

New study uncovers why there is so little competition in government procurement

October 15 2021



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Procurement accounts for more than 10 percent of U.S. federal government spending. Yet the extent of competition for a procurement contract is not very robust, with contracts rarely having many bids and

often having only one.

In a new study, researchers present a principal-agent model in which the [federal government](#) seeks contractors at a cost and negotiates contract terms with them. Using the model, the study suggests that the benefits of drawing additional bidders are significantly reduced because the [government agency](#) can extract informational rents from contractors.

Quantifying Factors That Determine the Extent of Competition

The study, by researchers at Carnegie Mellon University (CMU), appears in the Review of Economic Studies. "During [fiscal year](#) 2015, 44 percent of the U.S. government's procurement budget was paid to contracts drawing only one bid," says Karam Kang, Associate Professor of Economics at CMU's Tepper School of Business, who led the study.

Researchers sought to quantify the factors determining the extent of competition by developing, identifying, and estimating a procurement model. They did so by incorporating two institutional features of federal procurement that have never been studied together.

Federal regulations allow a procurement agency broad discretion to choose which contracted project will draw competitive bids. In the article, researchers outline how competition is determined and quantify preferences for the extent of competition. The final contract price can differ from and is often much larger than the initially agreed on price. Studying these two factors together is important, the authors note, because competitive behavior affects initial contract terms and, hence, the final contract price.

The Study's Model

The study's model envisions the procurement process as a two-stage noncooperative game, where the government first chooses the extent of competition among contractors, and then negotiates contract terms. The study also characterized optimal search and contracting with low- and high-cost bidders.

The study used data from the Federal Procurement Data System on procurement contracts in the information technology and telecommunications sectors from 2004 to 2015. Researchers studied contracts that specified fixed schedules and quantities, such as definitive contracts and purchase orders. They looked at approximately 7,000 contracts that cost the U.S. government \$2.5 billion (in 2010 dollars).

The study found that for more than two-thirds of the contracts, the government did not use full and open competition. Some of the reasons included set-asides due to statutory requirements and agencies' discretion (e.g., because of urgency).

Based on the researchers' model, the study concluded that for any given number of bidders, procurement agencies can extract more rent from a winning bidder when they negotiate than they would by running an auction. Agencies' ability to negotiate reduces their marginal value from promoting [competition](#) and attracting more bids. For example, the study estimates that stripping the agencies of their discretion in designing and negotiating contracts would more than double the average number of bids with very small decrease in the size of payment to winning contractors. Allowing procurement agencies to exercise some discretion to use their knowledge of the supply side can reduce procurement costs, even if they simultaneously engage in some rent-seeking behavior.

"We found that the agencies would increase their search intensity and enlarge the pool of bidders if there was greater heterogeneity in the privately-known seller cost components," explains Robert Miller,

Professor of Economics and Statistics at CMU's Tepper School of Business, who co-authored the study. "Our framework provides a template for analyzing other procurement auctions that attract only a modest number of bids."

More information: Karam Kang et al, Winning by Default: Why is There So Little Competition in Government Procurement?, *The Review of Economic Studies* (2021). [DOI: 10.1093/restud/rdab051](https://doi.org/10.1093/restud/rdab051)

Provided by Carnegie Mellon University

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