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Bidding Patterns of Successful Low Bidders
by Dave Robertson

***More than 10% of all successful bids
are won by less than 1%***

Bidding on construction projects is a complex and challenging process. It is an expensive but necessary part of being in the business of construction contracting. Every contractor will relate to the experience of fine-tuning their bid to the very last nickel and still being second low bidder by only the thinnest of margins. We wondered just how often this happened, and if there was anything that could be learned from taking a closer look at the bidding patterns of the successful low bidders. In particular, it might be instructive to measure your company's performance against the identified industry effectiveness of your estimating and bidding success.

Methodology

The data parameters for this study were determined by the author and are as follows:

- 1) The tenders closed between August 22nd 2001 and September 8th 2004.
- 2) The projects were all located in British Columbia, Canada.
- 3) The projects were all publicly tendered and the bidding results are public information.
- 4) The total number of results evaluated was 1,927.
- 5) Six of the 1927 results were excluded from the final data set as the percentage difference between the low bid and the second bid ranged between 800% and 1,500% and were deemed to be excessive anomalies.

- 6) The data was recorded by the four BC Construction Association affiliated Regional Construction Associations in BC (Northern BC Construction Association, Southern Interior Construction Association, Vancouver Regional Construction Association, Vancouver Island Construction Association) and is available to members in their *PlanroomServer* application. *Note: The Author wishes to acknowledge and express appreciation to the Associations for permitting the use of this data for this study.*
- 7) In this study, the objective is to evaluate bidding patterns leading to a contractor being declared the Low Bidder (“Successful Low Bidder”). While it is reasonable to assume that the vast majority of these projects were awarded to the low bidder there has been no attempt made to confirm the projects were actually awarded for the prices indicated in the study. There was also no available data and no attempt to evaluate the impact of separate, alternate or unit prices on the success of a bid.

After gathering the core data and excluding the anomalies, the data was analyzed:

- The percentage differences between the low bid and the second low bid on each project were calculated.
- The percentage difference between the low bid and the second low bid for all projects was determined. The average of all bids for each project was calculated.
- The average of all bids for all projects was determined.
- The percentage difference between the low bid and the second low bid for all projects within geographic regions was determined.
- The percentage difference between the low bid and the second low bid for all projects within specific project value ranges was determined.

The Findings

The base findings of the study are as follows:

- 1) The total number of bids analyzed was 7,913, an average of 4.12 bids per project.
- 2) The average value of the low bid was \$1,041,485.
- 3) The average percentage difference between the low bid and the second low bid was 13.27%.
- 4) The average percentage difference between the low bid and the average bid price was 31.5%.
- 5) The median differential (#960 of 1,921) percentage difference between the low bid and the second low bid was 5.5%.

Percentage differences are interesting, but just how thin is the margin between being declared the Successful Low Bidder and an unsuccessful bid? The short list of notable examples shown in *Table 1* makes it clear just how close the difference can often be. These are some of the closest results of the total number of 1,927 results evaluated for this study. It is obvious from these numbers that no matter how big or small the project second place is often just a few dollars away.

Some Notable Numbers			
Low Bid	2nd Low Bid	\$ Difference	% Difference
\$533,716.00	\$533,716.00	\$0.00	0.0000%
\$284,620.00	\$284,620.00	\$0.00	0.0000%
\$547,129.00	\$547,129.28	\$0.28	0.0001%
\$912,454.73	\$912,458.00	\$3.27	0.0004%
\$1,297,269.00	\$1,297,360.00	\$91.00	0.0070%
\$6,385,860.00	\$6,386,437.00	\$577.00	0.0090%
\$1,494,780.00	\$1,495,000.00	\$220.00	0.0147%
\$3,103,566.34	\$3,104,029.00	\$462.66	0.0149%
\$1,207,813.54	\$1,208,030.00	\$216.46	0.0179%
\$76,513.00	\$76,532.00	\$19.00	0.0248%
\$2,263,443.67	\$2,264,033.00	\$589.33	0.0260%
\$11,982,930.00	\$11,986,634.00	\$3,704.00	0.0309%
\$290,900.00	\$291,000.00	\$100.00	0.0344%
\$817,615.00	\$818,000.00	\$385.00	0.0471%
\$235,282.00	\$235,400.00	\$118.00	0.0502%
\$42,310.00	\$42,332.50	\$22.50	0.0532%
\$3,123,043.08	\$3,124,818.37	\$1,775.29	0.0568%
\$148,413.00	\$148,500.00	\$87.00	0.0586%
\$662,532.23	\$662,926.00	\$393.77	0.0594%
\$388,750.00	\$389,000.00	\$250.00	0.0643%
\$165,636.00	\$165,743.00	\$107.00	0.0646%
\$3,667,300.00	\$3,669,978.00	\$2,678.00	0.0730%
\$187,398.00	\$187,540.00	\$142.00	0.0758%
\$198,499.15	\$198,650.00	\$150.85	0.0760%
\$449,358.81	\$449,737.91	\$379.10	0.0844%
\$963,093.00	\$964,025.00	\$932.00	0.0968%
\$1,620,364.13	\$1,622,072.00	\$1,707.87	0.1054%
\$399,296.00	\$399,720.97	\$424.97	0.1064%
\$5,755,530.00	\$5,761,950.00	\$6,420.00	0.1115%
\$1,620,364.13	\$1,622,072.00	\$1,707.87	0.1054%
\$399,296.00	\$399,720.97	\$424.97	0.1064%
\$5,755,530.00	\$5,761,950.00	\$6,420.00	0.1115%
\$2,342,116.00	\$2,344,755.00	\$2,639.00	0.1127%
\$25,198,308.00	\$25,228,460.00	\$30,152.00	0.1197%

Table 1

Chart 1 below, details the distribution of the results across the entire sample. As might be expected, there is a roughly even distribution of price differences across the percentage spectrum with the notable exception of the 10% - 15% range, where a significantly greater number of percentage differences are found. More detailed analysis, provided later, will show that the highest price volatility exists in the lower dollar valued projects.

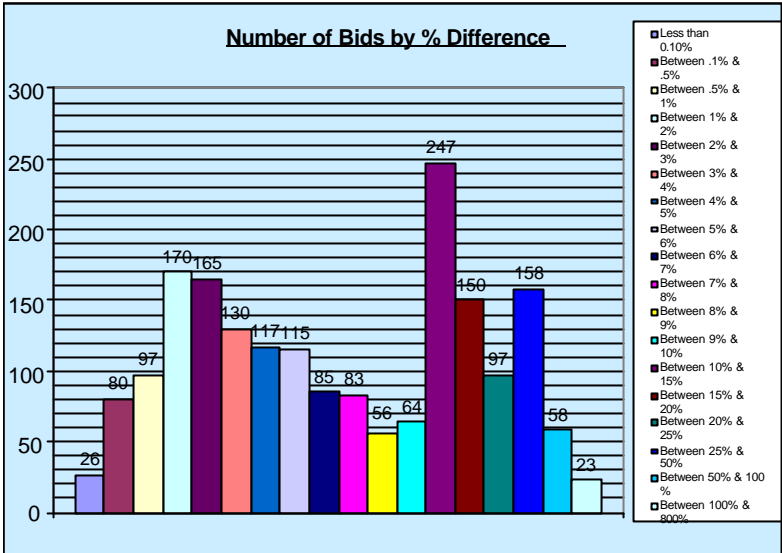


Chart 1

Table 2 below details the distribution of low bids by percentage difference between the low bidder and the second low bidder. It is notable that 1.4% of low bids are won by 0.1% or less, 5.5% by .5% or less, and 10.6% by 1.0% or less.

% Diff. low to 2 nd Bid	No. of Results in % Range	Cumulative No. of Results	% of Low Bids
0.1%	26	26	1.4%
0.5%	80	106	5.5%
1.0%	97	203	10.6%
2.0%	170	373	19.4%
3.0%	165	538	28.0%
4.0%	130	668	34.8%
5.0%	117	785	40.9%
6.0%	115	900	46.9%
7.0%	85	985	51.3%
8.0%	83	1068	55.6%
9.0%	56	1124	58.5%
10.0%	64	1188	61.8%
15.0%	247	1435	74.7%
20.0%	150	1585	82.5%
25.0%	97	1682	87.6%
50.0%	158	1840	95.8%
100.0%	58	1898	98.8%
800.0%	23	1921	100.0%

Table 2

Chart 2 and Table 3 below tell a clear story. The higher the actual dollar value of the bid, the tighter the bidding. On the largest projects, almost half of them are won by less than one percent. Table 3 demonstrates that in actual dollar terms, one percent is a large number on the largest category of projects representing between \$100,000 and \$500,000 difference.

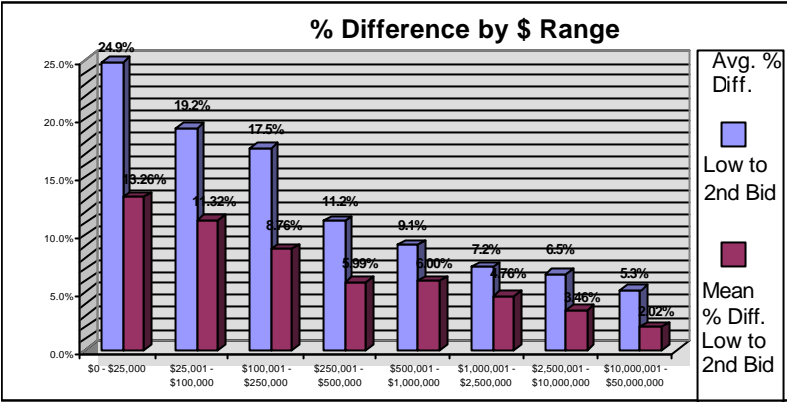


Chart 2

% Difference low bid to 2 nd bid	Total #	1.0% or Less		0.5 % or Less		0.1% or Less	
		#	%	#	%	#	%
\$0 - \$25,000	46	1	2.2%	1	2.2%	0	0.0%
\$25,001 - \$100,000	337	14	4.2%	8	2.4%	2	0.6%
\$100,001 - \$250,000	456	26	5.7%	12	2.6%	5	1.1%
\$250,001 - \$500,000	362	41	11.3%	22	6.1%	4	1.1%
\$500,001 - \$1,000,000	255	36	14.1%	18	7.1%	7	2.7%
\$1,000,001 - \$2,500,000	260	39	15.0%	18	6.9%	4	1.5%
\$2,500,001 - \$10,000,000	182	36	19.8%	23	12.6%	4	2.2%
\$10,000,001 - \$50,000,000	23	10	43.5%	4	17.4%	1	4.3%
	1,921	203	10.6%	106	5.5%	27	1.4%

Table 3

Regional Analysis

There is a measurable difference in results, depending upon which region of the province the bid closed in. Table 4 details results that range almost a full 5% based upon the average bid price.

Average % difference all results	13.27%
Average % difference Northern BC (341 results)	16.55%
Average % difference Southern Interior BC (622 results)	11.56%
Average % difference Vancouver Island (615 results)	12.53%
Average % difference Lower Mainland (343 results)	14.61%
Median % difference (#960 of 1921 results)	5.5%

Table 4

How Do Your Results Measure Up?

While this information may be interesting, you might wonder how to make it relevant for your company. The simplest way is to assemble a reasonable sample of bid results from your most recent successful bidding activity. Calculate the percentage difference between your low bid and the second low bidder on each project. Calculate the average percentage difference of all the results. How does this compare to the Overall Industry Average benchmark identified in this study of 13.27%? How does it compare to the averages identified based upon the dollar value of the project? The lower the number, the less money that is typically left on the table, which provides at least one measure of your bidding efficiency.