New Managing Uncertainty Database Shows Under-funded Project Risks

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Preliminary findings from a new industry database suggest that typical building projects encounter two or more common risk factors but don’t provide adequate budget reserves to cover them.

The Managing Uncertainty database, now in its pilot stage, is sponsored by the Construction Owners Association of America, American Institute of Architects, AIA Large Firm Roundtable, Associated General Contractors, Design Build Institute of America, Lean Construction Institute, and Graphisoft.

Based on contributions to date from 40-50 project owners, the most common risk factors they experienced were accelerated schedules (53% of projects), unforeseen site or building conditions (48%), and owner program or design changes (39%). Owner changes had the greatest cost impact, averaging 4% of project construction cost. Accelerated schedules and construction delays each averaged 3%, and design errors or omissions averaged 2% of construction cost in projects currently included in the database.

The typical project encountered at least two of these common risk factors, suggesting a total average cost impact of 5-10%. However, 75% of the projects represented had budget reserves of 5% or less. This suggests that predictable risks were significantly under-funded by owners and project teams in the planning stage, likely resulting in scope compromises and budget overruns during construction.

The new Managing Uncertainty database is intended to be searchable for real cost experience based on project type, location, delivery method, and other parameters. It is based on findings of original research published in Managing Uncertainty and Expectations in Building Design and Construction, a McGraw Hill/Dodge SmartMarket report in 2014. This was followed by the Project Planning Guide for Owners and Project Teams, published by Dodge Data & Analytics in 2018. The guide includes a “contingency calculator” for consideration of common risk factors in project budgeting. These documents are available at www.analyticsstore.construction.com and many sponsor websites without charge.

We are seeking additional projects for the new database, focusing initially on education, healthcare, and office buildings. Contributors will receive summary reports from the database pilot and preferred access to the information that’s compiled. The process involves a survey form and follow-up phone interview. To volunteer or recommend owners for this important initiative, please contact Donna Laquidara-Carr at Dodge Data & Analytics: 781-430-8874 or donna.laquidara@construction.com.

Clark Davis, FAIA, Principal Consultant with Cameron MacAllister Group, leads the Managing Uncertainty research program for its industry sponsors.