

DATA COLLECTION TOOLS

Construction Manager/ General Contractor Survey:

1. What is the typical markup you receive for bid packages in today's market?
2. What is the typical markup you receive for contracts in today's market?
3. What do you feel is/are the major determinant(s) of this markup?
4. Are markups typically the same from subcontractor to subcontractor on bid packages?
5. How would you rate yourself in terms of having subcontractors return for future work with your company?
6. How would you define your negotiating practices for subcontractor change-orders?
7. How would you characterize your client base: targets of opportunity (one-shot deals), or repeat clients?
8. How would you describe your company's reputation and potential in the region?
9. How would you characterize your project teams with respect to project team turnover?
10. Please leave any additional comments or concerns regarding subcontract markups.

Also included in packet:

- Cover Letter
- Background Information
- Self-addressed Stamped Envelope (SASE)

Subcontractor Online Survey:

Found at <http://test.scripts.psu.edu/users/c/a/cav138/subsurvey/index.html>.

Part 1-

Rate the impact of the following variables on the contract markup for your work.	(-3) Greatly Reduce	(-2) Moderately Reduce	(-1) Slightly Reduce	(0) Keep the Same	(+1) Slightly Increase	(+2) Moderately Increase	(+3) Greatly Increase
1. You have had past successes with the CM/GC company, including some of the current project team members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The AIA Contract is vague with respect to your markup percentages, including any of your own specialty contractors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The CM/GC is recognized for staying on schedule and meeting all milestones.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The GC has been known to bid-shop on a regular basis.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. "Nickel-and-diming" practices are common for the CM/GC.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The CM/GC is a relatively new company in the industry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Though prominent in other areas of the country, the CM/GC is new to your region.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. From your perspective, the job is a "target of opportunity" (one-shot deal).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. You have had difficulty in the past working with some of the CM/GC personnel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. You have had difficulty in the past working for the CM/GC company, but are unfamiliar with the current team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scenarios:

1. You have had past successes with the CM/GC company, including some of the current project team members.
2. The AIA Contract is vague with respect to your markup percentages, including any of your own specialty contractors.
3. The CM/GC is recognized for staying on schedule and meeting all milestones.
4. The GC has been known to bid-shop on a regular basis.
5. "Nickel-and-diming" practices are common for the CM/GC.
6. The CM/GC is a relatively new company in the industry.
7. Though prominent in other areas of the country, the CM/GC is new to your region.
8. From your perspective, the job is a "target of opportunity" (one-shot deal).
9. You have had difficulty in the past working with some of the CM/GC personnel.
10. You have had difficulty in the past working for the CM/GC company, but are unfamiliar with the current team.

ALPHA CONSTRUCTION COMPANY

with the current team.

Part 2

Case Study 1: Alpha Construction Company

History of Company: Alpha is a national construction management firm that only recently has begun to expand into your region. They have a long history of successful jobs with repeat clients, but their unfamiliarity to owners and subcontractors in the region will slow the expansion process.

Reputation: Alpha is considered a premier CM firm in terms of delivering projects on time and on budget. However, this has been known to cause dissatisfaction among subcontractors who are often pinched for change in order to maintain budgets.

Typical Project Base: Healthcare & Healthcare renovation, Pharmaceutical & Biotech; University expansions; Medium to High Rise Offices

Current Project Information:

Project Team- With the exception of the General Superintendent, you are unfamiliar with anyone on the project team. Your experience with this Superintendent was on a job several years ago, when they worked for a local General Contractor and you didn't quite see eye-to-eye. The CM company has setup a team consisting of three Superintendents, two Project Engineers, a Safety Manager and a Project Manager, in addition to an Operations Manager.

Type of Project for Bid- Biotechnology laboratory

Complexity- High

Size- 250,000 sf

Cost- \$120,000,000

Please answer the following questions in the box provided:

What total markup OR multiplier would you assign for your work?

Briefly describe this value. What is/are the decisive factors?

BETA CONTRACTORS

Case Study 2: Beta Contractors

History of Company: Beta is a start-up General Contracting company that has been in the industry for only 3 years. Though lacking a deep project history, the company is owned and operated by two very experienced individuals that have a combined 60 years of project management experience.

Reputation: The Beta owners are well-recognized throughout the industry for their individual project successes. However, it is still unclear how successful they will be as a team in the region.

Typical Project Base: K-12 Education; Low to Med Rise Offices; Retail

Current Project Information:

Project Team- The team is composed of two Superintendents, two Project Engineers, and a Project Manager, who oversees safety as well. The Operations Manager is one of the owners, who splits their time among several projects. This is the most expensive project to date for Beta, as well as the first time you have worked together.

Type of Project for Bid- Middle School (Grades 6 through 8)

Complexity- Medium

Size- 180,000 sf

Cost- \$17,000,000

Please answer the following questions in the box provided:

What total markup OR multiplier would you assign for your work?

Briefly describe this value. What is/are the decisive factors?

CHOICE MANAGEMENT

Case Study 3: Choice Management

History of Company: Choice Management is a fairly large Construction Management and General Contracting firm popular to the area. They have an extensive list of projects completed in the area and are slowly expanding their regional base.

Reputation: Choice Management is known for delivering projects on schedule, and for generally receiving high owner satisfaction. They typically receive high regards from subcontractors as well. Though your company has done many successful projects for Choice, there have been a few instances of significant communication breakdowns.

Typical Project Base: Med to High Rise Offices; Office Renovations; Mission Critical

Current Project Information:

Project Team- The management team is composed of several individuals unknown to you, including two Project Engineers and the Safety Manager. You have worked on two successful jobs with the Superintendents and Project Manager, and expect this one to run equally as smooth.

Type of Project- Medium Rise Office Building (19 stories)

Complexity- Medium

Size- 500,000 sf

Cost- \$75,000,000

Please answer the following questions in the box provided:

What total markup OR multiplier would you assign for your work?

Briefly describe this value. What is/are the decisive factors?

CM/GC SURVEY RESPONSES	
1. What is the typical markup you receive for bid packages in today's market?	
1	Tough to answer with absolute certainty: Range of (-2) to (2)%
2	Not identified by sub as their bids are lump sum.
3	Bid Day 7-10%; CO's 15% plus
4	10 to 20%. Can vary by trade- MEP Team Approach bids are around 13%
5	Sub markup for OH&P self-perform is 12-20%. Sub's sub is 4-7%
6	General Condition Markup- 7-10% GC, 3-5% Fee = 10% to 15% Total O&P
Average	Discrepancies with interpretation- From -2% to 8%
2. What is the typical markup you receive for contracts in today's market?	
1	GC Level- 10%, Sub Level 10 + 5 or Flat 15%
2	Fee varies (company to owner) from 5 to 6%. Changes are 10-20%
3	1.75-2.5% CM@risk; 3-5% GMP's; 1-2% CM-Agency
4	Same as above- 10 to 20%, varies by trade.
5	Range is 3 to 5%. Based on project size and risk.
6	3% to 8%
Average	Discrepancies- Typically 10% OH + % % Fee = 15% OH&P
3. What do you feel is/are the major determinant(s) of this markup?	
1	Current backlog of sub, schedule fore execution of work reasonable, knowledge of work practices of GC, knowledge of individual GC team members, and owner entity
2	See Above - undisclosed by subs.
3	CM vs. GC- CM reduces risk; competition, and amount of work available
4	How the trade contractors run their business- estimates of salaried associates listed as cost of work(less) or overhead (more). Supply vs demand; economics of region.
5	Proper financial return on resources; project size; contract type & risk allocation; other team members (owner, architect, CM, etc)
6	Work Load; Complexity of Project; Schedule; Dollar Value of Project
Key Words	Schedule; Economics of Region; Project Scope; Other Entities; Risk Allocation/ Contract Type

4. Are markups typically the same from subcontractor to subcontractor on bid packages?	
1	Fairly consistent (no way to be known for sure)
2	Unknown
3	Usually similar by trades. Will vary greatly when there is a lot of work, and be very close if market is tight (supply vs demand)
4	Not typically the same. Team approach bids (MEP) markup is crucial- result of CM/GC defining what is cost of work and what is fee.
5	70% are the same, vary by trade req'ts. (ie., sheet metal fab sub will have much higher OH for fab. Facility, equip, etc)
6	No
Key Words	Varies by trade, but typically the same; Work availability impacts markup
5. How would you rate yourself in terms of having subcontractors return for future work with your company?	
1	Very good.
2	90%
3	Near 100%- Very loyal subs
4	90% - all about fairness.
5	Extremely high, subs like working for us.
6	Very Good- Select pool of subcontractors that work for us.
Key Words	Very Good- 90% to 100%
6. How would you define your negotiating practices for subcontractor change-orders?	
1	Firm but fair.
2	Fair but firm- obligation to protect client.
3	Firm but fair. Ethical and honest company
4	Pay a fair market value for a change order base upon market conditions. In-house estimates always performed, differences addressed before negotiation.
5	Fair. Pay the correct amount for changes as allowed in agreements. Very thorough in-house review.
6	Fair- Follow the contract language and strive to balance out issues on projects
Key Words	Firm but Fair; Ethical; Follow contract language; In-house estimates necessary

7. How would you characterize your client base: targets of opportunity (one-shot deals), or repeat clients?	
1	Establish a sound client base with longterm, repeat owners.
2	Repeat clients!
3	Repeat 70% plus
4	80% repeat.
5	80% repeat. Majority is negotiated.
6	90%
Key Words	Repeat Clients 70% to 90% of work
8. How would you describe your company's reputation and potential in the region?	
1	Size of company instills "fear factor" of doing business if haven't done already. However, always known to deliver, and have great potential in region.
2	Reputation is fair to subs, potential is unlimited.
3	Great reputation, long term player
4	True team approach builder, excellent services specifically w/ regards to precon. Excited about their future in the region.
5	Small market base. Very fair contractors, perform at a very high level of service to clients. Relationship driven.
6	Strong- good client base that is expanding.
Key Words	Varies- market base, size of company impact reputation; potential high for long-term growth
9. How would you characterize your project teams with respect to project team turnover?	
1	On average with industry. Turnover lost is to areas other than construction.
2	Did Not Understand.
3	Very minimal, none unwanted to date. Company wide is 8%
4	Under average- result of strong corporate culture that allows national status w/ consistency of small company.
5	Very low.
6	It occurs, but turnover is minimal in the key team positions.
Key Words	Low- all under average
10. Please leave any additional comments or concerns regarding subcontract markups.	
3	Markups are VERY market driven, no set rules. Other factors: Reputation of Owner/GC/Developer; level of risk
4	Purely a trade contractor's business decision,markup is whatever the market can bear. Once under contract, trades bound by O&P
Key Words	Markups market driven; Business decision of subs; Other entities and Risk important

SUBCONTRACTOR RAW RETURN DATA	
SURVEY #	
1	1 4 4 4 6 4 4 4 4 6 5 15 above cost and burden Cost to keep in business 15% above cost and burden Cost to keep in business 2007-03-07 13:18:18
2	1 4 5 3 6 6 6 4 4 7 6 7% over our cost Our bidding process includes extensive review of the plans and specs. We would cover our work in the normal review and might add 2% over what we normally would to cover unforeseen expenses,15% over cost These types of projects are cut and dried. Typically we are prime on every project of this nature. The other parties are all bonded. No concerns here.15% over cost Nothing in the description of the circumstances is out of the normal realm of possibility for our industry. We would use our normal mark-up and simply document any unforeseen circumstances in project meetings. 2007-03-07 13:52:08
3	1 4 4 5 7 7 4 4 3 5 5 30% Contractor does not CARE about the subs. No trust. Squeezing on change orders is Bull****. - as long as they are legitimate, in/a/n/a for Mechanical work - This type of job is only built in PA with separate primes - we would be bidding direct to the owner - the GC would be a separate prime 15% If they are popular with subcontractors - that means they are fair and that they pay. IT also means they are organized and hold each contractor accountable during the construction process. The biggest issue is Fairness - most CM's are not Fair. Additionally - they let the trust the subs and build a TEAM and practice the Golden Rule. 2007-03-07 13:58:59
4	1 3 4 4 6 6 4 4 5 7 6 10% Previous history.12% Size & type of project.8% Better daiber of CM/GC personnel. 2007-03-07 14:32:02
5	1 2 4 4 5 5 4 5 3 5 5 12% for OH & Profit. 15% on extras Smaller job may be 15%; this would be a large job for us 15% Our standard mark-up 13% to 14% Good repeat client 2007-03-07 15:41:49
6	1 3 4 4 6 7 5 4 4 6 6 15% not local, unfamiliar with their team, the guy we know has hassled us in the past 0% Years of experience, quality, honesty, fairness of the principals is key 10% Once again -- "the company" doesn't matter much to us. We are relationship oriented and you don't have a "relationship" with the GC -- you have one with the people who are running the job. In this case, we've had issues in the past, we might have issues in the future... 2007-03-07 17:29:05
***7	1 0 0 -2 3 2 2 0 3 2 8 -9% markup for a total value of around \$18M (based on historical averages of our division of work for this size of project would be a standard markup. A multiplier (add of 1-2% for poor working relationship or performance would be as much as the project could afford) Project scale dictates the relatively low percentage of markup upon entry of the project. Likely there is a relatively short bidders list of local knowledgeable subcontractors of which only we (in the case of your example) had a distaste for the superintendent. Bidding the project at any higher multiplier would be a waste of time as other bidders wouldn't make consideration for this and we'd lose the job. Many jobs are performed where the personnel are sub-standard. We work around these issues. It should be noted that additional work items (extras) would require a markup of 10-20% minimum to cover the costs of changes. More so when the superintendent (or other team members) are sub-standard. The owner typically bears these costs in the long run. 10-15% based on the project type and size. Likely no multiplier would be assigned. Again, the extras would be charged at a higher fee to cover the increased cost of administering the changes. First, the assumption is that the project is bonded (we aren't assuming financial risk of a new company). Next, the focus of individuals with talent, whose reputation is on the line would be a driving force and probably lead to a successful project. Often times, large companies spend more time overstuffed, working on sideline logistics (tracking, reporting, safety, EEOC) than they do building the building. Smaller, more focused companies often get the job done more efficiently. 18-9% markup for a selling price of around \$8M. A markdown multiplier of 1-2% would be as much as we'd be able to afford and still maintain our margin. Extras would be charged at around 10-15% markup. A good working history goes a long way. The project would presumably be completed in an organized manner and completed and closed out on time or ahead of schedule. This includes a smooth system for tracking changes, processing change orders and issuing timely payments. 2007-03-07 22:17:12
8	1 0 0 1 1 0 0 0 0 1 1 15% 5% additional due to three factors. 1. Unfamiliar relationship 2. Historically CM/GC's payments are slow 3. Change orders are more difficult to get approved 15% Two factors 1. New companies have poor cash flow and hence slow pay 2. New companies try to make their reputation for on time and on budget at the subs expense. 10% Three factors 1. GC is a known commodity hence less risk 2. GC pays on time 3. GC builds on time and in budget so follow on work beyond this project is a strong possibility. 2007-03-08 07:25:12
9	1 -1 -1 -1 2 1 0 -1 -2 2 This would depend on a many variables. First, are we working directly for the CM or a GC? Do we feel we are going to get paid on time? How long is the retained amount held on our company? How desirable is the project? How good ar Please note that the Architect and Engineer play as big a role in how much we add to the markup. They really control how many change orders a project may have by the quality of their work. They also have the ability to approve or deny change orders. They
10	1 -1 -1 0 2 3 1 0 2 2 30% A superintendent can make or break a job from a subcontractors standpoint. 25% There is more risk involved due to the newness of the firm, however, depending on previous relationships with the principals there may be reason to r 10 20% During the course of the job you can sense when a cm/gc gives a damn whether a sub makes money or not. We realize that they represent the owner, however, it's nice to see them be an advocate for the sub when there have been errors made in the spec subs and on-site project managers and superintendents. 2007-03-09 15:29:47
11	1 -2 1 -2 2 2 1 0 1 2 18% Complexity of a Biotech building and the Superintendent. 18% Although medium complexity, concern for the size of the project with this CM. 20% The Cm will be very demanding to please his client and maintain his reputation. Also, this is a somewhat large project. 2007-03-10 13:54:32

<p>1-2-21 1-2-3-2-1-1-2-3-3 hourly rate \$65.00-80.00 depending on job classification</p> <p>***12</p> <p>Material mark up 10-30%</p> <p>Markup subs 10%</p> <p>True markups Prevailing wage is a big factor and is not justified in this market, but you favor it and it is out of control same as above We try to help new companies work within the system. Most of the time they forget when the next job comes up. same as</p>	<p>0 0 1 1 0 0 0 0 5% Overhead & 10% Profit We base our decisions on Overhead & Profit. Although personalities & decision do factor in to the equation we have not developed any strategies to markup a project based on this factor. The specifications and drawings dictate the intent and any legitimate changes will be addressed accordingly. 5% Overhead & 10% Profit We base our decisions on Overhead & Profit. Although personalities & accordingly . 5% Overhead & 10% Profit We base our decisions on Overhead & Profit. Although personalities & decision do factor in to the equation we have not developed any strategies to markup a project based on this factor. The specifications and drawings dictate the intent and any legitimate changes will be addressed accordingly. 2007-03-14 13:25:37 </p>	<p>14</p> <p>-1 1-2 3 3 2 1 1 2 2 20% overhead and profit Approximately 5% for overhead and 15% for profit. If the CM had a local positive track record, the profit portion may be trimmed to as low as 10% for a very large contract. 18% overhead and profit 5% overhead</p>	<p>15</p> <p>0 1 0 1 1 0 0 0 1 1 .25-1.30 depending on actual project cost. Would be on the higher end due to complexity of job as well as the specialization of the work. Primary decision factors would be percentage of labor to materials first. Labor is the determining factor on any of this due to the overhead costs associated. If a material-only project you could easily go 10-15% on the mark-up. Labor portion pushes this value up. Company pricing requirements may also apply. 1.20-1.25 due to complexity and easier use of change orders in a school market This is a low bid project to start with - get the job and then manage the margin on a job like this. 1.20 to 1.25 This is a low bid project to start with - get the job and then manage the margin on a job like this. 2007-03-14 14:35:54 </p>	<p>16</p> <p>-1 0 1-1 2 1 0 0 -1 2 18% Current market traits, volume of workload, location, type of work, work restrictions, owner stipulations, time constraints. 15% Complexity of the project, location, contractor history. 12% Relationships between the firms, maintaining schedules, High owner satisfaction. 2007-03-14 16:13:14 </p>	<p>17</p> <p>-1 0 0 0 2 0 1 -1 2 2 12% overhead and 10% profit. Extra 2% profit for the hassle. Do not bid school work. N/A 12% overhead and 10% profit. Would anticipate getting a last look. 2007-03-14 16:25:33 </p>	<p>18</p> <p>2 2 3 3 3 3 3 3 0 10% overhead</p> <p>15% profit We do not build our overhead in the estimate. Year end statements show 10% for overhead for example, blue prints, hydraulic calculations, fax machines, lights trucking and gas. electrical and utility 10% overhead, 15% profit Same as above 10% overhead 15& profit Same as above 2007-03-14 16:46:50 </p>	<p>19</p> <p>0 2 -1 2 3 2 1 1 2 3 20% Mark-up Pinching subs for cost overruns, Team unfamiliarity, Negative past experience 15% Mark-up Plus side-experienced involved owners, Negative side-may be under staffed for a project this size 10% Reputation for treating subs well, Positive past experience, Maintain established relationship with a quality firm 2007-03-15 09:12:24 </p>	<p>20</p> <p>0 0 0 2 1 1 1 1 3 -2 2 1% markup on total costs Our overhead percentage averages from 12 to 15% depending on annual volume. We then would put 5% profit on top of 15%, 1.15 x 1.05 = 1.207 Therefore 20.7% rounded up to 21%. Same as above Same as above. Keep in mind that the base contract amount was probably bid with a much lower markup. Therefore, all change order work should be quoted with fair and reasonable markup as described above based on our particular business structure. We are a site work contractor which has a considerable fleet of equipment which drives our overhead support percentage higher than other specialty contractors. Further, and the inherent risk due to the nature of our work is extremely high as opposed to say a drywall subcontractor. Again our standard markup would apply whenever we can get it. Same 2007-03-15 09:38:00 </p>	<p>21</p> <p>0 2 1 2 2 2 2 1 2 2 40% Most times a construction management firm is involved in a project it causes additional paperwork for subcontractors. Typically it is an additional link in the communication chain that hinders progress on the project. They normally are hesitant to make decisions and they are hesitant to assume responsibility for their actions. Same as previous response. The involvement of a construction manager. Same as previous responses. Same as previous responses. 2007-03-16 13:10:23 </p>	<p>22</p> <p>2 0 0 -2 -1 0 0 -2 0 0 15% 10% of our money will be held as retainage for a long period of time so we need to sell work at 15% to operate with a positive cash flow since we do not hold 10% retainage on any of our vendors and pay them in full upon completion of their work, delivery of their fabricated materials o.b. the job site. 20% schools are typically harder to punch out than office buildings, healthcare and industrial projects and more management intensive i.e. more coordination with other trades) so the additional 5% is required in a good market to cover project management overhead 25% The smaller the project the more mark-up / profit we typically put on our bid recap to cover management costs, economies of scale, etc. 2007-03-18 20:44:01 </p>	<p>23</p> <p>1 -1-1 3 3 0 0 0 3 2 I would be a little safer than typical If the Super was a real a**hole or if it was the job we worked on together I never get involved with any school projects. The schoolboards are typically a bunch of a**holes and the job never see</p>	<p>24</p> <p>-3 0 -3 0 2 0 0 -2 1 1 Moderate No different between them & other GC's Moderate Same as above Lower End Give advantage to GC who I know will be fair 2007-03-20 07:21:11 </p>	<p>25</p> <p>0 0 2 2 1 0 1 2 1 25% standard 30% a little extra for questions 35% extra for problems 2007-03-21 13:44:11 </p>
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-SUB SURVEY STATISTICAL ANALYSIS-

Part 1:

Markup Impact	Scenario Number									
	1	2	3	4	5	6	7	8	9	10
-3	1	0	1	0	1	0	0	0	1	1
-2	4	1	3	2	0	1	0	4	0	1
-1	8	0	5	0	1	0	2	4	0	0
0	10	16	11	2	2	13	14	10	2	3
+1	0	5	4	4	5	4	6	6	6	7
+2	2	3	0	12	9	6	2	0	10	12
+3	0	0	1	5	7	1	1	1	6	1
Total Responses	25	25	25	25	25	25	25	25	25	25
Average Impact	-0.60	0.36	-0.28	1.56	1.60	0.68	0.44	-0.12	1.64	1.16

Markup Impact Scale

Greatly Reduce	Moderately Reduce	Slightly Reduce	Keep the Same	Slightly Increase	Moderately Increase	Greatly Increase
-3	-2	-1	0	1	2	3

CASE STUDIES- STATISTICAL ANALYSIS AND SUMMARIES

Alpha Construction Company			
Survey	Sub's Definition	Multiplier	Reason
1	15% + cost/burden	0.0%	Cost to keep in business
2	7%	2.0%	Review process is extensive. Add 2% for unforeseen conditions
3	30%	15.0%	No trust on CM behalf. Squeezing change orders unethical practice, unless justified.
4	10%	0.0%	Previous history.
5	12% OH&P, 15% extras	0.0%	Smaller job would be 15%, this is a large job personally.
6	15%	15.0%	Not local, unfamiliar with team, hassle in the past.
7	8-9%, +1-2% markup	1.5%	1.5% for poor working relationship. Low (fewer bidders, waste of time if marked up more.
8	15% +5%	5.0%	Unfamiliarity, CM/GC's are slow with payments, and change orders difficult to approve
9	n/a	0.0%	0% if complete. Depending upon completeness of project, where contract is held- many variables
10	30%	5.0%	A superintendent can make or break a job for a subcontractor
11	18%	3.0%	Superintendent, complexity of biotech
12	***	***	***
13	10%		For any cost overruns as a result of dealing with new people not accustomed to our company
14	15% OH&P	0.0%	no strategies to markup a project based on these factors- specs/drawings dictate
15	20%	5.0%	15 Profit, 5 OH. If CM has positive track record, profit could be trimmed to 10%.
16	25-30%	10.0%	Complexity, specialization labor to materials high. Labor costs is decisive factor due to overhead
17	18%	3.0%	Current market traits, workload, location, type of work, work restriction, owner stipulations, time
18	10% OH, 15% P	0.0%	No overhead in estimate- 10% for General conditions costs
19	20%	5.0%	Pinching for overruns, team unfamiliarity, negative work experience
20	21%	0.0%	12 to 15% annual volume, plus 5% profit --> 20.07% = 21%
21	***	***	CM involvement- paperwork, additional link, hesitant and thus hinders progress
22	15%	0.0%	10% retainage thus 5% required for positive cash flow to pay vendors
23	***	***	***
24	Moderate	0.0%	No distinction from other GC/CM's
25	25%	0.0%	Standard
Average		3.3095%	Project Scope; Market; CM (-)= hassle, bad relationship, add. link; CM (+)=none;

Beta Contractors			
Survey	Sub's Definition	Multiplier	Reason
1	15% + cost/burden	0.0%	Cost to keep in business
2	5%	0.0%	Cut and dried, no issues. Usually prime on these projects and bond lower subs.
3	n/a	n/a	Mechanical work is multiple prime in PA for these jobs, thus bid is direct to owner.
4	12%	2.0%	Size and type of project
5	15%	3.0%	Std. markup
6	0%	0.0%	Years of experience, quality, honesty, fairness of principals is key
7	10-15%, 0% markup	0.0%	Talent of CM, personal risk of CM thus expect good results- smaller, more focused CM
8	15%	0.0%	New companies- poor cash flow, and build own reputation for sched/budget at sub's expense
9	5-10% markup	7.5%	Many variables- contract with G/C; approvals, drawings, payments on time?, retainage, G/C abilities
10	25%	0.0%	More risk due to newness of company, but experience with principals enables slight markdown
11	18%	3.0%	Size of project a concern for CM despite med. Complexity
12	***	***	***
13	20-25%	0.0%	Despite experience, company has no proven track record- sub needs cover from risks and delays
14	15% OH&P	3.0%	no strategies to markup a project based on these factors- specs/drawings dictate
15	18%	3.0%	13 Profit, 5 OH. Risk is moderate
16	20-25%	5.0%	Complexity, ease of change orders in school market. Low-bid project- get job then manage margin
17	15%	0.0%	Complexity of the project, location, contractor history.
18	10% OH, 15% P	0.0%	No overhead in estimate- 10% for General conditions costs
19	15%	0.0%	Experienced, involved owners; negative side project may be understaffed
20	21%	0.0%	12 to 15% annual volume, plus 5% profit --> 20.07% = 21%
21	***	***	CM involvement- paperwork, additional link, hesitant and thus hinders progress
22	20%	5.0%	Schools are hard to punchout- add 5% for management costs
23	***	***	***
24	Moderate	0.0%	No distinction from other GC/CM's
25	30%	5.0%	Extra for questions
Average		1.6%	Project Scope; CM (+)= experience; CM (-)= no history, size/risk; Std. Markup

Choice Management			
Survey	Sub's Definition	Multiplier	Reason
1	15% + cost/burden	0.0%	Cost to keep in business
2	5%	0.0%	Normal markup, typical situation. Document unforeseen conditions in mtgs.
3	15%	0.0%	CM is fair and holds subs accountable. Fairness, Team Building, Golden Rule main factors.
4	8%	-2.0%	Better caliber of CM/GC personnel
5	13-14%	-1.5%	Good repeat client.
6	10%	10.0%	CM/GC company non-issue, rather the personnel. Issues in the past thus potential for more.
7	8-9%, 1-2% markDOWN	-1.5%	Good working history. Expected level of organization to reduce schedule
8	10%	-5.0%	GC is a known commodity= less risk; pays on time; builds on time/budget so future work expected
9	2-4% markDOWN	-3.5%	Good history; aggressively help CM/GC by providing lowest price- A/E has major role
10	20%	-5.0%	CM/GC cares if sub makes money or not, esp. when owner/A/E is at fault- superintendent key
11	20%	-5.0%	CM will be determined to please owner. Project also large
12	***	***	***
13	0%		Confident that the job will be successful, based upon history
14	15% OH&P	0.0%	no strategies to markup a project based on these factors- specs/drawings dictate
15	18%	3.0%	13 Profit, 5 OH. Risk is moderate
16	20-25%	5.0%	Low bid project- get the job first then manage the margin
17	12%	-3.0%	Relationships between the firms, maintaining schedules, high owner satisfaction
18	10% OH, 15% P	0.0%	No overhead in estimate- 10% for General conditions costs
19	10%	-5.0%	Treat subs wells, past experience and positive relationship
20	21%	0.0%	12 to 15% annual volume, plus 5% profit --> 20.07% = 21%
21	***	***	CM involvement- paperwork, additional link, hesitant and thus hinders progress
22	25%	10.0%	The smaller the job, the higher the markup- economies of scale, mgmt. costs
23	***	***	***
24	Low-end	-5.0%	Low end- Advantage to GC who will be fair to subs
25	35%	10.0%	Extra for problems in past
	Average	0.1%	CM(+)= fair, good experiences; CM(-)= problem in past, risk; Project Scope; Market