Hours of Reported Sleep During Random Duty Assignments for Four Type I Wildland Firefighter Crews.

S.E. Gaskill and B.C. Ruby
University of Montana
Email: steven.gaskill@mso.umt.edu

Funded by Missoula Technology Development Center, U.S. Forest Service

Overview:

During the 2001 and 2002 wildland fire seasons, four separate Hot Shot (Type I) crews participated in research carried out by the Human Performance Laboratory, University of Montana. As a part of all of the field studies evaluating fatigue and immune function, a questionnaire containing a question regarding duration and quality of sleep was asked on a daily basis each morning. The questionnaire question asked for time to sleep and time awake. Quality of sleep data are not reported here, simply the hours of reported sleep.

Results:

Figure 1 is a histogram showing the number of nights that were reported for different sleep durations rounded to the nearest hour. Note that most subjects reported 6 to 9 hours of sleep most nights with only 36 nights (13%) reported with 6 or less hours.
Data Summary:

Number of nights reported = 276
Number of subjects = 56 (47 males, 9 females)
Sleep data: Average Hours of Sleep reported = 7.02 ± 1.42

Discussion:

These data suggest that most type one crews are receiving adequate rest times to meet the 2:1 work to rest recommendations. The few reported nights with less than 6 hours did not have follow-up so these data cannot explain the reasons for the reduced hours of rest 13% of the time.