

Predicting Forester & Forestry Technician Performance:

2015



THE SCIENCE OF PERSONALITY

Introduction

Hogan recently collaborated with a state agency to identify characteristics associated with successful performance in Forester and Forestry Technician jobs. The goal was to develop a valid assessment-based solution to select candidates for both jobs. We sought to enhance the current process by adding the Hogan Personality Inventory (HPI; a measure of day-to-day behavioral characteristics), Hogan Development Survey (HDS; a measure of behavioral tendencies that may hinder job performance), and Motives, Values, Preferences Inventory (MVPI; a measure of key motives and drivers).

The validation process consists of a number of steps. The research study began with a personality-based job analysis to collect data from Foresters and Forestry Technicians. Hogan collected information from focus groups, job descriptions, and Hogan's Job Evaluation Tool (JET). Next, we aligned this information with predictor scales on the HPI, HDS, and MVPI. We compared the job analysis results for Foresters and Forestry Technicians and found that characteristics related to success were very similar across the jobs. Therefore, we recommended that the state agency use one assessment profile to screen candidates for both positions. Next, Hogan used validity generalization strategies, including job family meta-analysis and synthetic/job component validity, to identify the HPI- and HDS-based predictors of successful performance.

Hogan also conducted a local validation with the Forester group. First, 135 Foresters completed the HPI, HDS, and MVPI. We then created an online performance rating form based on job analysis results and expert judgment. This form included six items that assessed overall performance and 19 that assessed specific competencies and job requirements. Supervisors provided performance ratings for 115 Foresters that completed the assessments. Finally, we examined relationships between performance ratings and assessment results to create a selection profile comprised of individual characteristics most predictive of performance.

Results

Hogan Personality Inventory Results

Individuals with the following characteristics tended to receive higher performance ratings:

- Stress tolerant and resilient
- Driven and results oriented
- Disciplined and detail-oriented
- Practical, level-headed, and process-focused

Hogan Development Survey Results

Lower performers exhibited the following stress-induced behaviors:

- Cynical, negative, distrustful, and fault-finding
- Overly careful and fearful of failure
- Risk-taking, limit-testing, and untrustworthy
- Eccentric, impractical, and lacking focus

Motives, Values, Preferences Inventory Results

Higher performers indicated the following key values and drivers were most important for success:

- Networking, relationships, teamwork, and belonging
- Authority, top-down influence, and impact

Based on the findings, Hogan developed a profile to select candidates into the Forester and Forestry Technician roles who were more likely to be high performers. This profile will identify candidates who are able to tolerate some stress at work and persevere through challenges, willing to take decisive action to move work forward to achieve goals, motivated to be of service to and maintain positive connections with others, are structured and focused, and willing to adapt to changes and work in ambiguous situations while managing risk appropriately.

Profile Performance

Profile results were significantly related to a variety of key performance indicators (see Table 1). Furthermore, results indicated that current Foresters identified as high fits:

- Achieved higher PRF Scores across all performance metrics
- Were 4 times more likely to be rated as employees supervisors would make a significant effort to keep compared to those not meeting the High Fit profile
- Received higher “Potential for Advancement” ratings from their supervisors
- Received higher “Dependability” and “Safety” ratings from their supervisors
- Were 3 times more likely to be rated as a individuals who actively share information with and educate others compared to those not meeting the High Fit profile

Also, 71% of Foresters identified as being highly Dependable were categorized as High fits and 77% of Foresters identified as having a High Potential for Advancement were categorized as High fit. These results indicate that supervisors were twice as likely to rate High Fit Foresters as highly Dependable and having a High Potential for Advancement compared to Low Fit Foresters. Overall, results suggest that using this profile, the client could select high performing Foresters and Forestry Technicians.

Table 1. Correlations between Hogan Profile and Key Performance Indicators

	Corrected
Average PRF Score	.31*
Thinking of Leaving Score	.41**
Potential for Advancement	.44**
Dependability	.37**
Safety Score	.31*
Educating Others core	.39**

Note. N = 48-111; * p < .05; ** p < .01; Corrected = correction for unreliability in the criterion measure.

