

# Procurement Auctions with Pre-award Subcontracting

Jun NAKABAYASHI

January 19, 2010

## **Abstract**

To be the lowest bidders in procurement auctions, contractors commonly solicit subcontract bids at the bid preparation stage. A remarkable feature of the subcontract competition is that “winning is not everything”; the lowest subcontractor gets a job conditional on his contractor’s successful bid. This paper makes the first attempt to establish a model for such pre-award subcontract competitions included in procurement auctions. It is found that subcontractors strategically provide larger discounts on their bids in response to increasing competition among contractors, which results in an endogenous downward shift in the distribution of bidders’ private information in the downstream auction as the number of rivals increases or the reservation price drops. The process has a striking impact on the analysis of the optimal reservation price and the empirical identification of the bidder’s cost distribution in procurement auctions.