Advanced Work Packaging Assessment and Analysis



BACKGROUND

The term advanced work packaging (AWP), coined by the Construction Industry Institute (CII), refers to a disciplined process for project planning and execution. It was developed to address challenges such as cost and schedule overruns in the industrial construction sector. Case studies conducted on AWP report many benefits in the areas of productivity, cost, safety, and schedule. However, since there is no clear method to assess the costs and benefits of AWP implementation, a significant challenge in AWP adoption is the lack of quantitative evidence to support these reported benefits. We are developing a structured framework to assess multiple aspects of AWP implementation, which will enable practitioners to quantify both its costs and benefits.

OBJECTIVE, METHODS, AND DELIVERABLES

To help construction practitioners make informed decisions about implementing AWP on their projects, we are developing an approach to determine the effects of AWP on project performance and calculate return on investment (ROI) based on the associated costs and benefits of AWP. Working with industry partners and the CII, we will compare key performance indicator (KPI) data from projects that used AWP to data from projects that did not implement AWP. We will analyze the data to determine where and when AWP implementation is most effective and provides the greatest ROI. The more data we can collect and analyze from a variety of stakeholders, the more comprehensive will be the findings that we can share with industry.

Based on our research findings, construction practitioners will be able to better determine which projects can benefit the most from the implementation of AWP in terms of ROI. The ability to quickly make evidence-based decisions about AWP when project planning will provide practitioners with a competitive advantage by enabling them to reduce cost and schedule overruns and increase safety and productivity.