

Appendix

SAA Auction Defaults: Our initial set of SAA4 auctions required that bidders be proactive in each round to maintain their eligibility. That is, if no bid was made, the *default* bid was zero demand for all items. The result of the default bid was to drop that bidder from the auction. In looking at the data, we identified a number of cases where bidders reduced their eligibility, or dropped out of the auction completely, well before prices reached their standalone values. To the extent that such behavior is confined to bidders with low potential profits, it would be predicted to reduce revenues but have little effect on efficiency. To the extent that it extends even to bidders with high potential profits, it could also reduce efficiency.

We conjectured that this pattern of bidding might be attributed to the complexity of the auction and the relatively short time bidders had to place a bid, combined with the default rule for maintaining eligibility. To test this and possibly correct the problem, we modified the auction procedures by changing the default. In the revised auction, the initial default bid was a bid for all items and the default bid in any round after the first was the bid placed in the previous period. In addition, bidders were notified when a new bid would reduce their eligibility and were required to confirm such a bid. These results are summarized below, with SAA4₀ denoting the auctions with the original default rule and SAA4₁ denoting the auctions with the revised default rule.

1. The change in the default bid had minimal impact on efficiency, with no significant differences in average efficiency between the SAA4 auctions where the default bid was zero on all items (SAA4₀) and the SAA4 auctions where the default bid was the bid in the previous round (SAA4₁). Efficiency was 86.2% (2.0%) for the SAA4₀ auctions versus 87.2% (2.0%) for the SAA4₁ auctions ($p > 0.10$) (with standard errors of the mean in parentheses).
2. Average auction revenue was substantially lower in the SAA4₀ auctions compared to the SAA4₁ auctions: 86.2% (1.5%) of minimum revenue in the core compared to 100.3% (2.1%) ($p < 0.01$).
3. Total profits were substantially higher in the SAA4₀ auctions, averaging 21.3% (2.2%) of total value at the efficient allocation versus 10.5% (2.8%) for the SAA4₁ auctions ($p < 0.01$).