

# Small Business Set-asides in Procurement Auctions: An Empirical Analysis

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January 9, 2009

## Abstract

As part of public procurement, many governments adopt small business programs to provide contract opportunities for businesses often with preferences for firms operated by members of groups designated as disadvantaged. The redistribution arising from such programs, however, can introduce significant added costs to government procurement budgets. In this paper, I examine to what extent small business set-asides increase government procurement costs. The estimates employ data on Japanese public construction projects, where approximately half of the procurement budget is set-aside for small and medium enterprises (SMEs). Applying a positive relationship between profitability and firm size obtained by non-parametric estimation of asymmetric first-price auctions with affiliated private values, I conduct a counterfactual simulation to indicate that approximately 40 percent of SMEs would exit from the procurement market were set-asides to be removed. Surprisingly, the resulting lack of competition would actually increase government procurement costs, more than offsetting the resulting production cost inefficiency.

Keywords: procurement auctions, small business set-asides, nonparametric estimation

JEL classification: D44, H23, H57, L74

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