

How much is enough? Establishing threshold scores for employee safety incentive programs

Determining safety inspection thresholds for employee incentive programs on construction sites

Sparer EH and Dennerlein JT. Safety Science, January 2013.

Overview

The goal of this study was to select an approach for scoring and rewarding worker safety performance on construction sites based on leading indicators. Using data derived from safety audits performed at Harvard construction sites over a 19 month period, researchers grouped them by owner, general contractor, project, trade and subcontractor and determined median scores. They then explored different ways to establish incentive thresholds that would be seen by workers as fair, consistent and compelling, concluding that using the owner-specific approach and a threshold value of 96.3% best met the program criteria.

Key Findings

- Audit scores varied widely between different trades and subcontractors, such that any threshold established for incentives would consistently reward some and disqualify others, making it unlikely the incentives would be perceived as fair and motivate improved adoption of safe behaviors.
- Audit scores varied significantly between different types of projects, which would require establishing an individual threshold value for incentives for each project, complicating safety efforts.
- Pooling audit data for all the owner's projects enabled the research team to establish a single threshold value on the audit that would involve all workers equally in the effort with results appearing equitable in the eyes of participants.
- Applying the Harvard median audit score of 96.3% to a 17-month project at the university resulted in a reward distribution 6 out of 17 months, or 35% of the time. This threshold for monthly rewards was attainable, competitive and inclusive of all participants.

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See abstract:

<http://www.sciencedirect.com/science/article/pii/S0925753512001531>

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