

Can Psychological Profiling Improve Firefighter Selection Procedures?

AIFP would like to extend a special note of appreciation to Ms Robyn Pearce of the Tasmania Fire Service for her assistance in preparing this research report.

Overview

This study demonstrated that a group of firefighters who had been selected using the AIFP Profiling System took less sick leave, had fewer Workers Compensation claims; took less days off per claim; and had fewer resignations than a similar size group who had been hired without profiling during their first six years of work experience.

Background

Since November 1999 the Tasmania Fire Service has been using the AIFP Profiling System for screening applicants for the role of firefighter. The Tasmania Fire Service, with the assistance of AIFP, undertook a research study to investigate the effectiveness of the AIFP Profiling System. This summary details the results of that study.

Prior Research

The research literature on performance of firefighters is virtually nonexistent. The available studies describe data for applicants who had been hired, but had never worked as a firefighter (Matarazzo et al.). Harvey et al. compared MMPI scores for 72 firefighters with job performance. They concluded that the MMPI is not strongly related to job performance. Other studies (Johnson, 1983; Ammett and Kinbro, 1985) provide descriptions of normative data, with no effort to relate these to performance on-the-job. Finally, Barrett et al., 1999 reviewed 73 unpublished studies of firefighter performance. They conclude that tests of intelligence and mechanical ability predict good job performance.

Methodology

The research compares two groups of people who have been hired as firefighters in the Tasmania Fire Service. The first group had been hired without using the AIFP Profiling System. The second group had all been selected with the benefit of this tool.

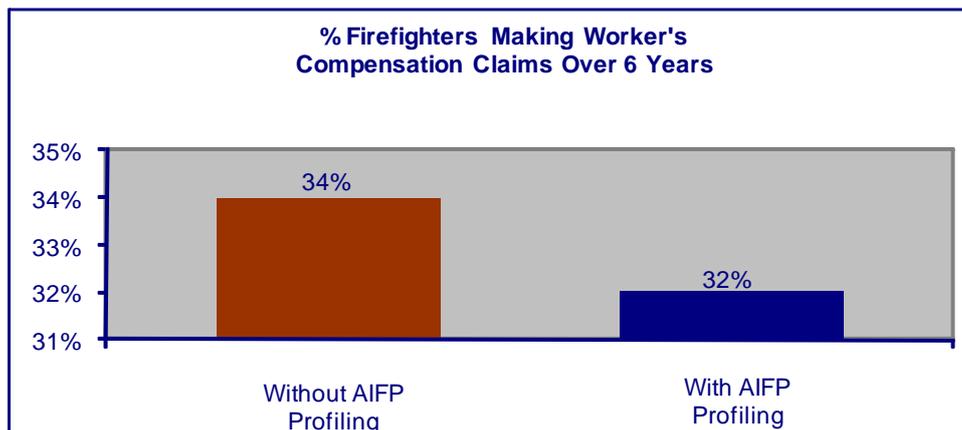
The pre-group contained 39 people and the post (AIFP) group contained 34. Where appropriate, adjustments in sample size have been made for this difference. With such small numbers, it would be extremely surprising to find any significant differences in performance between the two groups.

For each group, objective data was collected about their first six years of work experience.

Study Results

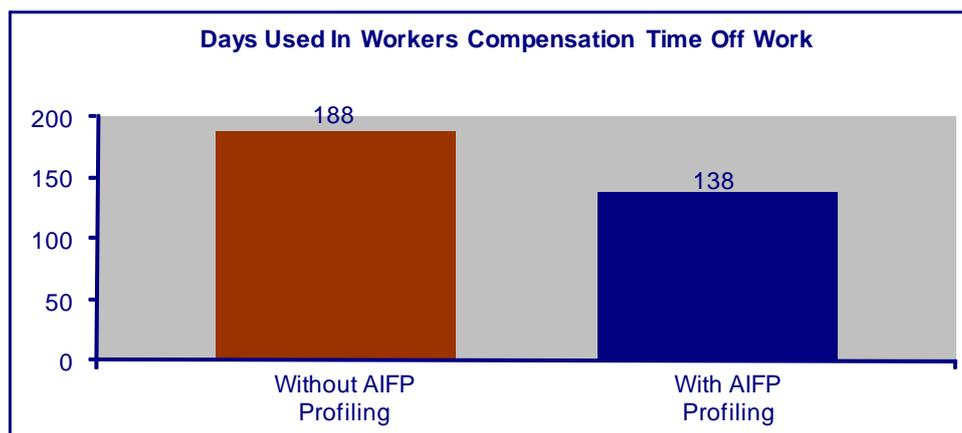
Worker's Compensation Claims

At the end of six years of service 34% of the pre-group (12 out of 35 people) made a Worker's Compensation claim. In comparison, 11 out of 34 people in the AIFP group made a Worker's Compensation Claim (32%). This is a difference of 2%.



This relatively small difference becomes far more significant when the actual number of days taken as a group is considered.

In the first six years of employment the pre-group took an average of 15.66 Worker's Compensation days per person. The AIFP group took 12.54 days per person.



The AIFP group took 50 fewer days off work due to a Worker's Compensation claim. This represents a 27% decline in time away from work for a physical injury.

Resignations

Firefighting is one of the most highly sought after and competitive positions within the Public Safety community. Firefighters are largely welcomed by the communities they serve and receive more positive feedback than do other Public Safety Officers. The work schedule is particularly attractive, despite the inherent danger of the job.

Historically, the rate of people resigning from a firefighter position has been much lower than in other Public Safety professions.

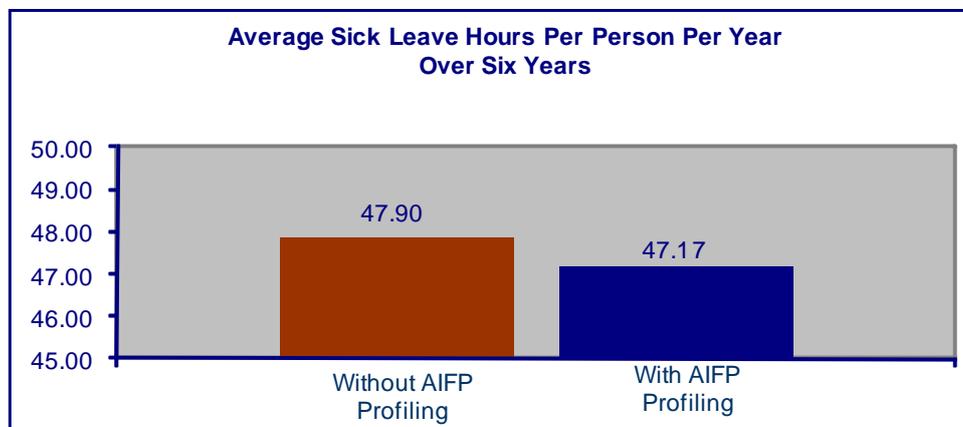
Three people in the pre AIFP group quit the job, and one died. However, one person in the pre-group resigned because they were unable to obtain the anticipated Australian permanent residency. For this reason they have been excluded from the calculations. In contrast, no one from the AIFP group resigned.



Sick Leave

In the six years of employment the pre-group took an average of 47.90 hours sick leave per year. The AIFP group took an average of 47.17 hours sick leave per year.

This equates to the AIFP group taking 0.73 less days per person per year. Based on an average 37 employees, the AIFP group saved 27 sick days per year. Over six years this represents a total of 162 sick days.



This study is limited by the small sample size. In such small groups it would be surprising to find any statistically significant differences in performance. Despite this limitation, the group of firefighters selected without the AIFP Profiling System had slightly more resignations and more sick leave; had more Workers Compensation claims and took more days off per claim.

It is anticipated that this result would have led to significant financial savings for the Fire Service.

Future studies will focus on larger samples of firefighters in Australia.

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