

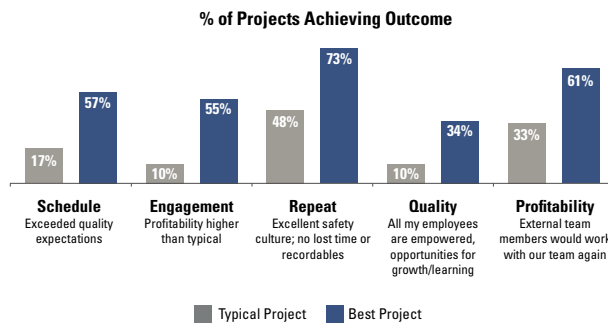
OPERATIONAL EXCELLENCE IMPROVED BY LEAN... THERE IS A BETTER WAY!

How do contractors improve quality and profitability? Contractors indicated these two factors were most valuable to them to achieve higher project satisfaction. The Lean Construction Institute recently sponsored a study conducted by Dodge Data & Analytics to explore how and why projects excel.

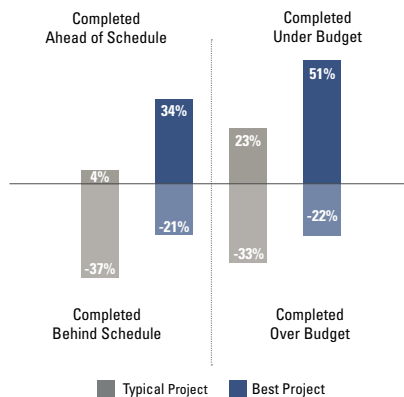


HOW DID PROJECTS PERFORM?

Dodge benchmarked "best" and "typical" projects* from 336 contractors (187 GC/CM, 108 speciality trade and 41 heavy civil) against key performance outcomes shown below. The sample represents projects using various delivery methods and contract types across the United States.



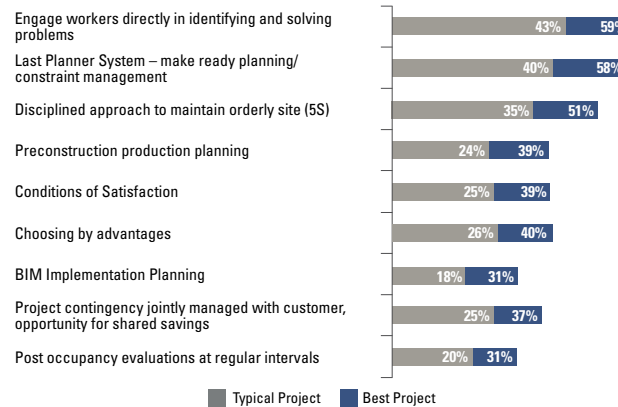
% of Projects Achieving Outcome (Performance from initial involvement of contractor)



* Each project was completed in the last 5 years with construction cost of at least \$10M

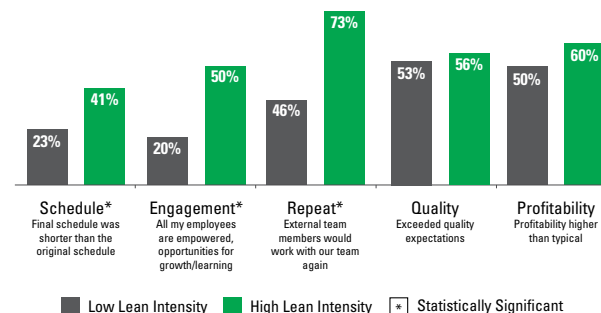
WHY DID PROJECTS EXCEL?

Dodge also inquired about application of Lean methods on each project. The research found the following with the biggest utilization gap between best and typical projects.



Of the best projects Dodge found a statistically significant correlation between high lean intensity projects and likelihood to complete ahead of schedule, and better internal and external team culture. Lean intensity refers to the extent a project used the Lean methods studied, particularly those that are recognized as most effective.

% of Best Projects Achieving Outcomes



HOW DO I START?

Follow these steps to improve your project:

- Set Targets:** Pick one or two methods that address project specific needs, challenges or risks and establish measurable goals (use [lean deployment plan](#) as reference).
- Build the Team:** Identify the individuals who will own implementing the methods and ensure they have skills to execute or provide training.
- Learn as a Team:** Learn by doing and continuously improve by evaluating decisions, actions, and feedback as a team.
- Support the Team:** Provide coaching and celebrate improvements!

WHAT DOES THIS MEAN FOR ME?

While the research focused on project outcomes the benefits extend to all individuals on the project; benefits include:

- Leveling of workload (work/ life balance)
- Increased employee engagement (productivity)
- Improved utilization (profitability)

HOW DO I LEARN MORE?

For more information about the research, find a local Lean community or to advance your own Lean journey, please visit:

Lean Construction Institute

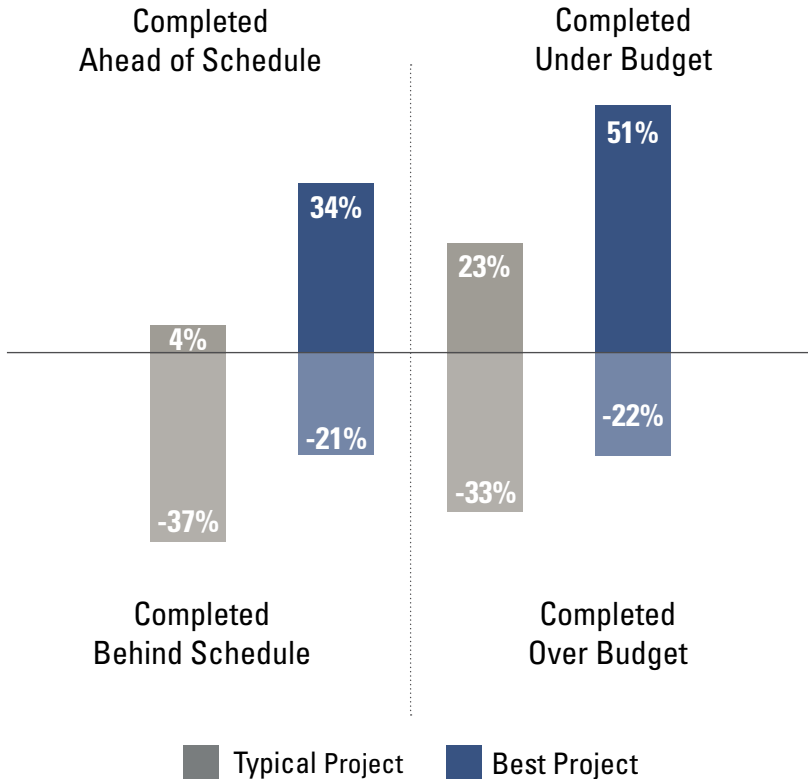
www.leanconstruction.org

AGC Lean Construction Education Program

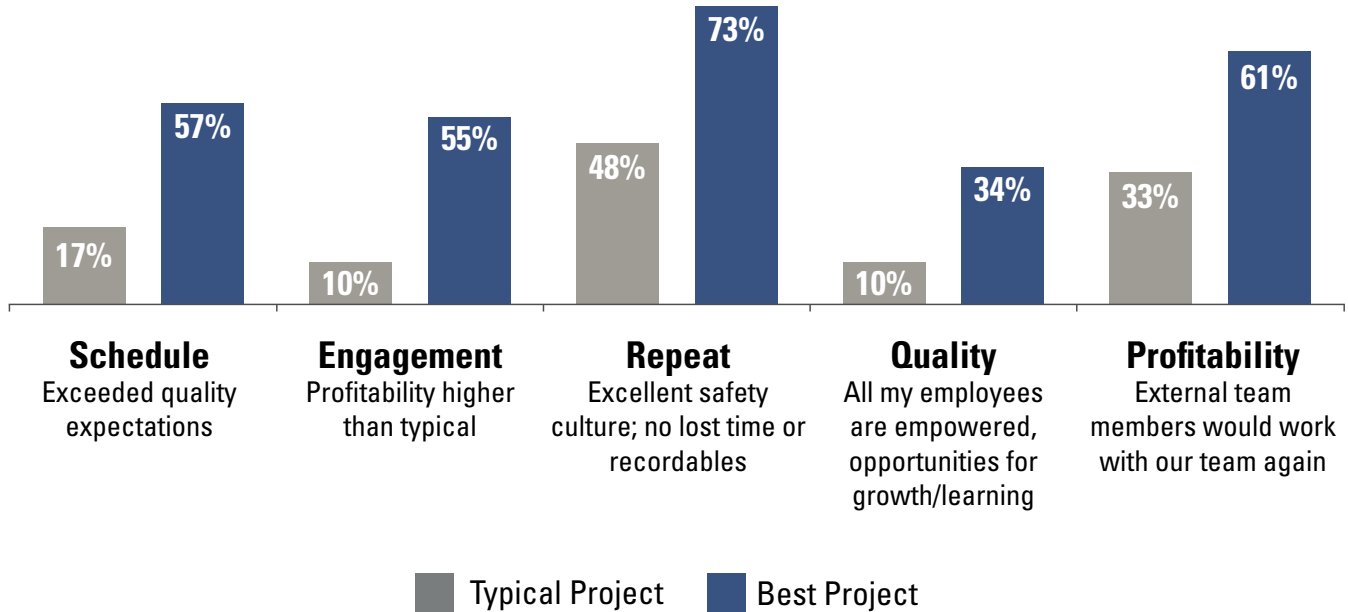
www.agc.org/learn/education-training/lean-construction-education-program



% of Projects Achieving Outcome **(Performance from initial involvement of contractor)**



% of Projects Achieving Outcome



Engage workers directly in identifying and solving problems

Last Planner System – make ready planning/
constraint management

Disciplined approach to maintain orderly site (5S)

Preconstruction production planning

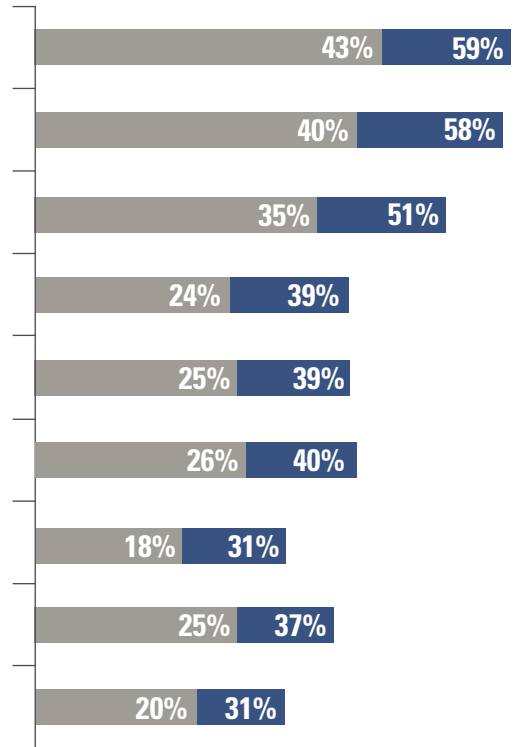
Conditions of Satisfaction

Choosing by advantages

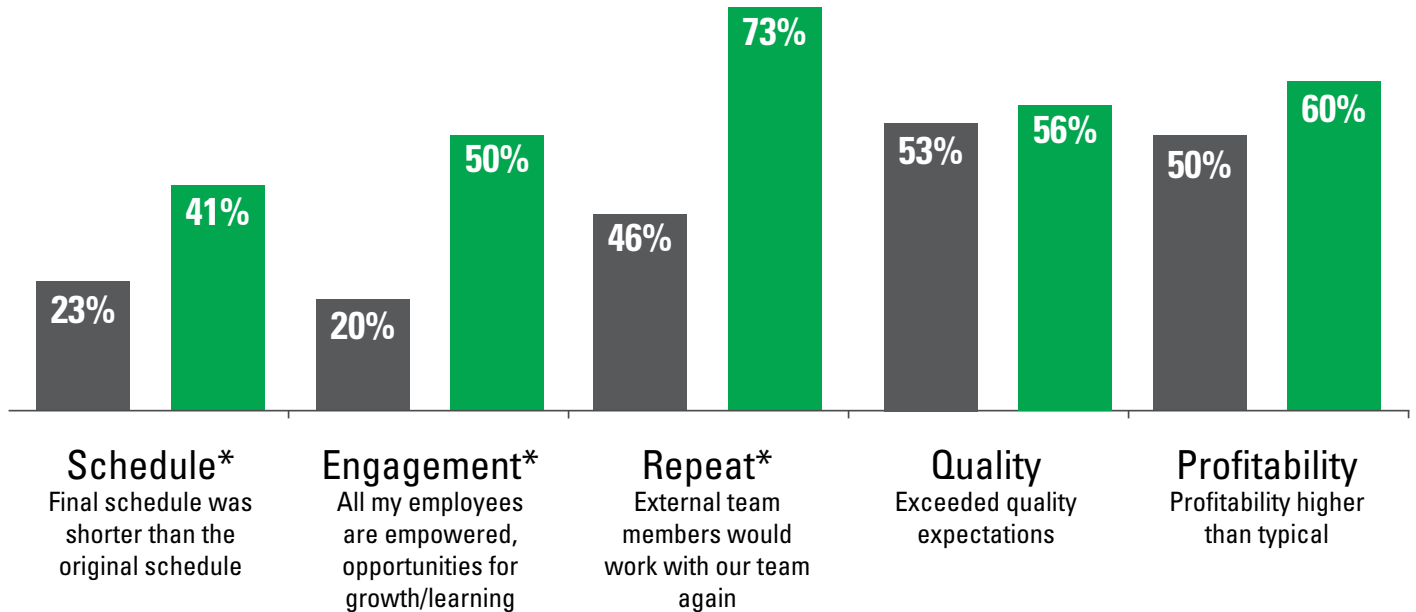
BIM Implementation Planning

Project contingency jointly managed with customer,
opportunity for shared savings

Post occupancy evaluations at regular intervals



% of Best Projects Achieving Outcomes



Low Lean Intensity

High Lean Intensity

* Statistically Significant

