

Job Order Contracting Performance Research

Industry Study Summary

The Performance Based Studies Research Group from Arizona State University's Del E. Webb School of Construction, in partnership with Center for Job Order Contracting Excellence (CJE), conducted a study to analyze the performance and value of the Job Order Contracting (JOC) construction delivery method. The result was the 2016 Job Order Contracting Performance study which measured the performance, satisfaction of results and economic impact of JOC. Seventeen stakeholders championed the effort, which surveyed 47 owner entities and 13 contractors, who represent \$5 billion in construction projects.

The State of the Construction Industry

Those in the construction industry seek faster, better methods of completing projects efficiently, while staying on deadline and on budget. This is not an easy task, as research has found that only 2.5% of all projects are delivered on time and within the planned cost¹. These inefficiencies are piling up, costing up to \$36 billion per year in lost time and fiscal overages². Researchers at Arizona State University spent 24 years and over 1800 tests working to identify the source of these issues³, and found that a primary cause in low construction performance lies in the traditional Design-Bid-Build construction method. This study focused on the results of JOC, with overwhelmingly positive results in project satisfaction,

timeliness and cost savings, as well as flexibility, transparency and ease of use.

Overall Satisfaction

The study found that 96% of JOC projects were rated satisfactory by respondents, while almost all (99%) owner participants said they would recommend JOC to other owners. These high satisfaction marks derive from the time and cost saving benefits found with the JOC process, as well as greater transparency, flexibility and efficiency compared to other methods. Owners were 60% more satisfied with the JOC process compared to Design-Bid-Build or Design-Build.



On Time

JOC streamlines the bidding process by putting contractors in place to perform a number of small projects with a single-competitively bid contract, enabling construction work to begin faster. Contractors who compared JOC to other methods reported JOC to outperform in delivering projects on time. Contractors responded that 94% of JOC projects are delivered on time, compared to only 63% for Design-Bid-Build and 73% for Design-Build.

Study Highlights



of owner respondents recommend JOC



of JOC projects completed with satisfactory results



of JOC projects delivered on budget



of JOC projects delivered on time

On Budget

Cost savings is a cornerstone of the JOC process, typically resulting from increased efficiencies in four areas: Procurement, Design, Construction and Post Construction. Owners reported saving, on average, 24% in administrative costs compared with other methods, while contractors reported a

21% total cost savings throughout the project. Regarding the cost savings, owners identified procurement administrative time, design and drawing costs, and decreased documentation demands as main contributing factors to the cost savings. Contractors reported that acquiring and bidding new projects, a decrease in change orders, and decreased time requirements impacted their cost savings.

Owners responded that **transparency is 30% higher for JOC**



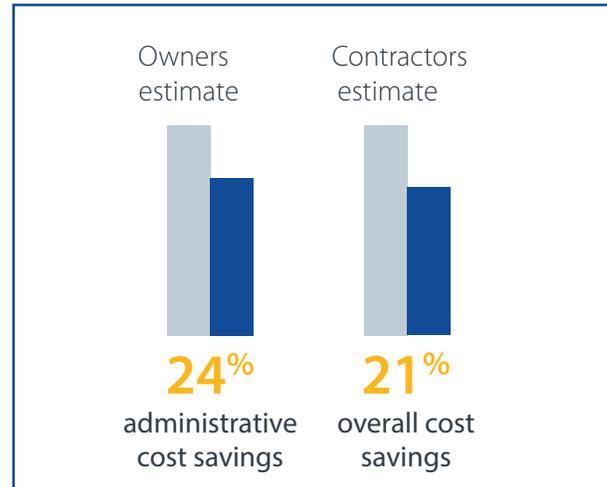
Owners believe **JOC is 76% more flexible**

Transparency & Flexibility

More benefits that are associated with the JOC procurement method are the transparency and flexibility it brings to projects and processes. Owners responded that transparency is 30% higher for JOC than traditional construction delivery methods. Owners also believe JOC to be an average of 76% more flexible than other methods.

Use of Technology

A clear majority (77%) of owners reported using software to support their JOC programs, and rated the importance of technology in JOC very high, giving it a 4.1 out of 5 rating. Using technology is critical to managing and measuring a high-performing JOC program.



Best Practices

The survey defined several best practices to fully realize the benefits associated with the JOC process. Implementation of these best practices enables those involved in the process to experience the most efficient and highest performing JOC programs.

The following items were identified as best practices:

- ✓ Selecting the highest performing contractors
- ✓ Eliminating contractor competition and task-order bidding
- ✓ Encouraging early involvement on contractor in developing the Detailed Scope of Work
- ✓ Ensuring use of a detailed unit price book in bidding documents
- ✓ Involving contractors in the design work

1. PricewaterhouseCoopers (PwC), 2009. "Need to know: Delivering capital project value in the downturn." [https://www.pwc.com/co/es/energia-mineria-y-servicios-publicos/assets/need-to-know-eum-capital-projects.pdf] Accessed September 16, 2015.

2. Lapatner, Barry, B., 2007, Broken Buildings, Busted Budgets, The University of Chicago Press, United States of America: Chicago

3. Rivera, A. O. 2014. Impact of a Non-Traditional Research Approach Case Study on the Performance Based Studies Research Group (PBSRG) (Master's Thesis, ARIZONA STATE UNIVERSITY).