20 October 2010

The Honorable Olympia J. Snowe
Senate Committee on Finance
219 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Snowe:

We are economists, computer scientists, and operation researchers with expertise in the theory and practice of auctions.[1] We write to express our concerns with the Medicare Competitive Bidding Program for Durable Medical Equipment operated by the U.S. Department of Health and Human Services. We believe that competitive bidding can be an effective method of controlling Medicare costs without sacrificing quality. However, the current auction program has flaws that need to be fixed before it can achieve the objectives of low cost and high quality.

We applaud your leadership in insisting that the auction program maintain quality services for the millions of Medicare beneficiaries in rural America. The current program will not do so. Indeed, it will lead to a "race to the bottom" fostering fraud and corruption. Rural beneficiaries will find it especially difficult to receive quality services under the program.

On 14 October 2010, CMS acknowledged problems with the Round 1 bidding results in their explanation for delaying the announcement of winners: "We wanted to provide an update on all the current information we have at this time concerning the announcement of the final list of the contract suppliers. In testing a new program integrity tool on the list of potential competitive bidding suppliers, a number of red flags were raised that require further examination before CMS announces the final list." Unfortunately, while acknowledging the history of fraud under the program, CMS went on to announce: "We expect to move forward with the implementation of the program very soon, beginning with the announcement of the contract suppliers and continuing our aggressive education and outreach activities for beneficiaries and other stakeholders." This haste to implement results that raised many red flags with respect to program integrity seems contrary to the public interest and common sense.

Four main problems

The first problem is that the auction rules violate a basic principle of auction design: *bids must be binding commitments*. In the Medicare auction, bidders are not bound by their bids. Any auction winner can decline to sign a supply contract following the auction. This undermines the credibility of bids, and encourages low-ball bids in which the supplier acquires at no cost the option to sign a supply contract.

The second problem is a flawed pricing rule. As is standard in multi-unit procurement auctions, bids are sorted from lowest to highest, and winners are selected, lowest bid first, until the cumulative supply quantity equals the estimated demand. What is odd is that rather than paying winners the clearing price (the last-accepted bid), the auction pays winners the unweighted median among the winning bids. This is unique in our collective experience. The result is that fifty percent of the winning bidders are offered a

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[1] The views expressed here are our own and do not represent the views of any organization. For additional information please contact Peter Cramton, University of Maryland, pcramton@gmail.com.

contract price *less than* their bids. This median pricing rule further encourages low-ball bids, since a low bid guarantees winning, has a negligible effect on the price and gives the supplier a free option to sign a supply contract. Even if suppliers bid their true costs, up to one-half of the winning suppliers would reject the supply contract and the government would be left with insufficient supply. Others may accept the contract and cross-subsidize public patients with the revenue from private patients, or just take a loss. This pricing rule does not develop a sustainable competitive bidding process or healthy supplier pool.

The third problem arises from the use of composite bids, an average of a bidder's bids across many products weighted by government estimated demand. This provides strong incentives to distort bids away from costs—the problem of bid skewing. Bidders bid low on products where the government overestimated demand and high on products where the government underestimated demand. As a result, prices for individual products are not closely related to costs. Bid skewing is especially problematic in this setting, since the divergence between costs and prices likely will result in selective fulfillment of customer orders. Orders for low-priced products are apt to go unfilled.

The fourth problem is a lack of transparency. It is unclear how quantities associated with each bidder are determined. These quantities are set in a non-transparent way in advance of the auction. Bids from the last auction event were taken in November 2009, and now more than ten months later, we still do not know who won contracts. Both quality standards and performance obligations are unclear. This lack of transparency is unacceptable in a government auction and is in sharp contrast to well-run government auctions such as the Federal Communications Commission spectrum auctions.

This collection of problems suggests that the program over time may degenerate into a "race to the bottom" in which suppliers become increasingly unreliable, product and service quality deteriorates, and supply shortages become common. Contract enforcement would become increasingly difficult and fraud and abuse would grow.

Key features of a good auction design

Competitive bidding techniques have improved dramatically over the past twenty years and especially in recent years. Complex auctions like the Medicare competitive bidding program can be designed to achieve the objectives of low cost and high quality with little implementation risk. Successful government auctions emphasize transparency, good price and assignment discovery, and strategic simplicity. The result is sustainable long-term competition among suppliers which reduces costs while maintaining quality.

We recommend that the government fix the flaws in the current auction program and develop a new design that emphasizes the key features of successful designs. Implementation of the current design will result in a failed government program. There is no need for a bad outcome. With state-of-the-art auction methods and careful implementation, the auction program can succeed in reducing costs while maintaining quality—a win-win for both taxpayers and Medicare beneficiaries.

Respectfully submitted,
[The following are economists, computer scientists, and operation researchers with expertise in the

design of auctions and market mechanisms. Information on each of us, including our auction-related research, can be found with an Internet search of name and affiliation.]

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