Bidding on a Contract
The concept of bidding on a government contract is deceptively simple. A contractor is looking for work. The government has a job that needs to be done, and issues a request for proposal (RFP) describing what they want. The contractor estimates what it will cost to perform the work, and submits a proposal, which includes a bid. If the government accepts the proposal and the price tag, the contractor wins the contract.

Increasing Your Chances
Bidding on a contract is serious business, with costs anywhere between $1 million and $5 million to bid on a $50 million or $100 million contract. A contractor needs to know everything possible about the program, and have high confidence that its bid will win. Because government contracting is competitive, each contractor looks for ways to make its bid stand out from others as more attractive—to increase its likelihood of winning. One approach is to underbid the contract—that is, bid less than the amount the contractor will actually cost to perform. To do this, the contractor must find out how much money the government has planned to spend on the work. This is sometimes accomplished through personal networking. In our example case, one PMO staffer said, “The retired acquisition program manager, who is now with the contractor, can call his buddy at the acquisition program, and find out the program duration and available funding.”

Also, contractors have access to descriptive summaries and can get a feel for the overall program; and they may know the value of related contracts. Budget information, including funding requirements and profiles, is also often included in the RFP.

Making an Underbid Pay Off
When a program is underbid and won, regardless of the intent, the program now has inadequate funding to complete the planned work. Naturally, this leads to shortened schedules or understaffing, which may cause schedule slips or pressure, and quality shortfalls. To pay for these, the contractor will want to find a way to “recover” the money that was “lost” from the underbid. This can be accomplished in various ways.

With cost-plus contracts, a contractor may be able to make the money up on the award fees and incentive fees. In a cost-plus contract environment, a schedule slip is tantamount to receiving additional funding. Alternatively, the use of engineering change proposals (ECPs) (work not included in the original contract) that feed off requirements scope creep can direct extra incremental revenue to the contractor.

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Another approach may be to make back the money lost on the development contract in the production contract—where a large portion of the funding resides. The government may be unhappy with these actions, but unless it is willing to expend great effort it is largely locked into continuing to work with the contractor to complete the contract.

“Bad programs are good business—at least for those willing to work that way.”
The Bigger Picture

Underbidding the Contract is an archetype whose behavior may occur across multiple programs. The use of this strategy evolves over time, and a reinforcing behavior sets in that increases the likelihood of underbidding. Contractors who underbid find that they can both win contracts and make the underbids actually work: when cost, schedule, and quality problems emerge later, the contractor receives additional funding and schedule relief to allow it to complete the job. This encourages other contractors to underbid the next program they compete for. This pattern can result in negative outcomes, such as confrontation, between the government program office and the contractor. However, the money that the contractor generates may be enough to compensate. In short, this may be a viable (if fundamentally flawed) business model—“bad programs are good business,” at least for firms willing to work that way. If underbidding is allowed to flourish, some competitors lose incentive to produce accurate bids, because by doing so they will not win contracts, and may ultimately go out of business.

It is difficult to attack underbidding by tightening ECPs. ECPs are commonplace due to changing environmental and technological factors, and aren’t likely to be viewed with suspicion, since the technology will advance and offer new potential capabilities that were previously unimagined. Stakeholders learn more about what the system as specified will do, versus what it could do—and invariably want it to do more.

The motivation underlying this archetype is varied. From an innocent perspective, if the program’s complexity is underestimated, then the cost and schedule will likely be underestimated, as there will be unforeseen technical problems. However, this doesn’t explain why underbidding and its attendant issues occur so frequently in acquisition programs—an observation which points to underbidding as an intentional response to the acquisition contracting process.

Breaking The Pattern

Breaking this pattern completely is not the responsibility of a single PMO, nor could it be solved by a single PMO. However, the PMO still needs to take action to try to prevent it from occurring, because the downstream effects of underbidding on their program will still be highly damaging.

To minimize the likelihood of an underbid, the PMO needs to do the following:

- Make bid price a lower priority consideration compared to the total value offered by the contractor’s proposal.

- Provide comprehensive technical detail in the RFP and conduct a thorough technical evaluation of the proposals to ensure that the contractor has a detailed understanding of the effort involved.

- Double check the given estimate against the work proposed.

- Be suspicious of a low bid during source selection based on the bid price compared to the independent government estimate (although it may be difficult to confirm until development).

If the PMO determines a substantial underbid has likely been made, the PMO needs to act to establish a new, more accurate baseline cost estimate, communicate this new reality to executive management, and choose a way to proceed. The options here can range from restructuring the contract (from the incentives to the production contracts) to terminating it altogether, and may depend in part on the degree of culpability that the PMO assigns to the contractor.

Acquisition Archetypes is an exploration of patterns of failure in software acquisition using systems thinking concepts. It is published by the Acquisition Support Program of the Software Engineering Institute.

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