



## Connections Between “Leading” and “Lagging” Indicators in Contractor Prequalification Surveys

### Testing the associations between leading and lagging indicators in a contractor safety pre-qualification database

Justin Manjourides and Jack T. Dennerlein. *American Journal of Industrial Medicine*, 2019.

#### Overview

Through a process called prequalification, general contractors evaluate potential subcontractors’ safety practices and history, with the goal of creating a safer and healthier work environment. While many assessment tools rely on lagging indicators, such as injury rates and experience modifying rates, leading indicators—such as safety programs and policies—may predict injuries and safety behavior. The leading indicator of safety management systems, for example, includes factors such as management commitment, inspection and hazard recognition, worker involvement, management accountability, evaluation plans, incident investigations, and emergency plans. A prequalification database was used to examine the relationships between leading and lagging indicators of safety and injury across trades.

#### Key Findings

- Leading indicators, including safety management systems and drug and alcohol policies, were associated with lower injury rates.
- Safety programs were not consistently related to injury outcomes, possibly because of the belief that simply complying with OSHA standards is not enough to reduce injuries or because of how need for these programs vary from company to company.
- Prequalification assessments that consider safety management systems may be useful in selecting contractors that have safe work practices and lower injury rates.
- Safety management systems should be included in prequalification tools and contractors across trades should adopt these programs.

#### For more information, contact:

Justin Manjourides: [j.manjourides@northeastern.edu](mailto:j.manjourides@northeastern.edu)

#### See abstract:

<http://bit.ly/2SaNRsL>

©2019, CPWR-The Center for Construction Research and Training. All rights reserved. CPWR is the research and training arm of NABTU. Production of this document was supported by cooperative agreement OH 009762 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.



THE CENTER FOR CONSTRUCTION  
RESEARCH AND TRAINING

[WWW.CPWR.COM](http://WWW.CPWR.COM)