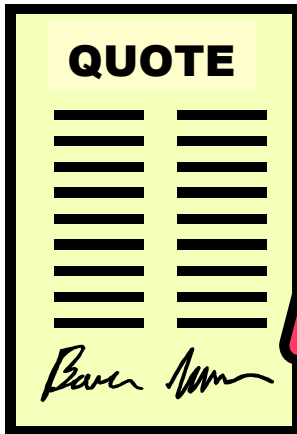

SPEED TO MARKET

A Newsletter for
Job Shops–Niche Manufacturers–Focused Distribution Systems
Published by Delta Dynamics Incorporated
August 2005

[Printer Friendly Version](#)

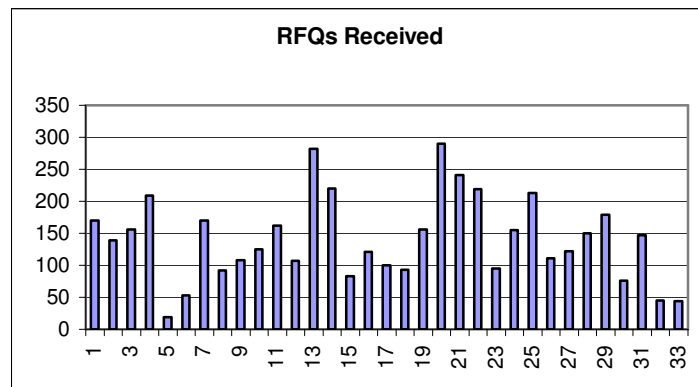
The Ins and Outs of Job Shop Quoting



Lowering your price to increase sales is such an accepted law of business that no one bothers to question it. It's beyond truth.

But what if it's not true...or only partially true? Could you be lowering your prices when you should be holding firm...or even increasing them? Could you be loading your shop with unprofitable work because you are blindly following the logic of this rule? Let's take a look.

Volume in order-driven businesses like job shops is not steady, or "level-loaded" in the jargon of manufacturing experts. Rather, it tends to run in cycles with peaks and valleys similar to the pattern shown in the graph below. (These are actual numbers from the *Weekly Performance Report* of a general-purpose machine shop in Michigan.) It illustrates RFQ's received by week. Notice the number ranges from a low of 19 (representing about \$21,000, to a high of 290 RFQ's (representing about \$300,000). This gives you some idea of the volatility of RFQ's received and their value swings.



Typically, when the number of RFQ's trails off, and work starts drying up on the floor, the tendency is to underbid in the hopes of winning enough work to avoid layoffs, as well as to cover some portion of fixed overhead expenses. "Unprofitable work is better than no work at all" is the logic.

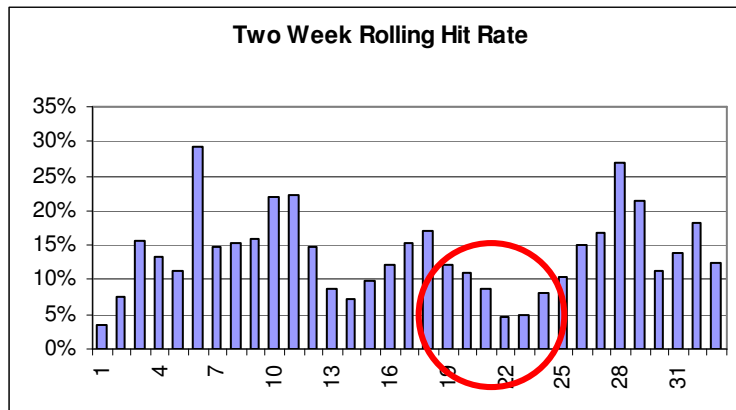
The first step in unraveling this logic, however, is to recognize that price has nothing to do with the *number* of RFQ's received. The number of RFQ's is independent of price. Rather, this number is a function of several factors...the number of bid lists the shop may be on, proactive marketing and sales efforts, and overall demand in the customer base for the type of work your shop performs.

This is very important to recognize. The ebbs and flows of RFQ's received are driven by the larger business environment in which your shop operates. In the auto business, for example, the launch of new models from prototype development to production can flood tool shops with work. The need to increase refinery capacity in the oil industry can flood makers of pressure vessels and pipe spooling. The point is that larger industry or business conditions within which any shop operates will affect the volume of RFQ's coming to that shop.

Referring to the previous graph, *RFQ's Received*, suppose you are in weeks 15-18 and are experiencing a lack of work. The number of RFQ's is down and you decide to lowball RFQ's coming in the door in order to snag a few orders, get some work on the floor, and pay a few bills. And suppose your are successful. Now what you have done is load your shop with unprofitable work. Essentially, you have sold your capacity for the next few weeks, and are now committed to producing and shipping the orders you have booked. The problem is, this is low or no margin work.

And then look what happens...the cycle of RFQ's goes into an upswing. All of a sudden you are swamped with RFQ's for new work (weeks 19-25 on the graph *RFQ's Received*), only you can't quote or win as much of this work as you might like because you have already sold your capacity. Your shop is full of unprofitable work. As a result of the work you have already booked, your ship dates are extended which probably makes you noncompetitive for work customers want in a hurry (which is more and more the norm these days).

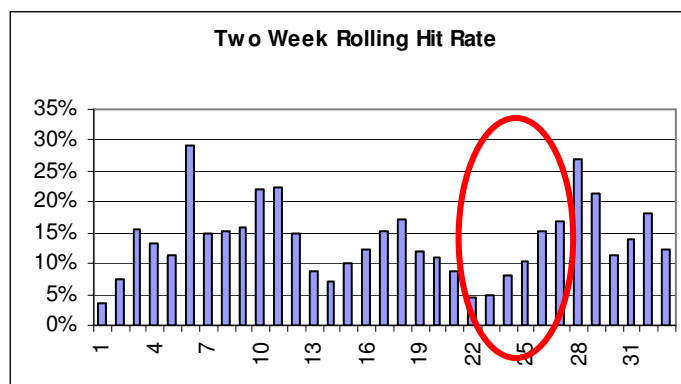
The next graph, *Two Week Rolling Hit Rate*, shows what your hit rate looks like. Notice your lowball strategy was successful. You won an increasing number of orders in weeks 15-20, but won very few orders in weeks 21-25 even though the number of RFQ's was on the rise before and during that period. The decline in the hit rate was not a function of bid price; rather, it resulted from the fact the shop could not meet the specified delivery dates.



Here is another thing that happens. You are likely to be on the same bid list with the same customers as your competitors. This means there is a limited amount of capacity available to these customers among all these shops, so capacity is at a premium during periods of peak demand. You are not going to have any capacity to sell if you panicked during the down part of the cycle and won a bunch of lowball jobs. If you get out of synch with the rise and fall of RFQ's coming in the door, you can wind up continuously loading your shop with unprofitable work, and missing the peaks when demand increases. This is like buying high and selling low in the stock market. Subtle judgments are needed in quoting and selling the capacity of a shop.

What can you do? Readers of this Newsletter are probably sick and tired of hearing us beat the drum about the need to install and use a *Weekly Performance Report (WPR)*. However, it is an essential tool for managing a job shop (or any business for that matter), and enables you to stay on top of critical information virtually in real time. Had you installed a WPR, as this shop has done, you would have a good idea of the demand cycle. Knowing what this pattern looks like might lead you to be a bit more patient and soft-pedal the lowball strategy during slow periods. This is not easy to do when work is dwindling, and you have a payroll to meet and rent to pay. But if you know what this demand pattern looks like over time, and when it is likely to increase, you can selectively choose fewer RFQ's to low bid even when work on the floor is drying up. You can also go out and make sales calls, and maybe take advantage of your available capacity by selling time and materials jobs that customers require ASAP. This can help get you through slow times without having to resort to underbidding RFQ's.

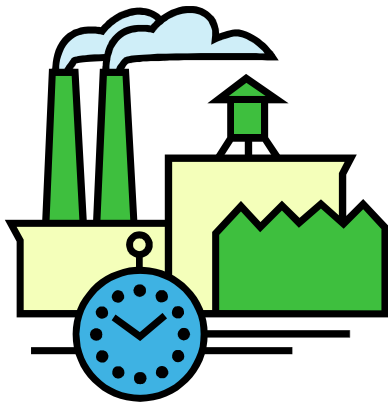
When we put his strategy in place with this client, and held off on underbidding RFQ's, look what happened in the next cycle (weeks 24-29). The number of jobs won increased substantially. These were priced appropriately, some even at a premium for fast delivery, and were not underbid.



Summary: An important point to recognize is that demand rises and falls in any order driven business. Having an historical sense of this pattern can help you avoid overreacting and underbidding when business is slow. If you underbid RFQ's during downturns in demand, you run the risk of loading your shop with unprofitable work, and excluding the more profitable work that comes with an upswing in the demand cycle. In effect, you lose in two ways. One is the loss you incur because of winning unprofitable work. The other is the profitable work you have excluded because you have committed your capacity prematurely.

Installing and using a *Weekly Performance Report* will provide the perspective and information you need to make more informed decisions, and how to respond to conditions in the marketplace. It will also help you to identify areas for improvement internally in your business, and measure the results of continuous improvement initiatives.

Time From Quote to Order

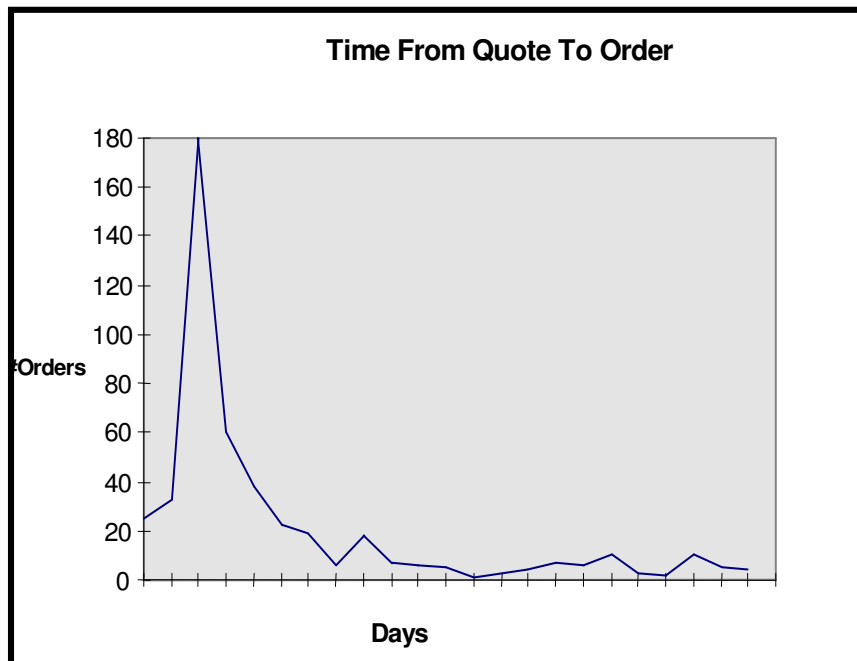


Readers of [Speed to Market: Lean Manufacturing for Job Shops](#) may recall we analyzed 1,794 RFQ's received by one company over the course of a year, and found that over 50% of orders (winning bids) were received within 3 days of communicating the bid to the customer.

We found that the typical bidding process (i.e., a customer prepares specifications and sends these to three or more potential suppliers in the form of an RFQ, and then waits to get all the bids back in order to make a rational comparison) was often circumvented when customers have an urgent need, and the normal process is too slow. This can result from a variety of

factors—somebody forgot to order parts, or a previous shipment was unusable, or a piece of critical equipment was out of order, or their inventory records were inaccurate, or one of their customers pushed a delivery date forward. Whatever the reason, customers have an urgent need for what you supply and the normal bidding process is bypassed.

As a result, we showed that getting your bid in front of a customer before your competitors gave you a huge sales advantage because the most important thing for that customer is not price, but getting what you supply in as soon as possible. There is no question that a shop that can convert an RFQ into a bid (and an order into a shipment) in the least amount of time will realize a valuable competitive advantage. Turning RFQ's around quickly was recognized as a prime opportunity area for

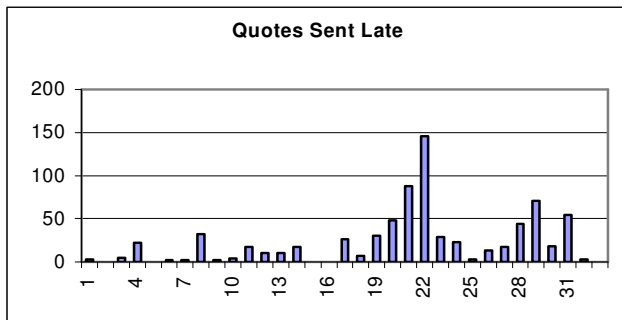
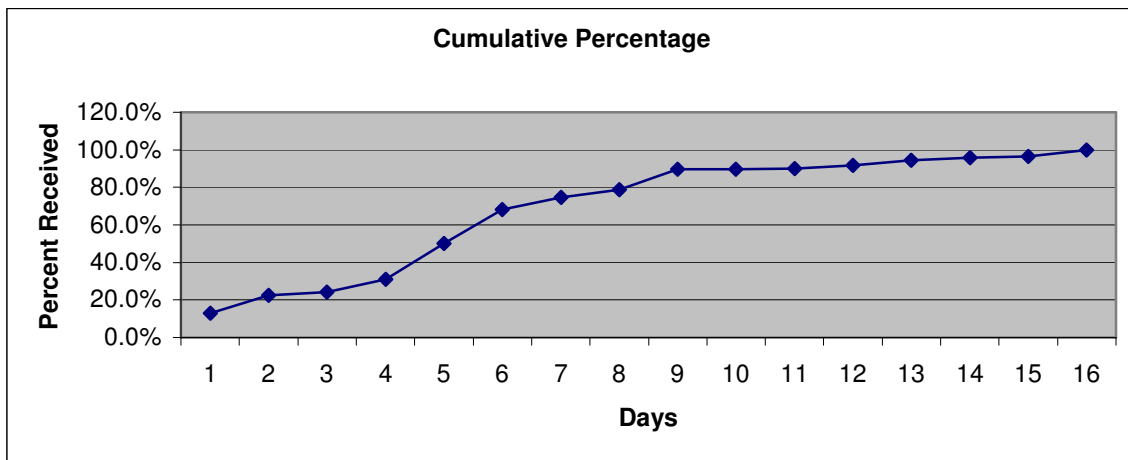


revenue enhancement and business development. We also pointed out that if you took too long to return quotes, you might as well not bother as half the time the work you were quoting on was already being processed in somebody else's shop. The following graph shows the results of that study where 50% of the winning quotes were received within 3 days.

We recently had an opportunity to conduct a similar study at one of our client's locations, a machine shop in Michigan. We developed a matrix for three months that showed the number of winning quotes, and the number of days between submitting the quote and receiving the order. This is the matrix.

Days Quote to Order	0	1	2	3	4	5	6	7	8	9	10	11-30	Total
Feb	24	10	2	7	18	24	15	2	8	0	1	5	123
March	5	6	1	3	2	9	0	8	13	0	0	3	58
April	1	6	1	6	24	9	0	0	4	0	0	0	51
Total	30	22	4	16	44	42	15	10	25	0	1	8	232
Cumulative	30	52	56	72	116	158	173	183	208	208	209	232	
Cum Percentage	12.9%	22.4%	24.1%	31.0%	50.0%	68.1%	74.6%	78.9%	89.7%	89.7%	90.1%	100.0%	

We then plotted the cumulative percentage of quotes won by the number of days it took to receive the order (we used calendar days, not working days). This is displayed in the following graph.

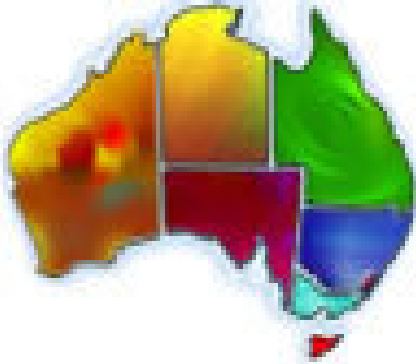


You can see that the response was very rapid. Fifty percent of the orders were received within 5 days, and 90% within 10 days of sending the quote. This told us two things. One, it reinforced the importance of turning RFQ's around quickly. There is no time to waste between receiving an RFQ, completing the quote, and getting this information back to the customer. In fact, measuring quotes sent late on the *Weekly Performance Report* is an important measure of performance.

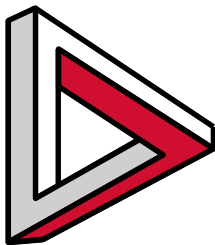
It also told us that quotes older than 10 days were likely not going to become orders. This information has implications for capacity planning, scheduling, and lead time calculations. We also had a much better estimate of our hit rate because we limited measurement to a two-week window. You might need a three week interval to know if you won the business, or a one week interval, and this may change during different times of the year. In some cases, for larger projects, many weeks can go by between submission of a quote and winning an order. Performing these calculations will provide this information.

Summary: This is an easy study to perform, and we would encourage you to determine the time from quote to order in your shop. It will give you a good idea of the time horizon in which to expect work after quoting, as well as when to write off RFQ's you have bid. This will eliminate false optimism regarding potential work on the horizon, as well as help you to plan more realistically.

News and Notes



We have been invited to participate in the International Speakers Program sponsored by the Tooling Industry Forum of Australia (TIFA) October 17 through 21, 2005 in Melbourne. We will deliver a series of workshops and joint presentations with Dr. Jay Baron, CEO of the [Center for Automotive Research](#) on the state of the tooling industry, and how lean manufacturing concepts and tools can be applied to job shops and custom manufacturing businesses. Having never been to Australia before, this is an exciting opportunity to see this part of the world, as well as to learn more about how changes in worldwide competition are affecting the tooling industry in Australia.



At Delta Dynamics, our aim is not to run your business, but to make your business run better. Our mission is to provide the perspective, expertise, and hands-on implementation support that will enable your company to enhance organization effectiveness, improve profitability, and build competitive strengths for the future. Our objective is to design and implement robust solutions that are self-sustaining. We do this by working with you in a co-venture relationship to design and implement customized programming that exactly fits your situation and business objectives. Our approach incorporates the complete process from initial assessment and concept development, through solution design, implementation, and results measurement. Our work is based on proven concepts and grounded in practical experience gained over many years working with some 500 clients in a variety of industries. We have developed a reputation for conceiving and implementing intelligent, cost effective solutions, as well as building more effective organizations positioned for profitable growth.

- We treat actual problems you are experiencing, not symptoms.
- We embed powerful tools for meaningful evaluation, continuous improvement, and management control in your organization.
- We educate and train people at all levels.
- We design and implement robust solutions that are self-sustaining.
- We create a feedback-based learning environment.
- We implement a systematic approach for identifying and reducing waste throughout your organization.