Predicting Counterproductive Performance Among Temporary Workers: A Note*

RICHARD A. POSTHUMA, MICHAEL A. CAMPION and AMBER L. VARGAS

Using prehire biographic and work history data, temporary help agency workers ($N = 201$) were classified as marginal or satisfactory. Marginal temps had characteristics suggesting poor work histories and willingness to accept any kind of employment. In prior jobs, they were paid less and more likely to have been laid off. They had also been temps for longer periods of time, and were more willing to work weekends and nights. The classification of temps as marginal versus satisfactory was validated using posthire data, showing that marginal temps had lower performance evaluations, and exhibited more counterproductive behaviors (e.g., late, absent, unsafe, or careless).

WORKERS EMPLOYED BY TEMPORARY HELP AGENCIES (TEMPS) ARE AN INCREASINGLY IMPORTANT PART OF THE U.S. LABOR FORCE. Almost no research has identified the factors that predict productive and counterproductive performance by temporary workers at host employer worksites. This study illustrates that temp workers are not a homogeneous commodity. Rather, they can be differentiated into identifiable subgroups—some with chronically poor work histories that predict a higher frequency of poor performance and more counterproductive behaviors. This insight adds to our understanding of temporary workers, an understudied group, and also has practical implications for employers who use temps.

This study uses prehire demographic and work history data to identify a profile of two types of temporary workers that were expected to have different levels of performance after they were hired: marginal and satisfactory temps. Marginal temps are characterized by work history that shows they were laid off from their last job (Bishop, 1990), are less likely to have quit their last job, and have longer tenure as temps. Further, extending from prior

* The authors' affiliations are, respectively, College of Business Administration, University of Texas at El Paso, El Paso, Texas, Purdue University, Krannert Graduate School of Management, West Lafayette, Indiana, and RM Personnel, El Paso, Texas. E-mail: *rposthuma@utep.edu*, *campionm@mgmt.purdue.edu*, and *amberm@rmpersonnel.com*.

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research that suggests many people accept temp work involuntarily (e.g., Bernasek & Kinnear, 1999), the marginal temps are willing to work whatever days or shifts are available (Morris & Vekker, 2001; Polivka, 1996).

The goal of this research is to identify biographic profiles of meaningful patterns of work histories to identify subgroups of temporary workers, and then validate the classification against subsequent work performance. Aside from providing insight into the potential problems with temporary employees, this research has the practical value of identifying valid predictors of counterproductive behavior that can improve the selection processes of temporary employment agencies.

Data

Data from prehire were compared to posthire measures of job performance and objective records of counterproductive employee behaviors. The data were acquired from the records of a temporary help agency located in the southwestern United States. All data pertained to temporary workers (N = 201) in clerical occupations (119 women and 82 men). Data were gleaned from employment application forms, the host employers' evaluations of the temporary workers' performance, and the host employers' discipline records.

The data identified reason for leaving the last job (laid off or quit); months of tenure (i.e., the time between hire and performance evaluation), sex, and years of postsecondary education. Answers to the question, "Are you willing to work: Saturdays, Sundays, Days, Evenings, Nights" were coded as 1 for each item checked, and 0 for those not checked. A composite scale, availability, was the total of the number of items checked (internal consistency $\alpha = 0.78$). Data on whether the applicants applied for a regular job (as opposed to a temporary job) were also recorded. Answers to the question, "Expected salary minimum acceptable" were coded as 1 (salary open) if the applicant indicated "open" or "negotiable," or left this item blank, otherwise this variable was scored 0. Applicants' last hourly wage was measured in dollars.

The mean performance evaluation (trait/attribute type ratings) was computed from the most recent evaluations conducted by supervisors at the host employer work site. The performance evaluation form had 11 items (e.g., quality of work, quantity of work, and overall performance) coded on a scale ranging from unsatisfactory = 0 to clearly outstanding = 4. For the entire sample, the M = 2.88, SD = 0.53, the internal consistency reliability α was 0.89.

Host employers' records of disciplinary warnings issued to workers were coded as 1 for each type of counterproductive behavior (late, absent, unsafe,

insubordination, and carelessness), and 0 otherwise. These were cases in which a supervisor issued a warning to the worker and recorded it in the employee's personnel file. A separate variable, total disciplines, is the sum of all five categories of violations.

Analysis and Results

The upper part of Table 1 reports the results of a cluster analysis. Individuals were clustered using expected biographical identifiers of marginal versus satisfactory temp workers. These data identified the demographic and work history factors that differentiated these two groups of temporary workers. The bottom of Table 1 shows the mean differences between the criterion variables after individuals were placed into clusters. There were significant differences between the marginal temps who had lower job performance and more disciplines than the satisfactory temps. The last two columns show effect sizes: Cohen's d and correlations ($r_{Y\lambda}$).

TABLE 1

MARGINAL AND SATISFACTORY WORKER BACKGROUND PROFILES, AND THEIR PERFORMANCE EVALUATIONS AND DISCIPLINE FREQUENCIES

	Marginal workers		Satisfactory workers		Effect sizes		
	Mean	SD	Mean	SD	t	d	r
Biographic clustering variables							
Laid off from last job (1 = yes, 0 = no)	0.34	0.48	0.14	0.35	3.44**	0.48	0.23
Quit last job (1 = yes, 0 = no)	0.47	0.50	0.64	0.48	−2.44*	−0.35	−0.17
Tenure as temporary (months)	30.9	30.8	16.4	23.6	3.74**	0.53	0.26
Sex (1 = male, 0 = female)	0.62	0.49	0.58	0.50	0.53	0.08	0.04
Education (postsecondary years)	2.95	1.46	2.68	1.35	0.19	0.19	0.10
Availability	1.64	1.16	1.18	1.23	2.62**	0.38	0.19
Applied for regular job (1 = yes, 0 = no)	0.32	0.47	0.35	0.48	−0.52	−0.06	−0.03
Open on salary (1 = yes, 0 = no)	0.48	0.50	0.62	0.49	−2.41*	−0.28	−0.14
Last job hourly wage $	6.66	2.40	9.01	5.67	−3.18**	−0.54	−0.26
Criterion variables							
Performance evaluation	2.39	0.40	3.16	0.37	−13.8**	−1.99	−0.71
Number of disciplines received							
Late	0.22	0.69	0.00	0.00	3.59**	0.45	0.21
Absent	0.19	0.54	0.01	0.09	3.75**	0.46	0.22
Unsafe	0.12	0.50	0.01	0.09	2.52*	0.31	0.15
Insubordination	0.11	0.71	0.02	0.20	1.26	0.17	0.09
Carelessness	0.59	1.20	0.00	0.00	5.65**	0.70	0.33
Total disciplines	1.23	2.06	0.04	0.09	7.11**	0.82	0.38

N = 201 (marginal workers N = 74, satisfactory workers N = 127); *$p < 0.05$, **$p < 0.01$.

The clustering method was K-means clustering with between-groups linkage. The interval measure was squared Euclidian distance (Everitt, 1980). Two clusters were based on the a priori conceptualization of biographic factors that were likely to differentiate marginal from satisfactory temps. The result was 74 individuals in the marginal temps cluster and 127 in the satisfactory temps cluster. The stability and coherence of this cluster solution was examined using recommended cluster analysis procedures (Everitt, 1980). Also, four randomly selected subsamples of the data showed essentially the same cluster assignments, so subsample characteristics did not unduly influence the cluster results. The viability of this cluster analysis was also supported by significant mean differences between clustering variables and a statistically significant discriminant function analysis that tested the prediction of membership in the marginal versus satisfactory groups (Wilks' lambda = 0.937, $X^2 = 12.698$, $p < 0.05$).

The upper part of Table 1 shows the mean differences between the clustering variables. There were significant mean differences between the marginal and satisfactory temps on most biographic predictors. Marginal temps were more likely to have been laid off, and less likely to have quit their last job. They worked more months as a temp, were more available for any type of work, were less open on salary. In addition, on their last job, marginal temps had a mean hourly wage of $6.66, which was significantly lower than the mean $9.01 per hour earned by the satisfactory temps. Thus, the cluster analysis shows that marginal temps can be differentiated from satisfactory temps using background biographic work history data, and the clusters showed a meaningful pattern of poorer work history.

Next, the classification of temps as marginal versus satisfactory was validated using subsequent levels of job performance and counterproductive behaviors. The job performance and discipline data were not used to create the cluster groups. Nevertheless, as can be seen on the bottom of Table 1, marginal temps had significantly lower levels of job performance and higher numbers of disciplines than the satisfactory temps. The data showed that except for insubordination, marginal temps had higher frequencies of all types of disciplines than satisfactory temps (e.g., lateness, absences, unsafe acts, and carelessness).

In summary, the results showed that biographic and work history data could be used to make a meaningful distinction between two groups of temporary workers: marginal and satisfactory. Then, using two independent sources of criterion data, the usefulness of this categorization was confirmed by showing that marginal temps had lower job performance, and exhibited more counterproductive behaviors. Future research should examine whether similar biographic predictors can differentiate marginal

and satisfactory workers employed in regular jobs. If so, it can assist organizations in predicting both positive and negative aspects of employee performance.

Temporary help agencies find themselves in a dilemma. They need applicants who are willing to work on weekends or off-shifts in order to make successful placements. Yet the data in this study suggest that using employee willingness to work these hours as a selection criterion could result in assigning the least productive workers to host employers. Thus, in addition to the willingness to work nights or weekends, temporary agencies should also use other criteria when selecting workers to refer to host employers.

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