

MAXIMIZING PROJECT SUCCESS SURVEY



Purpose: The University of Colorado at Boulder and Pennsylvania State University are conducting a survey to investigate the role of project delivery methods, contracting terms, procurement, team behavior and technology in project success. Please help us by completing the survey for at least one project you have completed in the last 5 years in the United States. The questionnaire should take between 20-30 minutes to complete. If needed, any follow-up interviews with the respondent will take approximately 30-45 minutes to conduct.

Confidentiality: The project information you provide will be kept in strict confidentiality, within a password protected database. Only the primary investigators and their research assistants will see and have access to your information. In the event of a publication or presentation based on the results of this study, no personal or company identifiable information will be shared.

Participation: Your decision to participate in this research is voluntary and you may withdraw at any time. There is no direct compensation; however, participants may request a copy of the final reports. If you have any questions, complaints or concerns regarding this research, you may contact Dr. Robert Leicht at (814) 863-2080.

Completed questionnaires may be returned by mail or email to:
 Dr. Robert Leicht, Dept. of Architectural Engineering, Penn State University
 104 Engineering Unit A, University Park, PA 16802
rmleicht@engr.psu.edu

SECTION I: PROJECT CHARACTERISTICS

Project name: _____
 Project location: _____
 Your name: _____
 Your company name: _____
 Phone number: _____ Email: _____

Specify your role on the project:
 Owner Contractor Architect/Designer Design-Builder
 Construction Manager Other: _____

Specify the closest or most appropriate project type:

Building gross square footage: _____ ft²
 No. of floors above grade: _____ No. of floors below grade: _____
 Percentage (by cost): Renovation _____ % New construction _____ %
 Percentage (by area): Renovation _____ % New construction _____ %

Please select the foundation type:
 Slab on grade with spread footings Caissons, piles or slurry walls
 Mat foundation Other: _____

SECTION II: PROJECT DELIVERY SYSTEM

Select the project delivery system best matching the delivery of your project:
 Design-Bid-Build Design-Build
 Construction Manager at Risk (CM/GC) Integrated Project Delivery

Select the contractual terms used for the following project participants (if Cost Plus, please also circle the fee type):

	Lump Sum	GMP	Unit Price	Cost Plus	N/A
Designer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Fixed / %	<input type="radio"/>
Contractor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Fixed / %	<input type="radio"/>
Design-Builder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Fixed / %	<input type="radio"/>

Were performance-based incentives used in any contracts? Yes No

SECTION III: PROJECT TEAM SELECTION

Denote when each project participant was contracted for the project (timing is based on percent of overall design completion):

	Pre-Design	Conceptual (0-15%)	SD (15-30%)	DD (30-60%)	CD (60-90%)	Bidding (Full CD)
Designer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contractor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design-Builder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Were specialty contractors involved before design completion? Yes No

Indicate how proposals were solicited from each project participant: (if multiple stages were used, mark all that apply):

	Open Bid	Pre-Qualification	RFP	Sole Source
Designer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contractor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design-Builder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which of the following factors were considered in the selection of each project participant (check all that apply):

	Price	Qualification	Design Aesthetics	Technical Proposal	Similar Project Experience	Interview Performance
Designer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contractor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design-Builder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Was the operation and maintenance (O&M) of the facility included in the contract scope of any team member or members? Yes No

SECTION IV: PROJECT SCHEDULE PERFORMANCE

Please provide the following schedule information:

	Contract (mm/dd/yy)	As-Built (mm/dd/yy)
Design start date (Notice to proceed)		
Construction start date (Notice to proceed)		
Construction end date (Substantial completion)		
Facility operational date		

SECTION V: PROJECT COST PERFORMANCE

What were the following total project costs?

Provide separate Construction Costs if known; otherwise, enter Total Project Costs only, indicating whether the cost data provided is estimated (E) or actual (A). Please deduct all property costs, owner costs, costs of installed process or manufacturing equipment, furnishings, fittings and equipment, or items not a cost of the base building.

	Construction Costs	Total Project Costs
Contract award	E / A	E / A
Final cost	E / A	E / A

Please estimate the cost of site work (work performed outside the building footprint) included in the project costs above: \$ _____

Are there any unresolved costs or change orders? Yes No

SECTION VI: PROJECT QUALITY PERFORMANCE

If you are the owner, please complete this section. If not, please provide the owner's name or point of contact: _____ and phone number: _____, and proceed to Section VII.

Relative to your expectations, evaluate the quality of the facility (1=Low, 6=High):

	Low	1	2	3	4	5	6	High
Difficulty of facility start-up		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Number and magnitude of call backs		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Operation and maintenance costs		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Envelope, roof, structure, foundation		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Interior finishes		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Environmental systems (lights, HVAC)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Exterior aesthetic (style, proportions)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Interior environment (mood, feel, image)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Mark the appropriate oval for your overall satisfaction with the design and construction process (1=Not satisfied, 6=Exceeded expectations):

Not satisfied 1 2 3 4 5 6 Exceeded

SECTION VII: SUSTAINABILITY

Specify any green or sustainable rating system used on this project:

What level of certification was achieved:

Planned _____ Awarded _____

Was actual energy usage tracked after project completion? Yes No

SECTION VIII: SAFETY PERFORMANCE

If you are the builder, please complete this section. If not, please provide the builder's name or point of contact: _____ and phone number: _____, and proceed to Section IX.

Number of recordable injuries: _____ Number of lost time injuries: _____

Work-hours for all onsite construction activities (indicate (E) for estimated or (A) for actual): _____ E / A

SECTION IX: PROJECT TEAM CHARACTERISTICS

Owner type: Public Private

Indicate the owner's type of relationship with the project team:

Designer First Time Repeat

Contractor First Time Repeat

Design-Builder First Time Repeat

Evaluate each of the following attributes of your project team:

Team's prior experience as a unit (1=Low, 6=High):

Low 1 2 3 4 5 6 High

Team chemistry (1=Poor, 6=Excellent):

Poor 1 2 3 4 5 6 Excellent

Timeliness of owner's decisions (1=Never on time, 6=Always on time):

Never 1 2 3 4 5 6 Always

Owner's ability to define scope (1=Poor, 6=Excellent):

Poor 1 2 3 4 5 6 Excellent

Were team members co-located or sharing a workspace? Yes No

During what phases was end-user input provided (check all that apply)?

Programming SD CD Operation

Conceptual DD Construction N/A

SECTION X: TEAM BEHAVIOR

Did the project team use a formal partnering agreement? Yes No

Who participated in setting the goals or targets for the project (check all that apply)?

Owner Architect/Designer Contractor Design-Builder
 Construction Manager Other: _____

To what extent to you agree or disagree with the following:

All project team members were committed to the same project goals. (1=Strongly disagree, 6=Strongly agree):

Disagree 1 2 3 4 5 6 Agree

Evaluate the communication among the project team:

Formality of communication (1=Informal, 6=Formal):

Informal 1 2 3 4 5 6 Formal

Timeliness of communication (1=Never on time, 6=Always on time):

Never 1 2 3 4 5 6 Always

How was contingency managed by the project team (check all that apply)?

Owner-controlled, external Shared, internal

Contractor-controlled, internal Other: _____

Relative to your expectations, denote the frequency of staff turnover within the project team (1=Low, 6=High):

Low 1 2 3 4 5 6 High

Has the project ever been in litigation?

Yes, resolved Yes, unresolved No

SECTION XI: PROCESS AND TECHNOLOGY

Did the team hold design charrettes? Yes No

Did any team member use Building Information Modeling (BIM) during the design and construction of the project? Yes No

If Yes, please explain:

What information was shared to the project team with an electronic file sharing and management system? (check all that apply)?

RFIs and Submittals Punch List Other: _____

Drawings/Specifications Financial N/A

BIM Design Reviews

Relative to your expectations, evaluate the administrative burden you experienced (1=Low, 6=High):

Low 1 2 3 4 5 6 High

List any lean tools or approaches used by the project team:

Was there off-site manufacturing or prefabrication? Yes No

If Yes, please explain:

SECTION XII: LESSONS LEARNED

Rate the overall success of this project (1=Poor, 6=Excellent)?

Poor 1 2 3 4 5 6 Excellent

List any lessons you learned on this project::

END OF QUESTIONNAIRE