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Development and Evaluation of Metrics for Contractor Pre-Qualifications (Completed – 2014-2019)

Jack Dennerlein
Northeastern University
Email: j.dennerlein@neu.edu

There is a strong need among owners and general contractors during the project planning phase of a construction site to evaluate potential subcontractors on their capabilities to provide a safer work environment. However, there are no standardized procedures for making decisions about who is best to work with, that is who is pre-qualified. A few new pre-qualification checklists examining leading indicators of safety do now exist. However, these programs lack tested validity and often do not capture safety culture. Effective programs need to include organizational measures based on how leaders and workers together create and react to their work environment, including safety culture. The goal of this project was to develop a pre-qualification assessment tool that demonstrates improvement in the health and safety of construction workers through effective systems of safety that are based on a set of values shared and disseminated throughout the worksite. To accomplish this goal, we evaluated and reviewed current pre-qualification practices and organizational theory in relation to safety culture and worksite safety performance. To test the validity of this pre-qualification assessment tool, we implemented the pre-qualification tool for all contractors on 25 construction projects in New England and then collected safety performance data for those sites for one year following implementation of the assessment tool. Safety performance data included self-reported worker injury and worksite injury reports, inspection data, and financial data. We tested the hypothesis that sites with better overall pre-qualification assessment metrics have better safety performance outcomes. The impact of this work is a publicly available, validated pre-qualification tool that adds evidence-based approaches to the health and safety of construction workers. The approach was innovative because it incorporated how organizations value health and safety, demonstrated through their organizational structure (e.g., policies and practices), and how those values create a healthy and safe environment for all workers on a construction site.

This project developed and validated a new publicly available pre-qualification assessment tool for construction projects in order to select and promote safer contractors. We expect that the new tool will capture contractors' values conveyed in their policies, programs, and practices. This enables contractors to maximize safety management systems in order to better protect the health and safety of the construction worksite.

SELECTED OUTPUTS

Resources

[Assessment of Contractor Safety \(ACES\) website](#)

Peer-Reviewed Articles

[Testing the associations between leading and lagging indicators in a contractor safety pre-qualification database](#), American Journal of Industrial Medicine, April 2019 ([Read the Key Finding](#))

[The Gap Between Tools and Best Practice: An Analysis of Safety Pre-qualification Surveys in the Construction Industry](#), New Solutions, February 2019 ([Read the Key Finding](#))

Webinar

[Assessment of Contractor Safety \(ACES\) Through Prequalification Organizational Surveys](#), September 2018 ([Download Presentation](#))

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