past and present quits that are competing alternatives to the concept of the hobo syndrome. For example, some individuals may exhibit a pattern of turnover behavior not due to a desire to job hop per se, but because they have a greater number of labor market alternatives. Those who are highly educated, or in favorable labor markets, may quit their jobs more often because more alternatives are available. Accordingly, when estimating the effect of past turnover on present turnover, it is important to control for education and labor market conditions.

In addition to education and labor market conditions, several other relevant control variables need to be taken into account. According to Mobley's (1982a) review, past research has identified a number of important influences on turnover, including job satisfaction (Carsten & Spector, 1987), age (Porter & Steers, 1973), experience (Mobley, 1982b), wage rates (Dalton & Todor, 1979), marital status and alternative sources of income (Muchinsky & Tuttle, 1979), the industry in which the individual works (Price, 1977), and whether the worker is employed in a rural versus urban area (Parsons, 1977). Because past research has suggested that these variables affect turnover, their influence was controlled for in the analysis to reduce omitted variable problems.

The Importance of Event History Analysis to Turnover Research

Peters and Sheridan (1988) argued that despite a wealth of research, the turnover literature has provided few recommendations for managing employee turnover. According to Peters and Sheridan, one reason for this situation is that past research designs often have been inherently flawed, which has lead to a diminished ability to integrate findings across studies. The principal limitation in past turnover research is that most studies have been cross-sectional in nature, and thus have not incorporated employee flows in to and out of the organization in the analysis.

Specifically, turnover research often has failed to consider several important factors related to employee movement. First, turnover increases with the length of the measurement window used in a particular study. As the measurement window widens, the base rate of turnover generally increases as well (Peters & Sheridan, 1988). For example, over an infinite amount of time, 100% of all job incumbents will terminate their employment. The arbitrary choice of the length of the measurement window generates inconsistency across studies because the base rate of turnover substantially affects its correlation with other variables (Hulin, 1991). Thus, inconsistent results with respect to turnover may be due to an artifact of the interval over which turnover is assessed.

A second problem in turnover research generated by typical cross-sectional designs is that of right censoring, or the fact that the choice of when to terminate the study affects the results observed when relating turnover to other variables. For example, Employee A may quit the day before the study concludes, and Employee B may quit the day after the study concludes, yet only one of these employees is counted as having left the organization. This produces inconsistency across studies because if a study concludes at a particular date, yet a large group of employees happens to quit shortly after turnover is measured, the observed results may be seriously skewed.

Furthermore, traditional turnover designs treat terminations the day the study begins (Time 1) as the same as the day the study concludes (Time 2). As noted by Peters and Sheridan (1988), this is a weak assumption. It is likely that predictor variables measured at Time 1 have a stronger effect on individuals who terminate closer to Time 1 than on those who terminate at Time 2. Failing to analyze *when* individuals leave their jobs also wastes information on why some leave soon after joining an organization while others leave at a later point in time.

Finally, left censoring can also be a problem, where the sample consists of only those workers who are employed at the beginning of the study, regardless of their hire dates (Peters & Sheridan, 1988). As a result, cross-sectional designs result in samples consisting of workers who have (survived) long enough to be included in the study. Consequently, the tenure distribution of the sample may be skewed, and this distribution will vary as a function of when the study commences. Thus, the choice of when to commence a study affects the results observed when predicting turnover from other variables.

As pointed out by Morita, Lee and Mowday (1989) and Peters and Sheridan (1988), a solution to these problems is event history analysis. Event history analysis is a general term for statistical techniques in which changes in states over time are modeled (Allison, 1984; Tuma & Hannan, 1984; Yamaguchi, 1991). These techniques focus on the states an individual was in and is in, the length of time spent in these states, and the rates of movement from state to state (Harrison & Hulin, 1989).

Although it has typically been employed in the biomedical life sciences, event history analysis adapts easily to organizational behavior phenomena, such as absenteeism and turnover. Consequently, event history analysis has been utilized by several researchers in this area (e.g., Fichman, 1988; Gerhart, 1990; Harrison & Hulin, 1989; Morita et al., 1989). Because it considers how long it takes for turnover to occur, event history analysis obviates the base rate problems inherent in cross-sectional research. Moreover, event history analysis is dynamic in that it deals with multiple waves of turnover data and tracks the time intervals between job changes and the rates of survival across these time intervals. In contrast, conventional cross-sectional research focuses on one point in time, assuming that the relationship between the predictor and criterion is stable over time. As Tuma and Hannon (1984) pointed out, unless one uses longitudinal data, this assumption is untested, and when analyzing turnover data, is often tenuous (Peters & Sheridan, 1988). Thus, event history analysis avoids the problems inherent in traditional cross-sectional designs, and is well-suited to test the validity of Ghiselli's (1974) hypothesis of a hobo syndrome.

Methods

Data Source and Sample

The data analyzed in this study were collected as part of the National Longitudinal Surveys Youth Cohort (NLSY), from 1979 through 1988. For the purposes of this investigation, the Work History, Current Population Survey, and Key Variables tapes were merged. The sample size for the NLSY is N=12,686.

As of 1988, age of the respondents ranged from 23 to 32 years; the average age was equal to 27.2 years (SD=2.3 years). Average level of respondent education was 12.9 years (SD=2.4 years); education ranged from 0 to 20 years. Job tenure in the respondent's first job in 1988 ranged from 1 week to the full year; the average respondent worked at their first job an average of 34.5 weeks in 1988 (SD=11.9 weeks). Using a 1 (very low) to 6 (very high) scale, respondents rated the average level of 1988 unemployment in their relevant labor market as 2.5 (SD=0.73). Average hourly wage rate in 1988 was $8.64 ($SD$=$4.59). In 1988, 51% of respondents were married and the average annual family income was $28,090 ($SD$=$19,791). As rated on a 1 to 4 scale, average level of respondent job satisfaction was 3.27 (SD=0.73). In 1988, 79% of respondents lived in urban versus rural areas. From the period of 1979 to 1987, the average respondent had quit 2.32 jobs (SD=2.77 jobs); this figure ranged from no quits to 19 quits. In 1988, 26.0% of individuals quit their jobs.

Measures

Voluntary turnover. As many as 5 job changes were tracked each year during the observation period (1979-1988). Because event history analysis considers the duration of employment in addition to the occurrence of turnover, four variables from the NLSY surveys were used for the event history analyses: (1) date of beginning employment on a particular job; (2) date of stopping employment on each job; (3) the spell or duration of employment in each job; and (4) type of turnover (voluntary versus involuntary). Voluntary turnover was coded as 1 if the employee left his or her job voluntarily. Employees not leaving their job were coded as 0. Involuntary separations (laid off, fired, program ended, or plant closed) also were coded as 0 because these did not represent voluntary separations.

Number of past quits. For the purposes of the event history analysis, the number of past quits was measured by recording each voluntary job change that occurred during the entire study period. Each successive voluntary job exit became an event that was accumulated throughout the study.

Control variables. Education (highest grade completed as of May 1 of each survey year), job tenure (total length of experience measured in weeks at each job), respondents' perceptions of the unemployment rate (1=very low to 6=very high), marital status (1=married, 0=otherwise), hourly wage rate, age, rural versus urban residence (1=urban, 0=rural), family income measured in dollars, and 11 dummy variables representing the industry characterizing each job in which the respondent worked (the base cell was the entertainment and recreation services industry) were assessed through specific interview questions. The dummy variables representing the industries were effect coded (Darlington, 1990).

Event History Analysis

Because event history analysis is computationally very demanding, we could not use the full sample in the analysis. Therefore, the largest possible random sample (12%; N=1,530) was drawn from the complete sample. Examination of descriptive statistics from this random sample revealed almost identical results to those for the full sample reported above. The standard one-person, one-record data set (the *person* data set) was transformed into a one-person, multiple period data set (the *person-period* data set). As a result, the data set was inflated to 6,836 observations. Rather than analyze each turnover event separately, we pooled the repeated event data into a single analysis and used the number of past quits as a continuous predictor of future turnover.

Event history analysis utilizes the survivor and hazard functions (Singer & Willet, 1991). One way of representing the survival and the hazard rates is a life table, which depicts duration and termination of employment over time intervals. Derivation of a life table is indispensable to event history analysis because it reveals the shape of the distribution of turnover. Results from the life table provide useful information about which event history model or models are appropriate among those which have been discussed in the literature (e.g., Weibull, exponential, normal, logistic, etc.). When studying voluntary turnover, the survivor function represents the probability that a randomly selected employee has not left his or her job by time t. The survival rate was computed based on Cutler and Ederer's (1958) method; the proportion of employees surviving (P_j) was defined as the cumulative portion of observations surviving to the time at the beginning of each of the 57.6 week intervals:

$$P_j = (1-q_{j-1})P_{j-1},$$

where $P_1=1$, and q_j is the number of observations which exit divided by the size of the risk set (the risk set is the number of observations minus the number of censored observations, defined as the number of stayers over each time interval, all divided by two).

The hazard function represents the probability that voluntary turnover will occur at time t for a randomly selected individual, given that the employee is at risk for turnover at that time. The hazard rate (λ_j), again based on Cutler and Ederer (1958), was defined as follows:

$$\lambda_j = 2q_j/[h(2-q_j)],$$

where h is the width of the time interval and q_j is as defined above.

As will be shown later, the survivor function estimated in the present study resembled a binomial distribution where the probability of turnover was relatively small. This is consistent with past research on the base rate of turnover, and makes it necessary to utilize estimation procedures that account for the distributional properties of turnover (Hulin, 1991). Because in the present study the sample size is large and the probability of turnover is low, the binomial distribution representing turnover can be approximated by the Poisson distribution (Mendenhall, Reinmuth, Beaver & Duhan, 1986). When one considers the Poisson distribution in a temporal framework, then the time interval between events (in this case, turnover) follows the exponential distribution (Avery & Hotz, 1984). When the survivor function follows the exponential distribution, in turn, the Weibull model will provide a reasonable fit to the data (Fichman, 1989). Therefore, a Weibull model was estimated in the present study. Additionally, a Cox survival regression model was estimated since it is the most widely used event history analysis model in psychological research, and offers the advantage of requiring no assumptions about the underlying distribution of turnover. The mathematics of these estimations are provided in the Appendix (see also Cox, 1972; Fichman, 1989; Kalbfleisch & Prentice, 1980; Morita et al., 1989).

Unobserved heterogeneity. The models discussed thus far are based on an assumption of homogeneity of the survival distribution across individuals. This, in turn, implies the assumption that all relevant covariates have been included in the model. However, this assumption is rarely met in practice (James, 1991). Even if the hazard rate is constant over time for any individual, differences (across individuals) in the hazard rate that are not specified in the model will function as unobserved sources of heterogeneity and cause inconsistent or biased parameter estimates and/or inferences based on inappropriate standard error estimates (Heckman & Singer, 1984; Kiefer, 1988).

A strategy to deal with the problem of unobserved heterogeneity is to explicitly include possible sources of that heterogeneity in the model. In the present study, for example, historical year when the data were recorded, 1,529 dummy variables for each individual, and the level of job satisfaction at every job change, could be regarded as the possible sources of heterogeneity effects. However, the inclusion of such variables in the model is inefficient, impractical, or impossible. An alternative approach is to assume that the transition rate from one state to another equals the function of the observed covariates ($\phi(z)$) multiplied by the gamma-distributed disturbance term assumed to influence the rate for the ith sample member (ϵ):

$$r(t; z) = \phi(z)\epsilon$$

If we assume that the unobserved variable, ϵ, has the gamma distribution with parameters θ and R, then the probability density function of ϵ takes the form:

$$f(\epsilon) = \theta^{R}\epsilon^{R-1}e^{-\theta\epsilon} / G(R),$$

where G(R) is the gamma function, $\theta = \mu_\epsilon / \sigma_\epsilon^2$, and $R = \mu_\epsilon^2 / \sigma_\epsilon^2$.

Some statistical packages are now available that allow estimation of parameters with consideration of unobserved heterogeneity. LIMDEP 6 allows estimation of the Weibull model where the gamma-distributed disturbance term can be included into the functional specification. This type of analysis has not been previously conducted with respect to predicting turnover, and should permit more confidence in the results because this analysis obviates the criticism that the results were biased due to omitted variables.

Results

As indicated earlier, the life table depicts the duration and termination of employment over time. Table 1 illustrates the estimated life table for the entire study period (1979-1988). The table illustrates that most individuals who left their jobs did so early in the time frame of the study, and the rate of turnover decreased over time.

The profiles of survivor and hazard rate functions based on the life table are depicted in Figures 1 and 2, respectively. Examination of the survivor profile in Figure 1 reveals that the unconditional probability of staying beyond time t decreased over time. Nearly 30% of employees voluntarily left their first job over the course of the entire survey period. The hazard profile shown in Figure 2, on the other hand, reveals that the risk of being a voluntary mover decreased as the duration of the tenure on a job increased, suggesting that as individuals became more committed to and made more investments in their job, the costs of moving increased. Similar shapes of the distribution of turnover were

Table 1. Estimated Life Table[a]

Duration	*Enter*	*Censored*	*At Risk*	*Exited*	P_j	λ_j
0.0-57.6	6,836	2,647	5,512	3,915	1.0000	0.0191
57.6-115.2	274	185	181	67	0.2898	0.0079
115.2-172.8	22	4	20	4	0.1828	0.0039
172.8-230.4	14	0	14	2	0.1463	0.0027
230.4-288.0	12	3	10	1	0.1254	0.0017
288.0-345.6	8	0	8	0	0.1134	0.0000
345.6-403.2	8	1	7	0	0.1134	0.0000
403.2-460.8	7	3	5	0	0.1134	0.0000
460.8-518.4	4	3	2	0	0.1134	0.0000
518.4-576.0	1	1	0	0	0.1134	0.0000

Note: [a] Number of observations = 6,836; Number of observations exiting = 3,989; Number of observations censored = 2,847.

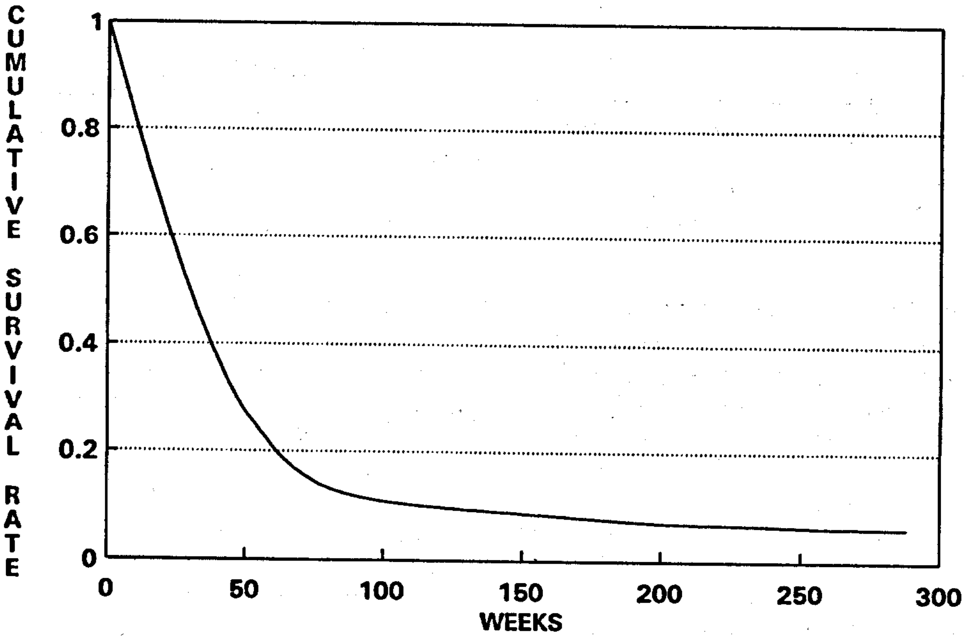

Figure 1. Estimated Survival Function

obtained when the length of the measurement window was successively shortened (e.g., 1980-1988, 1981-1988, 1982-1988, etc.).

Table 2 provides the maximum likelihood estimates for the Weibull and Cox regression models. Presentation of the variables is broken into several categories (human capital, labor market, industry, past turnover). The Weibull function represents the time of survival on the job. Conversely, the Cox survival regression function represents the rate of turnover over time. Thus, a significant

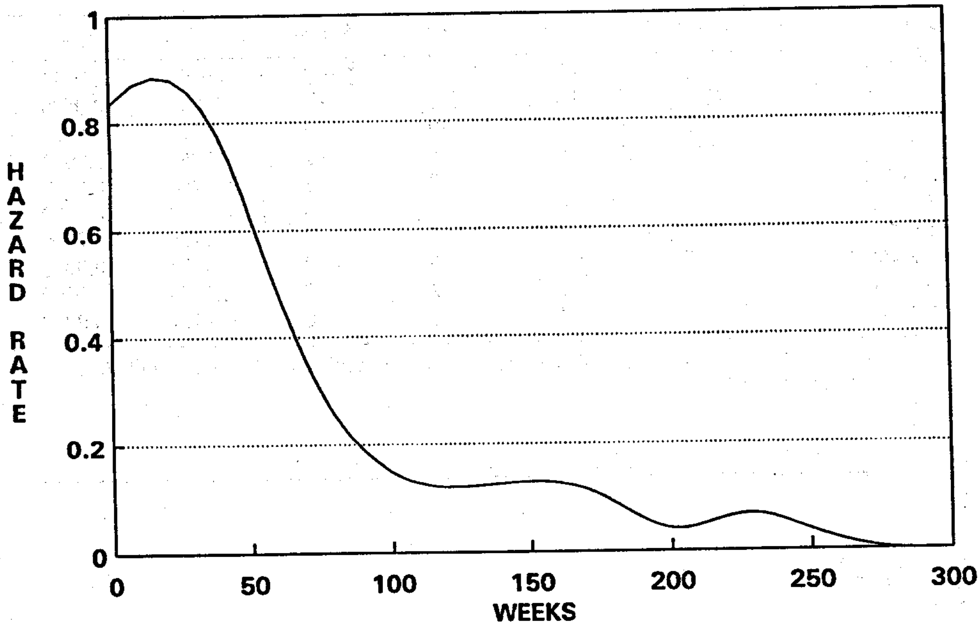

Figure 2. Estimated Hazard Function

coefficient which positively predicts survival (the Weibull function) generally would be expected to negatively influence the rate of turnover (the Cox survival regression). The table reveals that the Cox survival regression and Weibull model estimates are inversely related as expected, and the absolute magnitude of the estimates are similar. Inspection of the influences on turnover in Table 2 reveals that the effects are quite consistent with those produced by previous studies on turnover, suggesting that the data are behaving normally.

Both the Cox and Weibull functions supported the hypothesis of the hobo syndrome. The coefficient estimate ($+.069, p < .01$) in the Cox regression means that each additional voluntary exit increases the log of the hazard by .069, controlling for the influences of other variables. Exponentiating the coefficient yields a value of 1.07, indicating that each additional previous quit increases the hazard by an estimated 7%. A similar interpretation exists for the Weibull model, except that the sign of the coefficient needs to be reversed as explained above.[1]

Figures 3 and 4 provide illustrations of the hobo syndrome for the survival and hazard functions, respectively. In both figures those individuals who had more past quits than the mean were classified as "movers" and those who had fewer past quits than the mean were classified as "stayers." Figure 3 shows that those who quit numerous jobs in the past were much less likely to survive on the job than those who quit few jobs. Figure 4 shows that the hazard

Table 2. Maximum Likelihood Estimates of Event History Models Predicting Voluntary Turnover[a]

Variable	*Weibull Model*		*Cox Survival Regression Model*	
	β	*t*	*β*	*t*
Human Capital Variables				
Education	-.046	-0.18	.001	0.28
Age	-.013	-3.20**	.012	2.03*
Married	-.043	-2.06*	.120	3.17**
Family Income	.001	1.87	-.002	-2.30*
Job and Labor Market Characteristics				
Wage Rate	-.001	-1.40	.001	2.60*
Job Tenure	-.001	-21.31**	.003	5.68**
Unemployment Level	-.001	-1.02	.001	1.25
Urban Residence	.001	0.85	-.001	-1.31
Industry Variables				
Agriculture, Forestry, & Fishery	.190	1.95	-.240	-2.14*
Mining	.031	1.35	-.310	-1.30
Construction	.055	0.80	-.007	-0.91
Manufacturing	.055	1.08	-.062	-1.00
Transportation	-.092	-1.27	.180	1.70
Communication & Utilities	-.270	-6.77**	.300	6.77**
Finance, Insurance, & Real Estate	-.100	-1.05	.099	1.07
Business and Repair Services	-.160	-2.34*	.160	2.24*
Personal Services	-.005	-0.08	-.009	-0.27
Professional and Related Services	-.056	-0.98	.035	0.58
Public Administration	.068	0.55	-.078	-0.59
Variable Representing Hobo Syndrome				
Past Turnover	.067	22.71**	-.069	-10.79**

Notes: [a] For the industry dummy variables, the entertainment and recreation services industry served as the excluded group.
* $p < .05$
** $p < .01$

(i.e., turnover) rate for "stayers" was lower than the rate for "movers." Both figures illustrate support for the hobo syndrome.

As noted earlier, recent advances in statistical theory and computer software have made it possible to estimate the effect of independent variables on the dependent variable accounting for the effects of unobserved heterogeneity. Accordingly, we re-estimated the coefficient for the past turnover history variable accounting for unobserved heterogeneity. The result of this estimation confirmed the significant coefficient ($p < .01$) for past turnover history. Accounting for unobserved heterogeneity did not change the significance of the hypothesized coefficient, suggesting that confidence can be placed in the internal validity of the results.

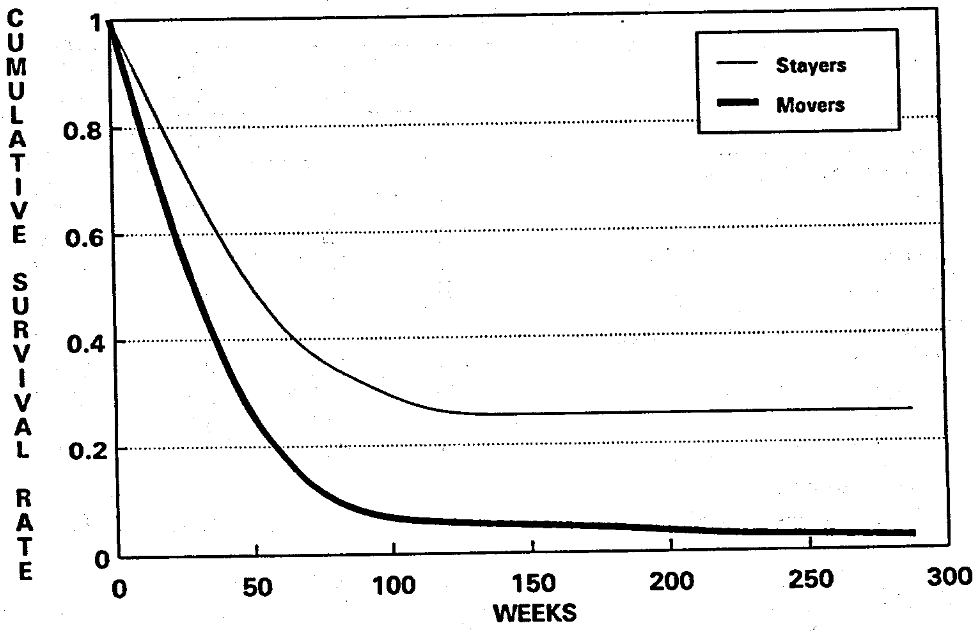

Figure 3. Survival Function for Stayers and Movers

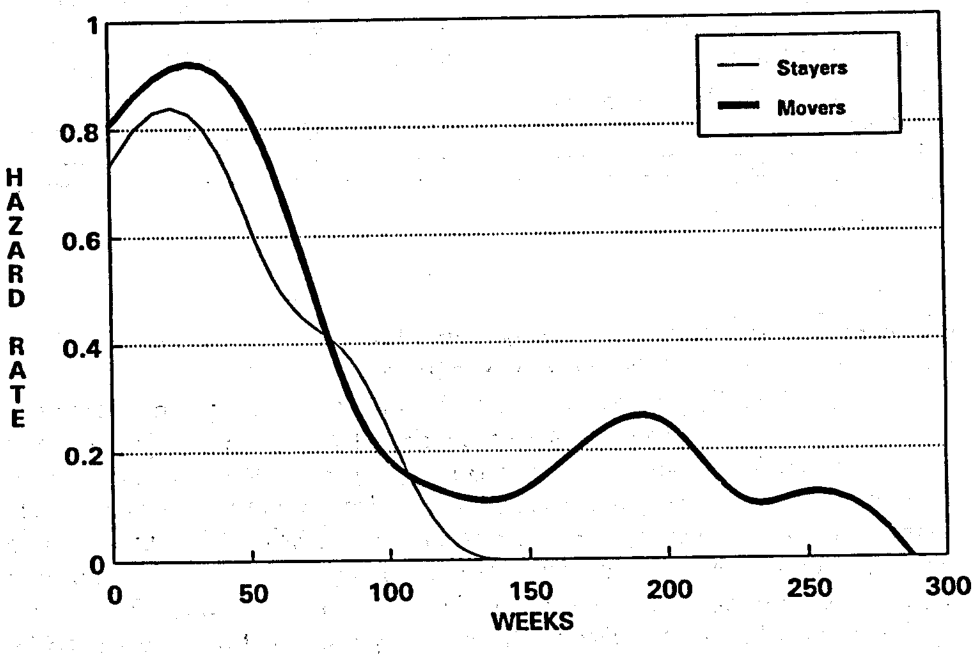

Figure 4. Hazard Function for Stayers and Movers

Discussion

The present study provided support for Ghiselli's (1974) hypothesis of a "hobo syndrome." Past turnover behavior was a significant predictor of present turnover behavior; this result was quite robust to alternative methodological specifications. Furthermore, the effect of past turnover on present turnover was significant in the presence of a series of control variables derived from a review of past research. Finally, accounting for unobserved heterogeneity failed to change the significant effect of the hobo syndrome. All of this serves to increase confidence in the validity of the results.

Although the results of this study suggests that Ghiselli's (1974) hypothesis of a hobo syndrome is a valid one, we cannot be fully confident in this until we better understand the psychology behind this effect. Why is it that some workers seem to have a periodic urge to move from one job to another? The present study suggests that this wanderlust exists, but the results are mute with respect to the causes of this motivation. In its current form of explication, the hobo syndrome is more of an empirical generalization than a theoretical proposition. Given the results reported here, future research examining the origins of the hobo syndrome seems warranted.

In particular, there are three promising psychological approaches for uncovering the roots of the hobo syndrome. First, one cannot escape the possibility that the hobo syndrome is a dispositional characteristic. Although not specifically mentioned by Ghiselli (1974), this interpretation seems to be strongly implied in his discussion of the hobo syndrome and its etiology. Recent research has linked dispositional characteristics to a number of organizationally-relevant attitudes and behaviors (Judge, 1992). Results from this study suggest that the dispositional approach may also generalize to turnover behavior. In fact, recent research has linked affective disposition to turnover behavior (Judge, 1993). Clearly, future research on this topic would profit from a consideration of personality characteristics of individuals who display consistent patterns of turnover behavior. Although past research has suggested that the effect of personality characteristics on turnover is relatively weak (Porter & Steers, 1973), consideration of patterns of turnover behavior within the context of the hobo syndrome may reveal more substantial results.

A personality construct that may be potentially useful in investigating the dispositional basis of the hobo syndrome is negative affectivity (Watson & Clark, 1984). Research suggests that negative affectivity causes employees to feel dissatisfied with their job situation (Levin & Stokes, 1989). This dissatisfaction may lead employees to migrate from one job to another seeking happiness or satisfaction which they are not disposed to experience. A vicious cycle of job hopping may result.

In addition to a purely dispositional approach to investigating the hobo syndrome, recent conceptualizations of person-environment fit (Schneider, 1987) may provide another theoretical perspective for understanding the psychology behind the hobo syndrome. For example, Diener, Larsen, and Emmons (1984) presented a choice-of-situation framework which specifies that individuals, when not constrained by strong situational demands, choose to spend their time in settings that are congruent with their personalities, goals, or values. Their study revealed that individuals with low levels of need for achievement, affiliation, and order were more likely to spend their time in novel rather than typical situations. Conversely, people who were achievement-oriented, affiliation-motivated, and had high needs for order were more likely to choose typical rather than novel situations. Thus, workers who are able to leave their job may move from one job to another as a means of defining a work environment that is consistent with their dispositional makeup or genotype (Emmons, Diener & Larsen, 1985). Job hoppers may be those individuals who have difficulty creating or maintaining a work environment that is consistent with their genotype.

Finally, a programmatic line of research on dynamic interactionism by Caspi, Elder, and Bem (1987) and Caspi and Bem (1990) may also help to disclose the psychological basis of the hobo syndrome. Caspi et al. (1987) identified individuals who were ill-tempered in late childhood and then traced the continuities and consequences of that interactional style across the subsequent 30 years of their lives. Results of their study indicated that ill-tempered children became ill-tempered adults (continuity of interaction style), that ill-temperedness negatively affected educational attainment, which in turn negatively affected occupational status, and that ill-tempered adults were more likely to lead erratic work lives characterized by the number employers served and the number of career changes into functionally unrelated lines of work. These results were observed controlling for intelligence, socioeconomic status, and educational level. As for the family domain, Caspi et al. found that individuals with a history of childhood temper tantrums were more likely to divorce by midlife. The suggestion of these findings is that the interactional style of ill-tempered individuals, which Caspi et al. termed *moving against the world*, may be another important dispositional variable to explain the existence of the hobo syndrome.

As an alternative to the dispositional or psychological interpretations offered above, structural factors also might explain the existence of the hobo syndrome. For example, Granovetter (1974, 1983) has argued that workers with a large number of prior jobs are more likely to have acquired many professional contacts and leads about alternative employment opportunities than workers who have held few previous jobs. Thus, past turnover may lead to future turnover because those who have held many jobs in the past are more able to move when they wish due to their professional contacts and "inside information" about alternative job opportunities. Our results cannot conclusively rule this explanation out, although the series of control variables such as experience and labor market alternatives, and the fact that accounting for unobserved heterogeneity did not alter the significance of the findings, should increase confidence in the psychological interpretations we have placed in the results.

There are several practical implications that follow from the results. One possible implication is that organizations wishing to control turnover might consider inquiring about the frequency of applicants' job changes in the past when making selection decisions. Presumably, those applicants who have changed jobs more frequently in the past are more likely to leave the job for which they are applying than those who have experienced fewer job exits in the past. The biodata literature provides some support for this supposition. For example, it is common to inquire about past job history when collecting biographical information (Mael, 1991). Furthermore, a significant correlation between personal history information and turnover has been reported in the literature (Cascio, 1976; Schmitt et al., 1984). While these studies did not focus on the hobo syndrome, they do suggest that using past turnover history as a predictor in human resource selection decisions may reduce turnover.

Although the results of this study would seem to have implications for personnel selection, substantial caution is warranted in considering this line of action for several reasons. First, the legal implications of using past turnover as a selection measure are unknown. Second, rejecting applicants who have left a number of jobs in the past assumes that prior turnover serves as a marker for an unmeasured negative attribute; in reality this assumption may be unfounded and may lead to unfair decisions. Finally, the undesirability of turnover, and thus past turnover, depends on the performance levels of those who quit (Bluedorn, 1982a,b; Boudreau & Berger, 1985; Dalton & Todor, 1982; Dreher, 1982; Martin, Price & Mueller, 1981; Mobley, 1982a,b; Schwab, 1991). In fact, the selection implications of this study rest on the assumption that turnover is an undesirable phenomenon, an assumption which has been seriously questioned (Abelson & Baysinger, 1984; Bluedorn, 1982a,b; Dalton & Todor, 1979, 1982; Dalton, Todor & Krackhardt, 1982; Mobley, 1982a,b; Price, 1977). Furthermore, because evidence suggests that performance and voluntary turnover are weakly related (McEvoy & Cascio, 1987), selecting on the basis of past quits may entail basing selection decisions on a predictor that is unrelated to actual performance. Thus, while using past turnover behavior as a predictor in selection decisions may reduce prospective turnover levels, the benefits of this action may be offset by legal, ethical, and performance-related difficulties.

Another possible implication of the present findings is that organizations concerned with controlling turnover may wish to focus their efforts on individuals who have demonstrated symptoms of the hobo syndrome on other jobs in the past. Since, according to Ghiselli (1974) and Veiga (1981), frequent job changers do not seem to exhibit rational behavior, one possible means of reducing turnover would be to ask employees who have changed jobs frequently in the past to examine the reasons why they would consider leaving their current jobs. If the frequent job changers are as irrational as Ghiselli and Veiga implied, attempts to help individuals examine the rationality of their actions may induce lower turnover rates. However, as with selection practices, the same legal, ethical, and performance-related caveats apply to practical interventions designed to decrease turnover assumed to result from the hobo syndrome.

Limitations and Contributions

The present study has several limitations that should be noted. The sample used in the present study was homogeneous with respect to age (the age range was 9 years). Thus, it is possible that the findings do not generalize to older workers. On the other hand, the sample was quite heterogeneous in many respects other than age, which should increase confidence in the external validity of the results. Another limitation of the present study is that the empirical findings reported here support the existence of the hobo syndrome but cannot explain why this result was observed. We cannot be confident that our interpretation of the findings is correct until some of theoretical propositions offered earlier are substantiated.

Despite these limitations, the present study has contributed to the turnover literature in several ways. First, this is the first study to substantiate Ghiselli's (1974) hypothesis of a hobo syndrome. The results may stimulate future efforts directed toward understanding why some individuals decide to terminate their employment. Much has been learned about turnover through past research. However, rarely have researchers explained more than a small minority of the variance in turnover behavior (McEvoy & Cascio, 1985). While the methodological reasons for this fact were reviewed earlier, much remains to be learned about the psychology of turnover decisions. The present study may kindle further research interest on this subject.

Also, the methodology and results of the present study reinforce the usefulness of event history analysis for turnover research. The importance of using event history analysis in turnover research has been emphasized by a number of researchers (Gerhart, 1990; Morita et al., 1989; Peters & Sheridan, 1988). However, very little research has appeared using this methodology. Furthermore, the analysis of unobserved heterogeneity is a powerful technique, yet has not been used in research in this and related areas.

In sum, the results of the present study confirmed Ghiselli's (1974) hypothesis of a "hobo syndrome." The results possess implications for practice and for future research. The research methodologies used in the present study, particularly the methods used to account for unobserved heterogeneity, also may be useful for researchers investigating turnover behavior. Hopefully, future research will continue in this direction by providing a better understanding of dispositional factors that explain why the "hobo syndrome" apparently exists.

Acknowledgement: The authors appreciate the comments of David Strang and two anonymous reviewers on earlier versions of this article.

Appendix
Computations of Survivor and Hazard Functions

The Cox survival regression takes the following form:

$$h(t) = e^{h}o^{(t)},$$

where $h_o(t)$ is the base line hazard rate at time t for a covariate vector **o**.

If one or more covariates are included in the regression, with duration data, a regression like model derived by Cox (1972) can be estimated as follows:

$$h[t; \mathbf{z}(t)] = h_o(t)\, e^{\beta' \mathbf{z}},$$

where $\mathbf{z}$ is a vector of covariates. Log transforming the hazard function to let it be a linear function of the covariates, the following is obtained:

$$\log h[t; \mathbf{z}(t)] = \log[h_o(t)] \beta' \mathbf{z}(t).$$

For the Weibull model, the hazard function is specified as follows:

$$h(t) = \lambda p (\lambda t)^{p-1},$$

where p is the transformation of $1/\sigma$ and represents the shape parameter of the distribution, and λ is defined as the instantaneous rate of turnover at $T=t$ conditional upon survival to time t. Being cast in terms of the density of the spell durations, $f(t)$, the Weibull model takes the functional form:

$$\log T = \alpha + \beta^{*\prime} \mathbf{z} + \sigma W,$$

where T denotes the time interval between job changes, $\alpha = -\log\lambda$, $\sigma = p^{-1}$, $\beta^* = -\sigma\beta$, $\mathbf{z}$ is a vector of covariates, and W has a probability density function that is an extreme value distribution (Kalbfleisch & Prentice, 1980).

Notes

1. It should be noted that the NLSY only measured job satisfaction once each year rather than at every job change; therefore it could not be included in the event history analyses. In order to determine if excluding job satisfaction would bias the estimated effect of past turnover on future turnover, a logistic regression model was estimated by regressing whether the respondent left a job in 1988 on the number of past turnovers from 1979-1987 and the control variables (including job satisfaction). The logistic regression results suggested that the model provided a good fit to the data, and indicated strong support for the hobo syndrome hypothesis. Specifically, past turnover was a strong (B=+.214, indicating that a 1 standard deviation increase in the number of past quits resulted in a 28% increase in the probability of quitting the present job) and significant ($p < .01$) predictor of future turnover, controlling for the other variables including job satisfaction. Given that the logistic regression results suggested that past turnover was a significant predictor of future turnover even when considering job satisfaction, the omission of job satisfaction from the event history analyses was not thought to jeopardize the validity of the results.

References

Abelson, M.A. & Baysinger, B.D. (1984). Optimal and dysfunctional turnover: Toward an organizational level model. *Academy of Management Review, 9*: 331-341.

Allison, P.D. (1984). *Event history analysis: Regression for longitudinal event data.* Beverly Hills, CA: Sage.

Avery, R.B. & Hotz, V.J. (1984). Statistical models for analyzing absentee behavior. Pp. 158-193 in P. S. Goodman & R. S. Atkin (Eds.), *Absenteeism: New approaches to understanding, measuring, and managing employee absence.* San Francisco: Jossey-Bass.

Blau, G.J. & Boal, K.B. (1978). Conceptualizing how job involvement and organizational commitment affect turnover and absenteeism. *Academy of Management Review, 12*: 288-300.

Bluedorn, A.C. (1982a). Managing turnover strategically. *Business Horizons, 25*: 6-12.

———. (1982b). The theories of turnover: Causes, effects, and meaning. Pp. 75-128 in S. Bacharach (Ed.), *Research in the sociology of organizations,* Vol. 1. Greenwich, CT: JAI Press.

Blumen, I., Kogan, M. & McCarthy, P. (1955). *The industrial mobility of labor as a probability process.* Ithaca, NY: New York State School of Industrial and Labor Relations.

Boudreau, J.W. & Berger, C.J. (1985). Decision-theoretic utility analysis applied to external employee movement. *Journal of Applied Psychology, 70*: 581-612.

Breaugh, J.A. (1981). Predicting absenteeism from prior absenteeism and work attitudes. *Journal of Applied Psychology, 66*: 555-560.

Carsten, J.M. & 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.

Cascio, W.F. (1976). Turnover, biographical data, and fair employment practice. *Journal of Applied Psychology, 61*: 576-580.

Caspi, A. & Bem, D.J. (1990). Personality continuity and change across the life course. Pp. 549-575 in L.A. Pervin (Ed.), *Handbook of personality: Theory and research*. New York: Guilford Press.

Caspi, A., Elder, G.H. & Bem, D.J. (1987). Moving against the world: Life-course patterns of explosive children. *Developmental Psychology, 23*: 308-313.

Clegg, C.W. (1983). Psychology of employee lateness, absence, and turnover: A methodological critique and an empirical study. *Journal of Applied Psychology, 68*: 88-101.

Cox, D.R. (1972). Regression models and life tables. *Journal of the Royal Statistical Society, 34*: 187-220.

Cutler, S.J. & Ederer, F. (1958). Maximum utilization of the life table in analyzing survival. *Journal of Chronic Diseases, 4*: 699-712.

Dalton, D.R. & Todor, W.D. (1979). Turnover turned over: An expanded and positive perspective. *Academy of Management Review, 4*: 225-235.

________. (1982). Turnover: A lucrative hard dollar phenomenon. *Academy of Management Review, 7*: 212-218.

Dalton, D.R., Todor, W.D. & Krackhardt, D.M. (1982). Turnover overstated: The functional taxonomy. *Academy of Management Review, 7*: 117-123.

Darlington, R.B. (1990). *Regression and linear models*. New York: McGraw-Hill.

Diener, E., Larsen, R.J. & Emmons, R.A. (1984). Person x Situation interactions: Choice of situations and congruence with response models. *Journal of Personality and Social Psychology, 47*: 580-592.

Dreher, G.F. (1982). The role of performance in the turnover process. *Academy of Management Journal, 25*: 137-147.

Emmons, R.A., Diener, E., Larsen, R.J. (1985). Choice and avoidance of everyday situations and affect congruence: Two models of reciprocal interactionism. *Journal of Personality and Social Psychology, 51*: 815-826.

Fichman, M. (1989). Attendance makes the heart grow fonder: A hazard rate approach to modeling attendance. *Journal of Applied Psychology, 74*: 325-335.

Garrison, K.R. & Muchinsky, P.M. (1977). Evaluating the concept of absentee-proneness with two measures of absence. *Personnel Psychology, 30*: 389-393.

Gerhart, B. (1990). *Voluntary turnover, job performance, salary growth, and labor market conditions*. Working paper #90-12, Center for Advanced Human Resource Studies, Cornell University.

Ghiselli, E.E. (1974). Some perspectives for industrial psychology. *American Psychologist*, (February): 80-87.

Granovetter, M. (1974). *Getting a job: A study of contacts and careers*. Cambridge, MA: Harvard University Press.

________. (1983). The strength of weak ties: A network theory revisited. *Sociological Theory, 1*: 201-233.

________. (1986). Labor mobility, internal markets, and job matching: A comparison of the sociological and economic approaches. Pp. 3-39 in R. V. Robinson (Ed.), *Research in social stratification and mobility*, Vol. 5. Greenwich, CT: JAI Press.

Harrison, D.A. & Hulin, C.L. (1989). Investigations of absenteeism: Using event history models to study the absence-taking process. *Journal of Applied Psychology, 74*: 300-316.

Heckman, J.J. & Borjas, G.J. (1980). Does unemployment cause future unemployment? Definitions, questions, and answers from a continuous time model of heterogeneity and state dependence. *Economica, 47*: 247-283.

Heckman, J. & Singer, B. (1984). A method for minimizing the impact of distributional assumptions in econometric models for duration data. *Econometrica, 52*: 271-320.

Hulin, C.L. (1991). Adaptation, persistence, and commitment in organizations. Pp. 445-505 in M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology*, Vol. 2, 2nd ed. Palo Alto, CA: Consulting Psychologist Press.

Ivancevich, J.M. (1985). Predicting absenteeism from prior absenteeism and work attitudes. *Academy of Management Journal, 28*: 219-227.

James, L.R. (1991). Testing hypotheses in the context of the unmeasured variables problem. *Human Resource Management Review, 1*: 273-291.

Judge, T.A. (1992). The dispositional perspective in human resources research. Pp. 31-72 in G.R. Ferris & K.M. Rowland (Eds.), *Research in personnel and human resources management*, Vol. 10. Greenwich, CT: JAI Press.

———. (1993). Does affective disposition moderate the relationship between job satisfaction and voluntary turnover? *Journal of Applied Psychology, 78*: 395-401.

Judge, T.A. & Locke, E.A. (1993). Effects of dysfunctional thought processes on subjective well-being and job satisfaction. *Journal of Applied Psychology, 78*: 475-490.

Kalbfleisch, J.D. & Prentice, R.L. (1980). *The statistical analysis of failure time data.* New York: Wiley.

Keller, R.T. (1983). Predicting absenteeism from prior absenteeism, attitudinal factors, and nonattitudinal factors. *Journal of Applied Psychology, 68*: 536-540.

Kiefer, N. (1988). Economic duration data and hazard functions. *Journal of Economic Literature, 26*: 649-679.

Levin, I. & Stokes, J.P. (1989). Disposition approach to job satisfaction: Role of negative affectivity. *Journal of Applied Psychology, 74*: 752-758.

Mael, F.A. (1991). A conceptual rationale for the domain and attributes of biodata items. *Personnel Psychology, 44*: 763-792.

Martin, T.W., Price, J.L. & Mueller, C.W. (1981). Job performance and turnover. *Journal of Applied Psychology, 66*: 57-75.

McEvoy, G.M. & Cascio, W.F. (1985). Strategies for reducing turnover: A meta-analysis. *Journal of Applied Psychology, 70*: 342-353.

———. (1987). Do good or poor performers leave? A meta-analysis of the relationship between performance and turnover. *Academy of Management Journal, 30*: 744-762.

Mendenhall, W., Reinmuth, J.E., Beaver, R. & Duhan, D. (1986). *Statistics for management and economics*, 5th ed. New York: Duxbury Press.

Mobley, W.H. (1982a). *Employee turnover: Causes, consequences, and control.* Reading, MA: Addison-Wesley.

———. (1982b). Some unanswered questions in turnover and withdrawal research. *Academy of Management Review, 7*: 111-116.

Morgan, L.G. & Herman, J.B. (1976). Perceived consequences of absenteeism. *Journal of Applied Psychology, 61*: 738-742.

Morita, J.G., Lee, T.H. & Mowday, R.T. (1989). Introducing survival analysis to organizational researchers: A selected application to turnover research. *Journal of Applied Psychology, 74*: 280-292.

Muchinsky, P.M. & Tuttle, M.L. (1979). Employee turnover: An empirical and methodological assessment. *Journal of Vocational Behavior, 14*: 43-77.

Owens, W.A. (1976). Background data. Pp. 609-644 in M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology.* New York: Rand McNally.

Parsons, D.O. (1977). Models of labor market turnover: A theoretical and empirical survey. In R. G. Ehrenberg (Ed.), *Research in labor economics*, Vol. 1. Greenwich, CT: JAI Press.

Peters, L.H. & Sheridan, J.E. (1988). Turnover research methodology: A critique of traditional designs and a suggested survival model alternative. Pp. 231-262 in G.R. Ferris & K.M. Rowland (Eds.), *Research in personnel and human resources management*, Vol. 6. Greenwich, CT: JAI Press.

Porter, L.W. & Steers, R.M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin, 80*: 151-176.

Price, J.L. (1977). *The study of turnover.* Ames, IA: Iowa State University Press.

Price, J.L. & Mueller, C.W. (1986). *Absenteeism and turnover of hospital employees.* Greenwich, CT: JAI Press.

Schmitt, N., Gooding, R.Z., Noe, R.A. & Kirsch, M. (1984). Meta-analysis of validity studies between 1964 and 1982 and the investigation of study characteristics. *Personnel Psychology, 37*: 407-422.

Schneider, B. (1987). The people make the place. *Personnel Psychology, 40*: 437-453.

Schwab, D.P. (1991). Contextual variables in employee performance-turnover relationships. *Academy of Management Journal, 34*: 966-975.

Singer, J.D. & Willet, J.B. (1991). Modeling the days of our lives: Using survival analysis when designing and analyzing longitudinal studies of duration and the timing of events. *Psychological Bulletin, 110*: 268-290.

Tuma, N.B. & Hannan, M.T. (1984). *Social dynamics: Models and methods.* New York: Academic Press.

Veiga, J.F. (1981). Do managers on the move get anywhere? *Harvard Business Review*, (March-April): 20-38.

Watson, D. & Clark, L.A. (1984). Negative affectivity: The disposition to experience aversive psychological states. *Psychological Bulletin, 96*: 465-490.

Yamaguchi, K. (1991). *Event history analysis.* Beverly Hills, CA: Sage.