# PROCURING DOLLAR AND TIME SAVINGS: A CASE STUDY OF THE IMPLEMENTATION OF REVERSE AUCTIONS IN THE FEDERAL GOVERNMENT

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## **ABSTRACT**

This study examines acquisition reforms recently undertaken by U.S. Customs and Border Protection (CBP), an integral part of the Department of Homeland Security (DHS). In response to budgetary and performance pressures, the agency has moved to make dynamic competitive bidding – through reverse auctions – a critical part of its procurement operations. This researcher analyzed CBP's procurement spending over the past four years, finding that the use of reverse auctions has produced tens of millions of dollars in savings for the agency and taxpayers, as well as creating significant process efficiencies for agency personnel. The study concludes with a call to action for public sector agency executives and procurement leaders to reexamine their own acquisition strategies – especially in light of the recent calls by the White House for procurement reform and increased competition – to maximize the efficiency of their operations through the strategic use of reverse auctions in their acquisition strategies.

## KEYWORDS

Reverse Auction, Auction, e-Procurement, Acquisition, Supply Chain, Federal Government, Public Sector, Competition, Cost Savings, Process Efficiencies, Purchasing, Procurement Strategy

## 1. Introduction

## 1.1. Reverse Auctions: Getting Beyond the Hype

In mid-September 2010, the White House added a great deal of specifics - and specific goals and priorities - to the previously-announced Accountable Government Initiative that seeks to cut operating costs by \$40 billion annually in FY2011. The Administration established "reforming contracting" as one of the six primary goals of this effort, and the Federal Chief Performance Officer specifically pinpointed competitive bidding as one of the primary ways that federal agencies will strive to achieve this goal, stating: "Agencies identified \$19 billion in savings from contracting for FY 2010, and we remain on track to achieve this savings through a combination of program terminations and reductions, new and stronger applications of strategic sourcing, and continued implementation of innovative procurement methods, *such as the use of web-based electronic reverse auctions*" (emphasis added) [1].

Yet, this focus on the role that competitive bidding can – and has – played in changing the way the federal government executes the over \$1 trillion in procurement spending for goods and services on an annual basis is not new. In fact a decade ago, then Speaker of the House, Newt Gingrich, predicted that one day the federal government will be "buying weapons systems via the Internet with an open bidding process that everyone can see" [2]. And back in 2000, this author produced one of the first academic research studies looking at the potential role that reverse auctions could play a pivotal role in saving money, increasing competition, and improving transparency in governmental procurement. Notably, that report, *The Auction Model: How the Public Sector Can Leverage the Power of E-Commerce through Dynamic Pricing*,

written for The PriceWaterhouseCoopers Endowment for the Business of Government (now the IBM Center for the Business of Government), contained the following prediction: "Adopting dynamic pricing concepts and the auction model in some form...may well become the "norm" in governmental operations" [3].

That view was among those at the time who foresaw much of what would transpire over the next decade, as the hype of the early e-business era (recall the dot-com frenzy) waned as business methodologies progressed through what Gartner has labeled the "hypecycle" of new technologies (see Figure 1 – The Wave of the Future: E-Business Becomes Business) [4].

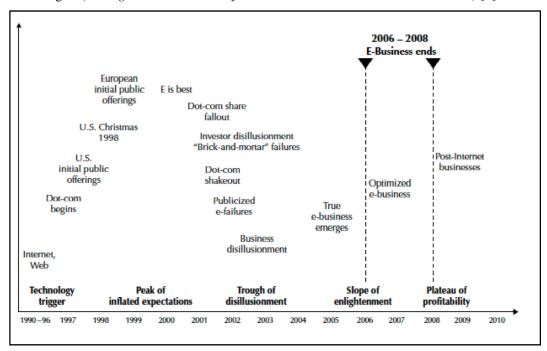


Figure 1. The wave of the future: E-Business becomes business

Writing in *Fortune* in 1999, Stewart Alsop predicted that: "The 'e' in e-business will soon be irrelevant.... In the next wave, in other words, businesses will make 'e' such a core part of their business that the difference between 'e' and everything else will be nonexistent. Or they won't be businesses anymore" [4]. Thus, what was largely theory and hype in 2000 is becoming actuality in 2010. Indeed, as we are in the maturity stage of the e-business era – the "plateau of profitability" as Gartner would characterize it – we are seeing many of the e-commerce concepts introduced by the new technology triggers of the late 1990's-early 2000's period become mainstream – simply the best way to do business – all business – across both the private and public sectors.

Now, a decade later, after many stops and starts along the way, we are seeing one of these newold technologies – reverse auctions – take center stage, moving to the forefront of procurement reform efforts at the highest level of the federal government. In Figure 2 (*Differentiating Forward vs. Reverse Auctions*), the difference between forward auctions (used for *selling* items) and reverse auctions (used for *procurement*) is depicted. The push for reverse auctions comes as public sector leaders seek to mirror the best practices of companies across the private sector and indeed, around the world. And now, with numerous federal agencies having engaged in competitive bidding as part of their overall procurement strategies, online reverse auctions are today viewed as a practical, proven vehicle through which government agencies can take



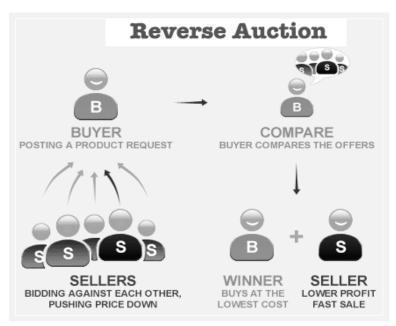


Figure 2. Differentiating forward vs. reverse auctions

strategic actions toward saving money, increasing competition, and improving transparency in their procurement operations.

The clearest driver for procurement reform and operational efficiency is the simple fact that, as with the general economy, the public sector is experiencing significant resource constraints. Today at all levels, government executives are being challenged on a daily basis to, as Ashton B. Carter, the Under Secretary of Defense for Acquisition, Technology, and Logistics, bluntly stated, "do more without more" [5] (quoted in Shalal-Esa, 2010, n.p.). Budgets are being tightened, positions are being eliminated (or simply not filled), and yet, across the board,

International Journal of Managing Value and Supply Chains (IJMVSC) Vol. 1, No. 2, December 2010 agencies and their personnel are being tasked with bigger and more important missions than ever before.

## 1.2. The Present Study

This study examines an area of acquisition reform recently undertaken by U.S. Customs and Border Protection (CBP), an integral part of the Department of Homeland Security (DHS). At a time when cross-border issues like immigration, illegal drug trafficking, and violence in neighboring Mexico spilling into the United States are challenging the agency to "do more without more," CBP has seen its role in safeguarding the nation's borders come to the forefront of national affairs. In response, CBP's leadership has taken significant steps to make sure that the agency is using taxpayer dollars spent on the resources needed to carry out its mission in the most productive and cost-effective means possible.

Under the leadership of John Ely, who serves as CBP's Executive Director of the Office of Procurement Operations, the agency has been engaged in a continuous improvement program, dubbed the "Acquisition Improvement Initiative," or AI<sup>2</sup>. Describing the program in his 2008 article published in *Contract Management*, Ely characterized the AI<sup>2</sup> as a means to enable CBP to indeed do more without more, stating that: "In effect, we were authorizing team members and management to look around, question the status quo, identify problems, and recommend and actively participate in the solutions. As a result, when we realized we would be unable to quickly expand operations to meet customer demand, we were able to shift our focus toward making existing operations more efficient" [6].

Through the AI<sup>2</sup> program over the past few years, CBP has reassessed and reinvented much of its contracting operation by implementing this collaborative team approach involving agency leadership and contracting professionals located throughout the country. As part of this change effort, the agency has directed a steadily-increasing percentage of its procurement spend to the online reverse auction marketplace. The effort has placed CBP's Procurement Directorate at the forefront of the agency's efforts to bring savings, competition, and transparency to the broader federal contracting community. As such, the agency and its leadership stand as early vanguards of what can and should be done across the federal government to make online reverse auctions work for the government, for agency personnel, and most importantly, the taxpayer.

This study examines the effective public-private business relationship that has been developed by CBP and Vienna, Virginia based FedBid, Inc., which operates the FedBid online reverse auction marketplace. The study focuses on the results of CBP's use of the online reverse auction marketplace as a major component of the agency's acquisition strategy, demonstrating the power of competitive bidding as an e-procurement tool. The study reviews CBP's procurement spending over the past four fiscal years, finding that top-level cost savings from CBP's use of the FedBid online marketplace mirrors results from across the federal sector where the online marketplace has been utilized in a similar manner, producing tens of millions of dollars in savings for the agency and taxpayers. In addition, this study shows that FedBid's unique competitive marketplace model and its ever-expanding network of sellers has enabled CBP buyers to achieve both significantly less reliance on sole sourced contracts and heightened participation of small and disadvantaged businesses.

Significantly, this study also provides a unique focus on the process efficiencies to be gained by directing increasing amounts of agency acquisition spending of all types – not just on commodities, but for a broad range of goods and services – to the online reverse auction marketplace. Although Figure 1 (*The Wave of the Future: E-Business Becomes Business*), shows that the current mainstreaming of the online reverse auction marketplace in the federal procurement arena is not to be unexpected, there is an identifiable overriding reason for its current resurgence. In short, the online marketplace model has done for organizational purchasing what Amazon® did for online consumer shopping – introducing significant process

efficiencies in a user-friendly, 24/7, full-service operation – but with the additional benefits of absolute flexibility and minimal risk.

What we have found by surveying/interviewing CBP's contracting staff is that the marketplace model has provided important, quantifiable gains in a number of process areas, including:

- Integrating reverse auctions as a preferred way of conducting acquisitions
- Dramatically shortening procurement cycle times
- Enabling better, higher-order use of procurement professionals' time
- Fostering improved service for CBP's internal customers.

In time, these process efficiencies will prove significant for federal agencies, as increasing utilization of the FedBid online marketplace will enable them to better pursue their mission and face the new normal to "do more without more."

In short, it is hoped that this article will serve as a call to action for agency executives and procurement leaders across the federal sector to reexamine their own acquisition strategies – especially in light of the recent calls by the White House for procurement reform and increased competition, including through reverse auctions – and realize the possibilities to be gained by their own agencies by putting the power of the competitive marketplace to work for their agency, their acquisition staff, and most importantly, for the American public.

## 2. METHODOLOGY

#### 2.1. Data

Three forms of data were utilized in putting together this analysis. First, CBP and FedBid, Inc. provided the researcher with complete access to CBP's spend data on transactions occurring through the FedBid online marketplace from FY2005 to the present. Purchasing Data for CBP was examined from FY 2007 through FY2010 (data for FY2010 is non-normalized data, and subject to revision). The researcher also was provided access to CBP's procurement staff to conduct a survey focused on their use of the FedBid online marketplace and their opinions on the use of this new method versus traditional federal procurement processes. Finally, the researcher conducted in-depth interviews with members of the leadership team in CBP's Procurement Directorate, including Mr. John Ely, CBP's Executive Director of Procurement.

## 2.2. Survey

A survey was conducted with members of the CBP Procurement Directorate. The first-round survey was conducted in early July 2010, with a follow-up survey for all participants in August 2010. The survey was conducted via a web-based protocol.

The survey group of 37 individuals was selected as being a representative sample of CBP's total staff of just-under 200 full-time contracting personnel nationwide. The survey group represented a wide mix of CBP staff with a broad range of experience in the contracting area and with varying degrees of utilization of the FedBid online marketplace as an e-procurement tool.

## 2.3. Demographics

The demographics of the survey group were found to be representative of the overall contracting workforce at CBP. The survey group was slightly more male (54.1%) than female (45.9%), with an average age of 42.86. As shown in Table 1 (*Educational Attainment of Survey Respondents*) on the next page, the survey respondents were a well-educated group, all being high school graduates, with more than 80% holding a college or graduate degree.

Table 1. Ed	lucational	attainment	of survey	respondents.
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Highest Education Level Attained	Percent
Some College	10.80%
Associate's Degree	5.40%
Bachelor's Degree	64.90%
Graduate Degree	18.90%

As can be seen in Figure 3 (Job Title of Survey Participants), below, the survey participants were largely contracting specialists and contracting officers. As such, their average GS Level was that of a GS 12, with an average annual salary of \$76,424. They had substantial contracting and federal government experience, with 60% having five or more years experience working in CBP's procurement operations and almost half having 20+ years in total of work experience in the federal sector (including military service).

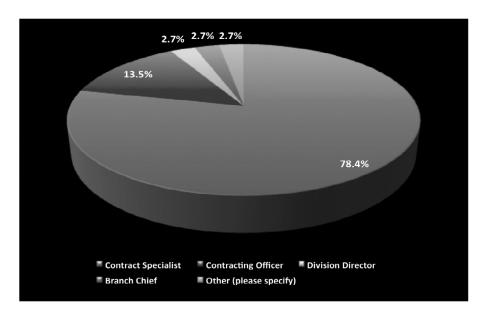


Figure 3. Job title of survey participants

One of the unique aspects of CBP's Procurement Directorate is the decentralized nature of their purchasing operation, with major procurement centers housed in CBP regional offices around the country, including Indianapolis, San Diego, and El Paso. This web-based survey was able to gain input from CBP staffers who utilize the FedBid online marketplace from remote locations, as over half of the respondents were located outside of the Washington, DC Metro Area.

## 2.4. Experience Working with the FedBid Online Marketplace

In regards to the survey group's use of FedBid, there was an intentional choice to try and capture not just the "heavy users" of the online marketplace, but rather, a distribution that represented the wider experience across the CBP Procurement Directorate. As such, the survey group was selected by an expert panel to be representative of the CBP contracting staff as a whole in regards to their utilization of the online reverse auction marketplace. These intentions were borne out in the end, as the survey respondents were asked: "How many buys have you competed through the FedBid online marketplace?" Their responses are shown in Figure 4 (Number of Buys Competed by Survey Participants).

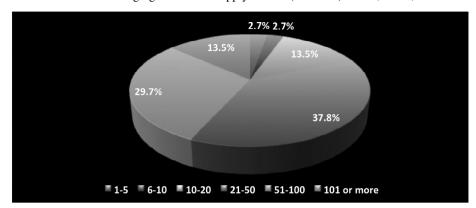


Figure 4. Number of buys competed by survey participants

In order for any modification to business processes to have a chance to succeed, organizational leadership must be willing and able to implement an effective change management process. CBP leadership effectively incorporated its contracting professionals in that change management process and was able to implement meaningful reform in the way its business is performed, including through expanded use of the online reverse auction marketplace, to maximize the gains for all involved. The success of CBP's change management effort was readily apparent in the high level of buy-in communicated by CBP procurement staffers regarding their use of the online reverse auction marketplace. When asked to write about the impact of using FedBid on their operations and on their own jobs in an open-ended manner, the surveyed contracting professionals provided numerous positive responses, including:

- "It's very user friendly"
- "It saves us time and helps us do our job a little easier."
- "Very helpful, a big time saver."
- "I like the FedBid templates and ease of use."
- "Best tool implemented since I've worked here."
- "Very efficient system. People are very helpful and friendly. Good customer service."
- "Fedbid stops all the goofy questions or a good bit of them from vendors that basically waste our time."
- "I find that FedBid is a very useful tool and helps save time and money."
- "I appreciate that a lot of the information required for my procurement file is captured and that FedBid is an excellent platform for maximizing the use of public's money."
- "The more I use Fedbid the more comfortable I've become with the system. I like using Fedbid because it saves me time with multiple solicitations, and allows me to focus on other work while the solicitations are running their course."
- "I save the taxpayer's money just about every time I use FedBid, not only through the bidding process, but additionally through the administrative costs that FedBid saves by shouldering a large percentage of the simplified/repetitive acquisitions and clearing up space for the contracting professionals to work on complex issues and the actual management of contracts."
- "In general, this is a great tool that helps the specialists save significant taxpayer dollars so in my opinion, that is a great success."

The survey respondents were asked to compare their use of the online reverse auction marketplace versus traditional federal procurement methods on a variety of criteria. Overall, they ranked FedBid very highly versus the institutionalized procurement methods on all counts.

This is shown in Table 2 (User Assessment of FedBid Online Marketplace vs. Traditional Federal Procurement Processes).

Table 2. User Assessment of FedBid Online Marketplace vs.
Traditional Federal Procurement Processes.

Criteria	FedBid	Traditional
Providing ease of use	96.88%	37.50%
Maximizing efficiency	96.43%	40.74%
Maximizing transparency	78.57%	46.43%
Providing complete information to potential	85.71%	60.71%
sellers		
Managing questions from potential sellers	96.55%	41.38%
Decreasing documentation workload	75.86%	17.24%
Ensuring fair and open competition	93.10%	65.52%
Maximizing notification and competition	86.21%	48.28%
Securing best available market pricing	89.66%	51.72%
Reaching small, disadvantaged, and minority-	86.21%	58.62%
owned businesses		
Enabling small, disadvantaged, and minority-	86.21%	55.17%
owned business to effectively compete		
Minimizing time from inception to execution	96.55%	34.48%
Providing auditability	89.66%	51.72%
Ensuring compliance with FAR and other	89.66%	58.62%
applicable regulations		
Providing best-value for taxpayers	93.10%	65.52%

The CBP staffers who participated in the survey were also asked about their overall impression of using the FedBid online marketplace. As can be seen in Table 3 (CBP Staff Experience Using the FedBid Online Marketplace), the respondents overwhelmingly reported that FedBid had good systems, training, and personnel in place to assist them in their contracting efforts. And these positive ratings remained consistent regardless of whether the contracting staff was located at CBP headquarters, with access to onsite support, or at one of the agency's remote locations, with access to remote support via email, chat, or phone.

Table 3. CBP Staff Experience Using the FedBid Online Marketplace.

Criteria	Rated Favourably
Helpfulness of FedBid personnel	97.20%
Knowledge of FedBid personnel	94.50%
Availability and responsiveness of FedBid	100.00%
personnel	
Ease of use of the online marketplace	94.50%
Functionality of the online marketplace	94.50%
Training received to use the online marketplace	80.50%
Overall experience using the online marketplace	88.90%

In the end, CBP's contracting staff was enthusiastic in their recommendation that others follow their agency's lead in using the online reverse auction marketplace for procurement across the federal government. When asked if they would recommend the use of FedBid to their acquisition peers, over 90% of those procurement professionals responded affirmatively.

# 2.5. Research Questions

The researcher combined the survey of CBP personnel and CBP procurement spending data for the four fiscal years under review (FY2007-FY2010) to analyze the research questions under review. These were:

- 1. How did the use of reverse auctions through the FedBid online marketplace impact the ability of CBP procurement professionals to better carry-out their roles?
- 2. To what degree did the use of reverse auctions through the FedBid online marketplace translate into improved competition and verifiable savings for CBP?

# 3. ANALYSIS: PART I – SAVINGS THROUGH PROCESS IMPROVEMENT

## 3.1. Overview

One of the primary goals of this research effort was to go beyond looking at the "bottom-line" savings and procurement metrics to review and analyze savings attributable to process improvements resulting from the use of reverse auctions. Based on anecdotal evidence, this is one of the often-overlooked benefits of using the FedBid online marketplace. For while typical analysis of reverse auctions rightly concentrates on the "first-order" savings - the actual bottom-line savings achieved through reverse auctions (and as documented in Part II of the analysis, this number is in the tens of millions of dollars thus far for CBP), there are added, "second-order" savings springing from the process improvements in the acquisition process inherent in the online marketplace model. These savings, though difficult to quantify, can be considerable – and they need to be taken into account to grasp the whole story on the benefits of greater use of efficient competitive bidding processes in procurement operations. Thus, while we will look at the hard dollar savings CBP achieved through the use of online reverse auctioning in the next section, we will first examine the process savings from its use of the FedBid online marketplace model in this section of the report.

The analysis identified a key difference between the FedBid online marketplace and other available reverse auction tools, which created a unique ability for FedBid to impact efficiency. In short, when an acquisition professional uses the FedBid online marketplace, they are able to access an active, dynamic, fully managed marketplace. In the FedBid model, reverse auctions are not just an add-on option as part of an e-procurement suite that may - or may not - be used on a case-by-case basis. Neither are they treated as a stand-alone, self-service event that must be uniquely created each time an auction is chosen as the procurement vehicle. Instead, FedBid enables an agency's acquisition staff to participate with thousands of other buyers in a managed marketplace that leverages a constantly expanding 24x7 competitive environment. Instead of having to use valuable time to execute all of the steps necessary to recruit and target interested suppliers and organize a unique reverse auction event on each occasion, contracting officers and specialists can simply post their buy requirements on FedBid. The network effect created among buyers and sellers ensures consistent seller engagement because of the opportunity they have to easily, quickly, and affordably access significant federal buying opportunities in their area. In turn, buyers experience increased price-based seller competition for a broad range of requirements, including not just commodities, but all kinds of goods and services ranging in price from \$3,000 (commercial buyers have used it for less) to millions of dollars.

One of the criticisms of traditional reverse auctions is that the only goal of the exercise is to squeeze dollars out of suppliers [7]. However, research has shown that the competition and opportunity afforded by reverse auctions can benefit both the buying organization and sellers [8, 9]. And for reverse auctions to work as a part of an organization's acquisition strategy over the

long-term, it is critical that there be tangible benefits for both sides – sellers and buyers – of the procurement equation. Indeed, as shown in Table 4 (*Benefits of FedBid Model for Federal Buyers and Sellers*), the FedBid online marketplace optimizes benefits for both parties in the federal acquisition equation in a model that emphasizes not just fair and open competition, but promotes transparency and opportunity while minimizing risk and outlays by both parties.

Table 4. Benefits of FedBid model for federal buyers and sellers.

Buyer Benefits	Seller Benefits		
Time Savings	Time Savings		
Marketplace functionality automates	Readily accessible marketplace model		
notification, competition and	makes it easy for sellers to compete for		
documentation; employs intuitive user	billions of dollars worth of business from		
interface; and provides procurement	thousands of buyers through a single,		
system interface capability, freeing up	user-friendly, web-based portal.		
buyer resources for complex			
procurements.			
Budget Savings	Improved Access to Opportunities		
Reverse auction process reduces agency	The online marketplace centralizes		
costs and provides guaranteed results with	information and, using seller-defined		
no upfront investment or financial outlay	criteria, proactively contacts sellers when		
from the buyer.	opportunities arise.		
Improved Procurement	Reduced Costs per Sale		
Documentation	Readily available, detailed buyer		
Automated documentation provides	requirements enable sellers to use		
complete, detailed information for each	minimal resources to pursue each		
procurement, including all Sellers	opportunity and compete for business.		
notified, and all Bids or No-Bids received.			
<ul> <li>Increased Small Business</li> </ul>	An Improved Competitive Process		
Utilization	The seller-neutral marketplace facilitates		
Improved opportunity access for all	a regulatory-compliant, fair, and open		
qualified sellers has enabled buyers to	procurement process that levels the		
award approximately 80% of all dollars to	competition playing field for sellers of all		
small businesses.	sizes.		
• Improved Regulatory Compliance	• Improved Solicitation Response		
The online marketplace delivers	Intuitive user interface and full-service		
regulatory compliance, price	helpdesk make it easier for sellers to		
reasonableness, and process transparency	submit accurate, detailed bids that are		
and includes specific compliancy features,	responsive to buyer requirements.		
such as FBO.gov feeds and Recovery Act			
functionality.			

# 3.2. Findings

The first research question under review in this study was:

1. How did the use of reverse auctions through the FedBid online marketplace impact the ability of CBP procurement professionals to better carry out their roles?

In order to gain insight into the documentable process savings arising from the use of the FedBid online marketplace in the field, the researcher gathered an expert panel, consisting of the senior leadership of CBP's Procurement Directorate. Together, we developed a list of all the necessary tasks that contracting officers and specialists need to carry out an acquisition – from the determination of what the buyer needs at the inception of the procurement through the complete cycle – through handling post-award inquiries and any bid protests that might occur. This list then became the focus of our efforts to examine the process improvements that can be accomplished through using the FedBid model over traditional procurement practices.

## 3.2.1. Time Savings

In the survey, the participating contracting professionals were first asked to review the task list and rate whether they believed they were spending less time conducting each phase in the procurement process when using the FedBid online marketplace versus the time they spent carrying-out the step in a traditional procurement environment. As can be seen in Table 5 (*Time Savings: Steps in the Procurement Process*), the survey respondents indicated that using FedBid saved them time across the entire procurement operation. In most of these areas, a vast majority of the survey participants indicated that they were spending less time carrying out these tasks.

Then, the survey respondents were asked to reflect on their own experience and estimate the amount of time they would spend – on average – on each of these tasks in the procurement process, first when conducting a "traditional" procurement and then, when conducting a procurement through the FedBid online marketplace. The contracting officers and specialists taking part in this study indicated that the use of the reverse auction-based procurement method took far less time than using traditional federal procurement techniques. And in many instances, as can be seen in Table 6 (*Time Savings: Steps in the Procurement Process That Now Take Less than an Hour*), the time requirements for each step in the acquisition process was reduced from multiple hours – even multiple days - to less than an hour. Thus, utilizing the FedBid online marketplace meant that overall, CBP's procurement professionals took far less time to execute procurements than in a traditional procurement process, all with full compliance to federal contracting laws and procedures incorporated into the competition process.

## 3.2.2. More Effective Time Utilization

Again, working with the same expert panel, the researcher developed a list of activities of how contracting staff would be able to use the time that was saved through the use of the FedBid system. In the survey, the participants were asked if they have indeed found that since using the online marketplace, they had more time available for various activities that would aid customers, suppliers, and even themselves.

As can be seen in Table 7 (*Impact on Time for the Procurement Professional*), on the next page, in all cases, the contracting personnel reported that since beginning to use the online marketplace, they did in fact have more time for these outreach and support efforts. Additionally, the surveyed CBP staff members reported that not only did their use of FedBid create more time for them to engage in these activities, but also over three-quarters of the respondents believed that their customers receive a higher level of service from them due to the time that had been freed-up through the use of the FedBid online marketplace. Thus, the use of the online reverse auction marketplace based procurement method enables CBP's procurement

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Table 5. Time Savings: Steps in the Procurement Process.

Task	Less Time	Same Amount of Time
Determining buyer needs	34.30%	62.90%
Specifying the items/services to be procured	42.80%	54.30%
Soliciting qualified sellers based on specifications and designated acquisition scenario	80.00%	17.10%
Amending specifications and reissuing solicitation to qualified sellers	82.90%	11.40%
Revising acquisition scenario and reissuing solicitation to qualified sellers	80.00%	11.40%
Fielding, managing, and responding to seller questions	80.00%	17.10%
Collecting and organizing bids	91.40%	5.70%
Evaluating bids	77.10%	17.10%
Performing due diligence	54.30%	42.90%
Making award decisions	62.80%	34.30%
Making award notification to both successful and unsuccessful bidders	71.40%	25.70%
Documenting the procurement process	71.40%	25.70%
Handling post-award inquiries	57.20%	34.30%
Resolving bid protest actions	22.90%	37.10%
Ensuring compliance with FAR and other applicable regulations	51.40%	42.90%

Table 6. Time Savings: Steps in the Procurement Process That Now Take Less than an Hour.

Task	FedBid	Traditional
Determining buyer needs	48.70%	34.30%
Specifying the items/services to be procured	51.50%	25.80%
Soliciting qualified sellers based on specifications and		
designated acquisition scenario	77.10%	17.20%
Amending specifications and reissuing solicitation to		
qualified sellers	74.30%	17.30%
Revising acquisition scenario and reissuing solicitation to		
qualified sellers	74.30%	25.80%
Fielding, managing, and responding to seller questions	71.40%	28.60%
Collecting and organizing bids	68.50%	22.90%
Evaluating bids	65.70%	17.20%
Performing due diligence	54.30%	20.00%
Making award decisions	65.70%	28.70%
Making award notification to both successful and		
unsuccessful bidders	68.60%	28.60%
Documenting the procurement process	60.00%	22.90%
Handling post-award inquiries	68.60%	31.40%
Resolving bid protest actions	34.30%	14.30%
Ensuring compliance with FAR and other applicable		
regulations	63.00%	25.80%

Activity	More	Same	Less
Working/communicating with	51.50%	42.90%	5.70%
customers			
Working/communicating with	82.90%	17.10%	0.00%
sellers			
Focusing on complex	48.50%	37.10%	14.30%
requirements/contracts			
Providing pre-award support	57.20%	40.00%	2.90%
Providing post-award support	65.70%	25.70%	8.60%
Handling delivery issues and/or	45.70%	48.60%	5.80%
contract administration issues			
Providing other administrative	34.30%	60.00%	5.70%
support			
Engaging in professional	34.30%	57.10%	8.60%

Table 7. Impact on Time for the Procurement Professional.

professionals to engage in more "higher level" tasks on the job and spend less time doing some of the routine tasks associated with standard procurement protocols. While not able to be tested here in this non-longitudinal study, the results certainly highlight the potential for greater use of the e-procurement functionality and support systems present in the FedBid online marketplace to produce increased job satisfaction among agency contracting professionals, which, in turn, could enhance the ability of the agency to retain and to attract these individuals and the important skills – and knowledge – they possess.

#### **3.2.3.** The Value Equation

development activities

So, what is the cost impact of these savings of hours, minutes, even days in procurement cycle times and in the level of involvement that CBP staff have in the acquisition process? One will recall from the earlier section on the demographics of the contracting officers and specialists that comprised the survey group that the average salary of the respondents was \$76,424. The agency measures total employee compensation as being comprised of 78% salaries and 22% benefits. Thus, when factoring in benefits and fringe costs at the agency rate, the average compensation of these GS12-level procurement professionals approaches approximately one hundred thousand dollars annually. Therefore, for each hour of direct involvement in the procurement process saved, the agency experiences savings of just over \$48 in personnel costs, based on 2080 work hours in a year.

As Risher (2010) discussed in a recent article in *Government Executive*, total compensation costs for federal employees is a subject which is actually open to interpretation, with some estimates from watchdog and think tank groups placing the actual cost figures as high as 51% more than actual salary figures. Still, in the present analysis, we used this agency-provided total compensation figure (28.2%) for our estimates of the value equation for agency use of reverse auctions. As this could be seen as a conservative cost estimate, the true cost impact could be significantly more than stated here.

While there have been no reductions in agency procurement staffing levels since the FedBid online marketplace was initially integrated into CBP's procurement process, the value to the agency – and to its customers and ultimately, to the taxpayers – is still very much profound by any estimate. Shifting more procurement spend to the FedBid online marketplace means that these \$48 an hour professionals are spending less time doing low-value administrative tasks

that, though essential to the procurement process, are easily absorbed by the automation and services of the online marketplace. This gives these procurement professionals the ability to spend their time on more skilled tasks, including negotiating complex procurements, working with end-users to create more accurate requirements, and performing more detailed due diligence prior to award.

In the big picture, with the number of reverse auction buys conducted through FedBid by CBP, this adds up to a considerable value-shift from routine to higher-order tasks for these procurement professionals. Based on FY2009 activity levels (with 1670 reverse auctions conducted in that year), the value from saving just one hour on the average procurement process translates into a value in excess of \$80,000. Considering the time savings the CBP contracting professionals reported, a typical FedBid procurement could save an average of 8 hours of staff time, resulting in \$640,000 in annual value that could be applied to higher-order tasks – working on complex procurements, communicating with clients, recruiting potential suppliers, performing due diligence, etc. At that level, the agency is experiencing the equivalent of adding nearly seven additional full time employees, but without the associated training, administrative and management costs. As more agency procurement activities are directed through the FedBid online marketplace, the agency can experience corresponding proportional growth in benefits.

Assuming that CBP were able to direct an increasing amount of its overall acquisition spending through the FedBid online marketplace, one can see that the time savings rise as a higher number of buys – representing a greater percentage of the agency's spending – are conducted through the online marketplace. At present procurement volumes (almost 1300 annual buys for FY 2010), this would mean a "worst case" scenario of just under \$62,400 in savings, based on saving one hour per procurement) and a "best case" scenario savings of up to a half a million dollars annually – or the equivalent of five additional full time employees for CBP (based on saving up to 8 hours per procurement). This valuable staff time saved would enable the agency to not just provide better client services, but to potentially accomplish far more procurement volume with the same – or less – staff than at present as more and more routine tasks are accomplished through use of the FedBid online marketplace.

And, as will be discussed in the next section, the greater the percentage of spending competed through the online reverse auction marketplace, the higher the potential "hard dollar" savings the agency can accomplish. This means that the "win" – not just for procurement executives, but for procurement staff - is that they have the ability to use this newfound time in more productive and innovative ways – enabling the procurement operation to be of greater value in support for the agency's mission in these critical times. While not necessarily a "bottom-line" savings, the value – the "win" – for the agency, for its procurement operations and its staff, and ultimately, for the taxpayer – is the time freed-up to be repurposed in a better way.

## 3.3. Conclusion

The takeaway from the time-efficiency aspects of this study is that the FedBid online marketplace offers the possibility for agencies such as CBP to achieve considerable cost savings, efficiency gains, and procurement cycle time reductions. While this is indeed a reverse auction-centered methodology, the use of the online reverse auction marketplace by CBP affords the agency the capability to indeed do more for its customers without more. Like all federal agencies, CBP has been challenged during the period under review for this study (FY2007 to present) by not just budget pressures which hold back staffing, but the aging procurement workforce and the spate of retirements of these procurement professionals. Thus, shifting more procurements to the online reverse auction marketplace-based environment provides the agency with the ability to not just provide the same - but in fact better - service to its internal customers and to better deal with an enlarged supplier base, all the while producing

International Journal of Managing Value and Supply Chains (IJMVSC) Vol. 1, No. 2, December 2010 savings of taxpayer dollars through better procurements at better prices by making use of competitive bidding.

# 4. Analysis: Part II – Savings Through Competition

## 4.1. Overview of Procurement Spend through Reverse Auctions

Our analysis of procurements made by the CBP over recent fiscal years shows that the agency has made increasing – and increasingly effective - utilization of the online reverse auction marketplace over time. As can be seen in Figure 5 (*Total Annual Spend Volume through the Online Marketplace {FY2007-FY2010}*), below, the dollar amount of procurement spending being conducted by CBP through the FedBid online marketplace has significantly increased over the past three years, a trend that was interrupted in FY2010 due to procurement budget reductions for the agency, coming as a result of decreased operational funding. According to leaders at the agency, this funding trend is expected to continue for at least the next two fiscal years, heightening the need to maximize the effectiveness and utility of its acquisition operations. To date, the total amount of procurement that CBP has conducted through the FedBid online marketplace presently today stands at over half a billion dollars.

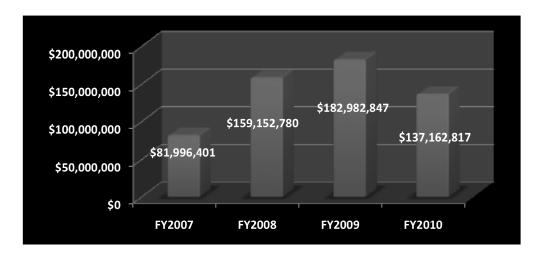


Figure 5. Total Annual Spend Volume through the Online Marketplace (FY2007-FY2010)

As more agency procurements have been shifted to the competitive environment of the online marketplace, the savings of taxpayer dollars achieved though the cooperative efforts of CBP and FedBid have grown significantly. As can be seen in Figure 6 (*Total Savings Achieved by CBP through Use of the Online Marketplace {FY2007-FY2010}*), the annual savings achieved through this partnership doubled after 2 years – from over \$9 million in FY2007 to in excess of \$19 million in FY 2009 and then, even though volume decreased in FY10 due to budget constraints, overall savings dollars for that year remained substantial at over \$16 million.

# 4.2. A Look Behind the Savings

In both the interviews and the surveys conducted for this study, CBP personnel consistently stated two primary reasons for success of the online marketplace initiative. First, momentum for changing the way procurements had been conducted increased because acquisition staff experienced the ease of use of the FedBid online marketplace, and after initial use, they saw the benefits springing from using reverse auctions as a "first choice" in their agency's procurement operations. The data from CBP's spending through the FedBid online marketplace bear this out and show just how FedBid helped them to achieve these bottom-line savings.

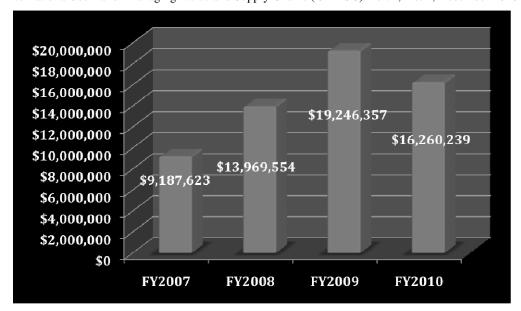


Figure 6. Total Savings Achieved by CBP through Use of the Online Marketplace (FY2007-FY2010)

# **4.2.1.** A Simple Matter of Mathematics

Some reverse auction critics have argued that the procurement method's "fatal flaw" is that it represents nothing more than a "supplier squeeze," and that while the buying organization may be able to exert the power over suppliers to have competition produce impressive savings initially, the gains will not be sustainable year-over-year. This position, espoused by some reverse auction critics, has been contradicted by the experience of leading private and public sector organizations, which have used reverse auctions to produce new levels of competition over successive years.

The four years of procurement data from CBP analyzed in the present research clearly reinforces the position that consistent competition works, as demonstrated by the summary data shown in Figure 7 (Savings Percentage Achieved by CBP through Use of the Online Marketplace {FY2007-FY2010}), below. The growing experience of CBP acquisition staffers employing the online marketplace, combined with the continuing support of FedBid market specialists and advisors, has enabled CBP to increase and sustain savings on a percentage basis in the four years it has employed the FedBid online marketplace as a major part of its acquisition strategy. Interestingly, many of the buys conducted through FedBid were for products purchased under the DHS department-wide FirstSource contract, which was awarded to eleven small businesses for delivery of IT products. Although FirstSource contract pricing is most favored customer pricing, CBP and other DHS buyers are able to utilize FedBid as a "second-level competition tool" and consistently achieve savings of approximately ten percent [10].

With an average cost savings achieved through competitive bidding of 10.31%, the more purchasing spend that is directed through competitive bidding, the higher the savings potential will be. Indeed, as shown in Figure 8 (*Number of Reverse Auction Buys Executed by CBP (FY2007-2010)*), CBP contracting personnel chose to use the online reverse auction marketplace with increasing frequency over the past four years, a trend that was interrupted in FY2010 due to procurement budget reductions for the agency, coming as a result of decreased

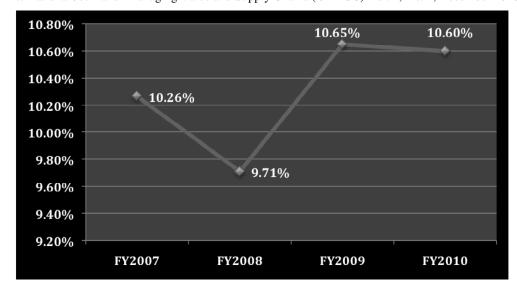


Figure 7. Savings Percentage Achieved by CBP through Use of the Online Marketplace (FY2007-FY2010)

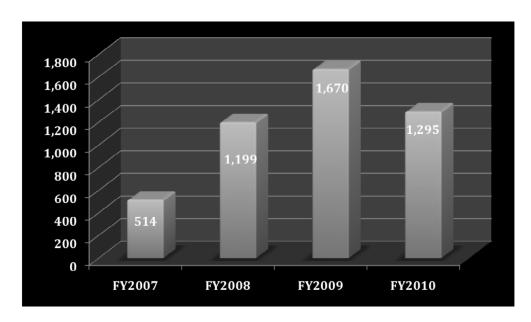


Figure 8. Number of Reverse Auction Buys Executed by CBP (FY2007-2010)

operational funding. According to leaders at the agency, this funding trend is expected to continue for at least the next two fiscal years, heightening the need to maximize the effectiveness and utility of its acquisition operations.

A study of FedBid's online marketplace in operation shows that the size of the procurement does not reduce the potential savings that can be garnered. Thus, greater utilization of the online marketplace translates into more opportunities to produce savings, regardless of whether it involves procurements for several thousand or several million dollars. And yet, larger procurements can translate into larger dollar savings. Indeed, CBP procurement specialists have begun to make use of the FedBid online marketplace for some of their agency's largest

purchases, making multi-million dollar purchases that have produced multi-million dollar savings. Yet, as demonstrated in Figure 9 (Wider Utilization Means Increasing Savings for the Agency, Even While the Average Dollar Volume of Events Declines), as utilization of the online reverse auction marketplace grew among the agency's contracting staff to encompass more and varied dollar amount procurements, the average dollar volume for individual events declined. You can see that even as the average size of each procurement has steadily declined, the total amount of savings for the agency (as shown previously in Figure 6 - Total Savings Achieved by CBP through Use of the FedBid Online Marketplace) has grown significantly – surpassing over \$55 million dollars to date.

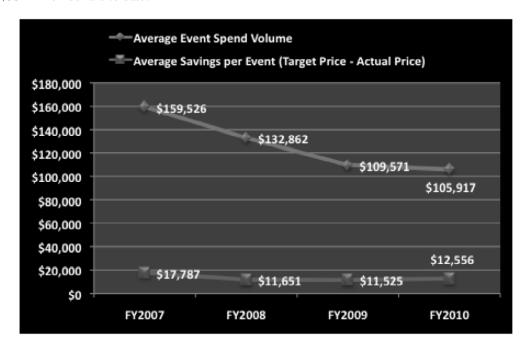


Figure 9. Wider Utilization Means Increasing Savings for the Agency, Even While the Average Dollar Volume of Events Declines

Thus, in the end, it is important to remember the simple mathematics of all of this - the more procurements that are competed through the online marketplace, the greater the savings will be for the agency, the government as a whole, and most importantly, for the taxpayer.

#### 4.2.2. What Was Being Procured through Reverse Auctions?

The feedback from the CBP contracting staff in the survey conducted for this research effort buttressed these findings on the growing use of the competitive bidding technique for procurements in the agency. Indeed, recall Figure 4 (*Number of Buys Competed by Survey Participants*), which showed that *over 80%* of the survey participants had personally utilized the online reverse auction marketplace for CBP procurements in at least 20 or more instances. Thus, we can see that while CBP contracting personnel were taking advantage of the FedBid online marketplace for large procurements, they were also making use of them for more routine purchases as well.

The very nature of CBP's mission necessitates that the agency buy everything from computers to canines. The large variety of goods and services that CBP has acquired through the use of the FedBid online marketplace is impressive, showing the breadth of what can be procured through

competitive bidding. Indeed, what appear to be routine purchases for CBP may be highly unusual for many other federal agencies. Yet, the buys that they have successfully conducted through the FedBid online marketplace definitely show that marketplace-based reverse auctioning, which replaces traditional time-intensive event-based reverse auctioning with properly structured events and extensive communication with both internal customers and potential suppliers a 24/7, full-service operation providing continuous seller engagement, can be used for even the most specialized and mission-critical items – moving far beyond commodities.

Analysis of CBP's online reverse auction marketplace spending data for the most recent full fiscal year for which a complete breakdown of spending was available as of the date of this report (FY2009) revealed the following top 5 product categories (and examples of each):

- 1. Information Technology (ADP) Equipment
  - Firmware
  - Software
  - Supplies and Support Equipment
- 2. Ground Effect Vehicles, Motor Vehicles, Trailers, and Cycles
  - ATVs
  - Cargo Trailers
  - John Deere Gators & Tractors
  - Snowmobiles
- 3. Clothing, Individual Equipment, and Insignia
  - Tactical Gear & Equipment
  - ATV Equipment
  - Camelback hydration equipment
  - Handcuffs
- 4. Communication, Detection, and Coherent Radiation Equipment
  - Mobile Satellite two-way radios
  - Satellite Phones
  - GPS Units
- 5. Fire Fighting Rescue and Safety Equipment
  - Safety Equipment
  - EMT Supplies
  - First Responder Bags

The following are the top 3 categories of CBP's services spend for FY2009 (and examples of each):

- 1. Housekeeping /Janitorial Facility Maintenance & Custodial Services
  - Trash Removal
  - Roofing and Gutters
- 2. Maintenance, Repair or Alteration of Real Property
  - Resurfacing of Airport Ramp
  - Hangar Door Repair
  - Replacement of siding, roofing, skylights, trim, doors
- 3. Maintenance, Repair, and Rebuilding of Equipment
  - Maintenance on clocks, shredders, and currency counters.
  - Vehicle lift Removal & Installation
  - VMware Software Maintenance

When asked "What is the most unusual/noteworthy item or service you have acquired making use of the FedBid online marketplace?," the survey respondents themselves reported a wide array of procurements that could be perceived as unique by outsiders, but in many instances, integral to the ability of border patrol agents and customs workers to perform their functions. These items/services included such things as:

- ATV's
- Armored Vehicles
- Rifle Scopes
- BuzzBalls
- Mettler Toledo scales for measuring seized narcotics
- Short Wave Infrared Imager with Tri-Emission Beacons
- Farrier services (horseshoeing)
- Horse Saddles
- Canines (live dogs and puppies, along with related supplies)
- Septic Tank Pumping service
- Internet Advertising Service
- Ultraviolet Mini-Lantern
- And last but not least, an Underwater Treadmill for canine use.

It is important to note that in response to this question, one of the contracting professionals simply responded that: "Nothing stands out as I have been able to use FedBid for *basically everything*" (emphasis added). This shows the extent to which CBP staffers have – in many cases – begun to see the online reverse auction marketplace as a "first choice" in contracting.

The survey respondents were then asked to report what were their largest – and smallest – procurements made through the FedBid online marketplace. On the high end, the contracting staff reported that their largest buy made through FedBid for CBP was – on average - in excess of \$1.1 million dollars. On the low end, the survey group reported an average smallest procurement (in terms of dollars) of just under \$7,000, with many respondents having conducted purchases of a thousand dollars or less through the online marketplace. As part of the survey, respondents were asked what was the product or service that was acquired in this largest or smallest procurement. The vast array of goods AND services that were acquired in both multi-million dollar and thousands of dollars purchases shows the flexibility and utility of FedBid in ensuring competition among a growing pool of qualified suppliers. This demonstrates the flexibility of the FedBid online marketplace for use with all levels and categories of procurement spend in not just CBP, but across federal agencies.

## 4.3. Introducing Competition

## 4.3.1. Moving Away from Sole Sourcing

An especially important consideration found by delving into the CBP procurement data and the survey results is in regards to changing both the mindset - and practice - of purchasing when it comes to items that had formerly been considered to be "sole source" (able to be delivered by only a single supplier). The utility of the FedBid online marketplace to find viable rival suppliers for goods and services that had been sole sourced in the past was significant. As can be seen in Figure 10 (Competed Formerly Sole-Sourced Items through the FedBid Online Marketplace), over three-quarters of the survey respondents had themselves personally conducted a procurement through FedBid for an item or service they had previously purchased offline as sole-sourced item or service. In fact, of those CBP procurement professionals who had competed formerly sole-sourced contracts, two-thirds had done so on more than one occasion, and quite impressively, over forty percent had done so on a routine basis, subjecting

five or more previously sole sourced goods or services to reverse auction competition using the FedBid online marketplace.

As a result, the average value of a procurement that was converted from a sole source to a competitively bid buy was in excess of \$300,000 – meaning that each time this happens, on

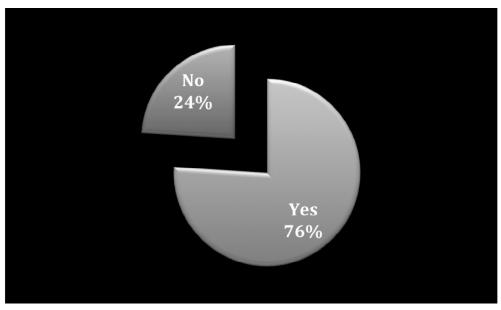


Figure 10. Competed formerly sole-sourced items through the FedBid online marketplace

average, the government can expect to save over \$30,000 – and in some cases far more than that given the fact that in several instances, these buys involved formerly sole sourced items on contracts that were at the multi-million dollar level. Thus, one of the principal benefits of making use of the FedBid online marketplace is testing the waters on sole sourced items to find potential competitive – and qualified - suppliers and introduce competition into areas that had heretofore been considered non-competitive. This not only works to save money and increase competition, but to restore confidence in the government's primary stakeholders – the taxpayers – that every dollar expended on goods and services is being spent in the most competitive and most transparent manner possible.

#### 4.3.2. Internal Auction Metrics on Competition

When looking at the internal metrics behind the reverse auctions conducted by CBP, the dynamics of competitive bidding are a major reason behind the top-level cost savings that have been produced by the FedBid online marketplace. Looking at the key "internals" for the reverse auctions held for CBP, shown in Table 8 (*Reverse Auction Metrics on CBP Procurements* {FY2007-FY2010}), one can see that in each successive year, there were – on average – more bidders for each reverse auction and the number of bids submitted. As has been shown in countless academic studies on auctions of all varieties, more competitors and more competition means better pricing. And in this case, the beneficiary will be the taxpayers, as a result of the millions of dollars to be saved through reverse auctions driving down procurement costs (remember, there is an average of 10.31% savings, based on the multi-year CBP experience).

An internal dynamic that should not be overlooked is the growth in the number of "no bids." Contrary to what one might think, no bids are actually a positive when it comes to reverse auctions in federal procurement. This is because when a solicitation is issued for any

procurement using the FedBid online marketplace, a notice is electronically forwarded to all potential interested and qualified suppliers in their database for federal procurement opportunities, as well as being placed in FedBizOpps (the federal government's central opportunity notification database) when applicable. Thus, while thousands of potential suppliers may know about a particular buy, to register a "no bid," the supplier actually has to go in and

Process Metric	FY2007	FY2008	FY2009	FY2010	AVERAGE
Average Number of	3.89	4.35	4.82	3.67	4.18
Bidders/Buy					
Average Number of	7.93	10.32	11.1	7.57	9.23
Bids/Buy					
Average Number of	35.39	51.7	61.93	63.61	53.16
No Bids/Buy					
Largest Number of	280	248	450	476	363.5
No Bids/Buy					
Total Number of No	18,191	61,986	103,419	82,381	66,494
Bids/Fiscal Year					

Table 8. Reverse Auction Metrics on CBP Procurements (FY2007-FY2010).

reply to the solicitation – and by that reply, that means they have actually read and considered – to some degree – actually participating in the reverse auction. And with the emphasis today on reaching small and disadvantaged businesses and including them in federal contracting opportunities, an increasing level of no bids means that more and more potential suppliers are not just being considered for contracting opportunities, but actually making decisions on whether or not to participate in the reverse auctions. In the future, the data on no bids that is compiled by FedBid may be useful for buyers to better target suppliers with contracting opportunities based on their record of participation and non-participation in specific reverse auctions.

# 4.3.3. Increasing Opportunities for Small and Disadvantaged Businesses

Finally, it is important to take a look at the fact that the gains – in savings as well as competition – made through the use of the FedBid online marketplace have benefitted small and disadvantaged businesses across the country, all of which have gained newfound access to compete for CBP's procurement spending dollars. Thanks to the network of potential suppliers for government contracts that FedBid constantly works to enlarge and update, CBP has achieved having the lion's share of its procurement spend being directed to small and disadvantaged businesses – well in excess of 90% of the total for each of the years since the agency began using the online reverse auction marketplace. These numbers are significant given the small business utilization requirements and consistent efforts by Congress and recent Administrations, including the current White House, to boost small business participation in federal contracting.

Especially because of the nature and location of much of CBP's work is "outside the Beltway," this spending has a tremendous impact on small firms throughout the country – but especially in the border areas of the Southwest. One respondent to the survey recounted such an instance, stating how he had been able to quickly use FedBid to complete what for him was the smallest purchase made to date through the online marketplace - a transmission for a Dodge truck, advertised nationally through FedBid – with the winning bid coming from a local Dodge dealership in Tucson, Arizona. In the harsh economic times the country faces today, the importance of providing an opportunity for small and disadvantaged businesses to compete in – and win – government contracts through the online reverse auction marketplace cannot be overstated.

The CBP data shows that the opportunity created by the FedBid online marketplace for this Tucson auto dealer is not an isolated one. Nine out of every 10 procurement opportunities competed by CBP through FedBid have been bid on – and won – by small and disadvantaged businesses. Thus, agency use of the online reverse auction marketplace helps open a gateway for many firms to tap into not just federal procurement, but creates an opportunity for them to compete for business across the public and private sectors. In doing so, there's an important economic development benefit in that the agency's use of the FedBid online marketplace pays further dividends by helping small and disadvantaged businesses across the country with both direct and indirect business opportunities – creating revenue, profits, and yes, jobs, in a time of great economic uncertainty.

# 5. CONCLUSION

In 2008, John Ely, CBP's Executive Director of the Office of Procurement Operations, made the following observation regarding his organization's use of the online marketplace:

"Not only were we better able to process our requirements, but we were able to do so regardless of whether we competed the acquisition on the open market or through agency- or government-wide contract vehicles like FirstSource or FSS. In nearly every case, we achieved significant, measurable savings. We did so while improving a number of key metrics, including competition and small business utilization. Just as important, we dramatically improved our process efficiencies. Our procurement professionals now spend more time performing skilled analysis and focusing on intelligent decision-making" [6].

The present study clearly corroborates Mr. Ely's early assessment – and shows the magnitude of what can be accomplished with proactive leadership, dedicated agency staff, and a resourceful private sector partner.

The effective business relationship forged between CBP and FedBid, Inc., stands as a model for how federal acquisition can be made more competitive and less costly, while producing benefits for the acquisition workforce, the government, and above all, for taxpayers. CBP results provide compelling evidence that efficient competitive bidding can – and should - be a significant part of the push for acquisition reform across all federal agencies.

Indeed, ChainLink Research has recently released a report on what he terms "comprehensive auctioning." In summary, the report presents clear evidence that such a "comprehensive auctioning" (or auction first) strategy — whereby higher and higher percentages of an organization's spending is competed through reverse auctions — can pay significant dividends for any organization — including government agencies [11].

Beyond the significant – and sustainable - "hard dollar" savings to can be gained through reverse auctioning techniques described by the ChainLink Research report, the process savings generated specifically by the FedBid online marketplace model – and the value created by shifting the time and attention of acquisition professionals from process work toward higher value activities demonstrated by the results of the present study – is substantial as well. This makes it all the more imperative that agencies look at their own procurement operations to consider how they too should integrate reverse auctioning – and specifically the comprehensive, online marketplace model – into their own acquisition strategies.

We thus stand at an important crossroads. Pressure is mounting on all in government to "do more without more." In response, and in true American fashion, the private sector has created an innovative business method – now proven through a decade's worth of successful performance – that can go a long way towards making federal procurement better, faster, cheaper, and more accountable and transparent in the process. There will undoubtedly continue to be resistance along the way. And yes, changing the way procurement is conducted is nothing less than a

major organizational change effort, characterized by Steve Kelman (2005), Harvard University Professor and the former head of the Office of Federal Procurement Policy, as needing committed leaders and procurement professionals to be a part of the "change vanguard" to shift the focus of procurement from one emphasizing process to one creating value – and saving money in the process [12]. However, it is clear – armed with both guidance from the President and evidence from agencies such as CBP - the time to fully embrace reverse auctions is now.

# ACKNOWLEDGEMENTS

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