

The Impact of Scoring Auctions in Public Procurement

Auctions

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Abstract

Scoring auctions are commonly used to award contracts in public procurement because the government is concerned not only with procurement costs but also with the quality of works. We quantify the benefit of scoring auctions over standard (price-only) auctions through a structural estimation approach. We develop a structural model of a standard auction which allows us to simulate the outcome of a scoring auction without using scoring auctions data. We obtain a unique data set in standard auctions. The dataset includes the quality score of work in addition to bids and the number of bidders in each auction. The quality score consists of the information on the finished condition of work and work execution control. Using the structural model, we show that the quality of work improves by more than 10% and the welfare gain for the government is about 5 – 7% under scoring auctions. Moreover, we provide two sources of potential benefit of scoring auction to discuss when using scoring auctions is beneficial the most: the difference of the marginal costs of the cost functions to improve the quality of works and the uncertainty of the winning bidders' private information included in the cost functions from the government's perspective. We compare large-scale and complicated work with small-scale and simple work using bridge work and painting work as an example for each. We find that scoring auctions are more effective to bridge work compared with painting work.

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