



December 2013

REVERSE AUCTIONS

Guidance Is Needed to Maximize Competition and Achieve Cost Savings

GAO Highlights

Highlights of [GAO-14-108](#), a report to congressional requesters

Why GAO Did This Study

Reverse auctions are one tool used by federal agencies to increase competition and reduce the cost of certain items. Reverse auctions differ from traditional auctions in that sellers compete against one another to provide the lowest price or highest-value offer to a buyer. GAO was asked to review issues related to agencies' use of reverse auctions. This report examines (1) what agencies are buying through reverse auctions and trends in their use; (2) how agencies are conducting reverse auctions; and (3) the extent to which the potential benefits of reverse auctions are being maximized. GAO identified five agencies conducting about 70 percent of government reverse auctions. GAO analyzed available data and guidance and interviewed agency officials and contractors. GAO also reviewed a random sample of contract files to understand agency procedures; the results of this analysis are generalizable to all reverse auctions for four of the five agencies in our review.

What GAO Recommends

GAO recommends that the Director of the Office of Management and Budget (OMB) take steps to amend the FAR to address agencies' use of reverse auctions and issue government-wide guidance to maximize competition and savings when using reverse auctions. OMB generally agreed with GAO's recommendations, noting that FAR coverage should be considered and that, before taking concrete steps to amend the FAR, they would discuss GAO's findings and conclusions with the FAR and Chief Acquisition Officers Councils.

View [GAO-14-108](#). For more information, contact Michele Mackin at (202) 512-4841 or MackinM@gao.gov.

December 2013

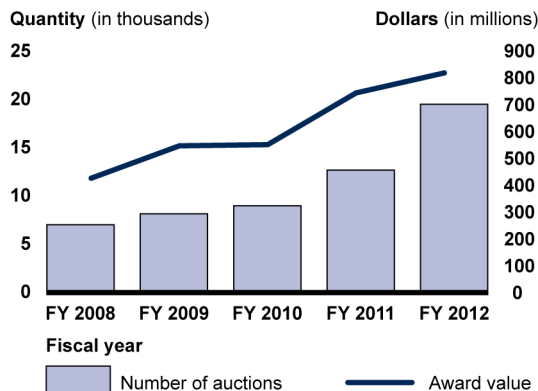
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Guidance Is Needed to Maximize Competition and Achieve Cost Savings

What GAO Found

The Departments of the Army, Homeland Security, the Interior, and Veterans Affairs used reverse auctions to acquire predominantly commercial items and services—primarily for information technology products and medical equipment and supplies—although the mix of products and services varied among agencies. Most—but not all—of the auctions resulted in contracts with relatively small dollar value awards—typically \$150,000 or less—and a high rate of awards to small businesses. The four agencies steadily increased their use of reverse auctions from fiscal years 2008 through 2012, with about \$828 million in contract awards in 2012 alone. GAO was not able to analyze data from a fifth agency, the Defense Logistics Agency (DLA), because it collected only summary level information during fiscal year 2012. DLA guidance states that the reverse auction pricing tool should be used for all competitive purchases over \$150,000.

Number and Value of Reverse Auctions across the Four Selected Agencies, Fiscal Years 2008 to 2012



Source: GAO analysis of FedBid data.

Four agencies used the same commercial service provider to conduct their reverse auctions and paid a variable fee for this service, which was no more than 3 percent of the winning bid amount. DLA conducts its own auctions through a purchased license. Regardless of the method used, according to agency officials, contracting officers are still responsible for following established contracting procedures when using reverse auctions.

GAO found that the potential benefits of reverse auctions—competition and savings—had not been maximized by the agencies. GAO found that over one-third of fiscal year 2012 reverse auctions had no interactive bidding, where vendors bid against each other to drive prices lower. In addition, almost half of the reverse auctions were used to obtain items from pre-existing contracts that in some cases resulted in agencies paying two fees—one to use the contract and one to use the reverse auction contractor's services. There is a lack of comprehensive governmentwide guidance and the Federal Acquisition Regulation (FAR), which is the primary document for publishing uniform policies and procedures related to federal acquisitions, does not specifically address reverse auctions. As a result, confusion exists about their use and agencies may be limited in their ability to maximize the potential benefits of reverse auctions.

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Abbreviations

DHS	Department of Homeland Security
DLA	Defense Logistics Agency
DOD	Department of Defense
DOI	Department of the Interior
FAR	Federal Acquisition Regulation
GSA	General Services Administration
GWAC	Governmentwide acquisition contract
IT	Information Technology
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
VA	Department of Veterans Affairs

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December 9, 2013

Congressional Requesters

In recent years, federal agencies have been using reverse auctions—in which sellers compete against each other to sell their products or services to the buyer—as a tool to reduce the price they pay for certain types of items. In theory, a reverse auction leverages competition, enabling agencies to obtain lower prices and reduce acquisition costs. Our prior work found that government agencies were increasingly using reverse auctions as a means to drive down prices. You asked us to review issues related to agencies' use of reverse auctions. This report examines (1) what agencies are buying through reverse auctions and trends in their use; (2) how agencies are conducting reverse auctions; and (3) the extent to which the potential benefits of reverse auctions are being maximized.

To conduct our work, we identified the agencies that used the greatest number of reverse auctions in fiscal year 2012 by reviewing contract award information in Federal Business Opportunities (FedBizOpps.gov).¹ The award information identifies when reverse auctions were used; however, not all contract award actions are required to be announced in FedBizOpps. Over 99 percent of the fiscal year reverse auctions listed in FedBizOpps showed that the agencies used the same contractor, FedBid, Inc. (FedBid),² to conduct their reverse auctions. Because the federal agencies did not maintain the level of detailed information needed for our review, we obtained reverse auction data from FedBid. We used this data to: (1) confirm that the Departments of the Army (Army), Homeland Security (DHS), the Interior (DOI), and Veterans Affairs (VA) were primary users of reverse auctions; (2) determine the types of products and services acquired by these agencies; (3) compute the fees charged by FedBid for its services; and (4) analyze the savings. By relying on the FedBizOpps data, we also selected the Defense Logistics Agency (DLA) for examination because it had the greatest number of reverse auctions

¹FedBizOpps.gov is the single point of entry where government business opportunities greater than \$25,000 can be accessed electronically by the public. However, not all contract award actions are required to be published in FedBizOpps. For example, exceptions apply for certain orders placed under indefinite-delivery or federal supply schedule contracts. Federal Acquisition Regulation (FAR) § 5.301(b).

²FedBid, Inc., located in Vienna, Virginia, is a provider of electronic commerce services, which includes online reverse auctions.

that did not use FedBid. Together, these five agencies represent approximately 70 percent of government-wide reverse auction activity, based on FedBid and FedBizOpps data.³ We were not able to perform detailed analysis of DLA data for fiscal year 2012, because the agency collected only summary level information. Agency officials told us that providing the data for each auction would require them to review all contract files to determine whether a reverse auction had been used. We determined that it would not be a good use of DLA's resources to conduct that review. However, we interviewed DLA officials and obtained their summary level information to assess the agency's use of reverse auctions. Throughout the report, our quantitative analysis primarily refers to Army, DHS, DOI, and VA.

We also reviewed and analyzed government-wide and agency policies and guidance across all 5 agencies, where available, related to the use of reverse auctions. We discussed the benefits and disadvantages of using reverse auctions with government acquisition officials, including agency contracting officers, small business and competition officials, and officials from the Office of Management and Budget's Office of Federal Procurement Policy (OFPP). We also spoke with organizations representing government contractors to obtain their positions on the federal government's use of reverse auctions. To understand how contracting officers conducted market research, determined government estimates, and made source selections, we selected a random sample of 119 contract files for acquisitions that used reverse auctions in fiscal year 2012 for the Army, DHS, DOI, and VA and reviewed the contract files. The results of our sample are generalizable to the entire population of 19,688 reverse auctions conducted at the four agencies during fiscal year 2012.⁴ We specifically obtained documentation to determine how independent government estimates were made, what type of market research was conducted, and whether small business consideration or other preferences were exercised. We also obtained documentation addressing technical and price evaluation, the source selection decision, and any estimated savings related to the use of reverse auctions. Using the same sample, we compared the data obtained from FedBid with the

³Other agencies that use reverse auctions include the Departments of Justice, Navy, and State.

⁴All percentage estimates from the file review have margins of error at the 95 percent confidence level of plus or minus 7 percentage points or less, unless otherwise noted.

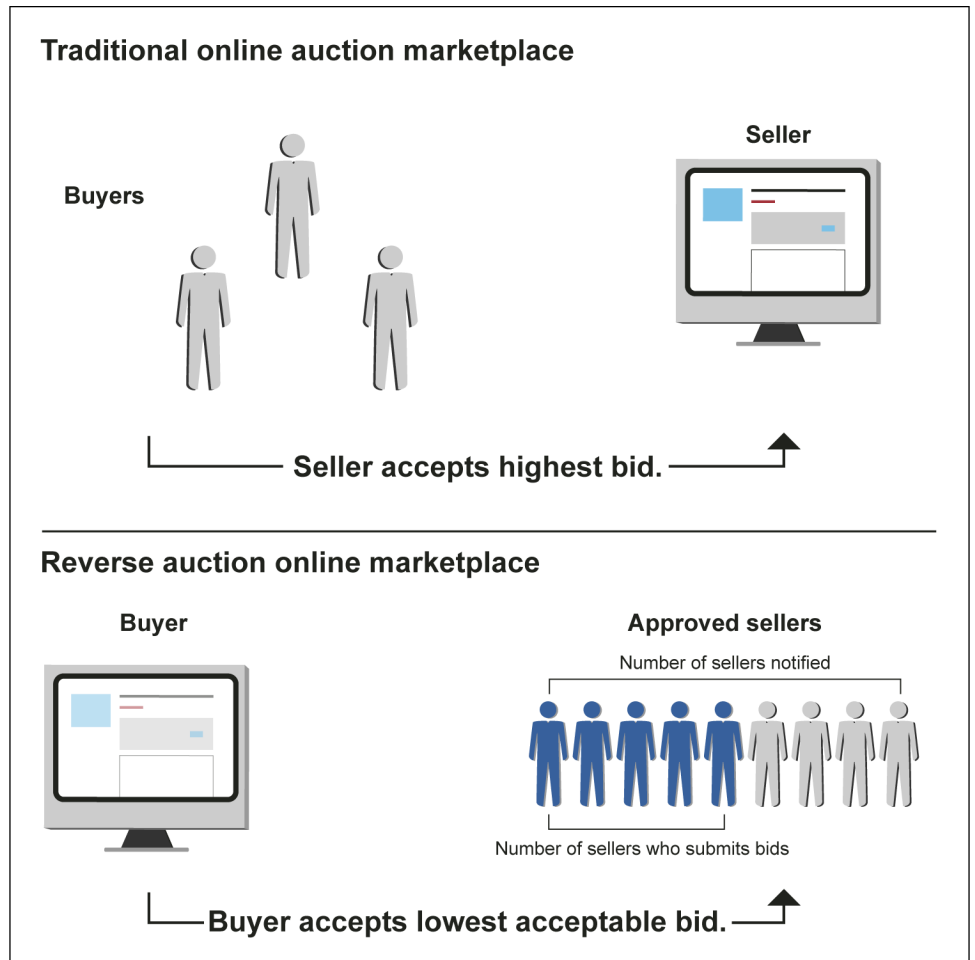
information contained in the contract files and determined that the data were sufficiently reliable for our purposes.

We conducted this performance audit from November 2012 to December 2013 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. For more information on our scope and methodology, see appendix I.

Background

Reverse auctions are similar to traditional auctions, except that the sellers compete against each other to sell their products or services to the buyer. Unlike a traditional auction, in which multiple buyers bid against one another to push the price up, reverse auctions enable a buyer to evaluate proposals submitted from multiple sellers, in which sellers compete against one another to provide the lowest price or highest-value offer. After considering all offers, the buyer selects the winning proposal, often at a reduced price. Figure 1 compares these two types of auctions.

Figure 1: Comparison between Traditional and Reverse Auctions



Source: GAO presentation.

Prior to 1997, auctioning techniques were prohibited in the federal government under the Federal Acquisition Regulation (FAR) procedures for negotiated procurements. Agencies were prohibited from advising an offeror of where its bid stood compared with those of other offerors and furnishing information about other offerors' prices, both of which are key

tenets of a reverse auction.⁵ In 1997, the FAR Council⁶ rewrote Part 15 of the FAR to eliminate these prohibitions as part of an overall effort to make the source selection process more innovative, simplify the process, and facilitate a best value acquisition approach.⁷ Currently, while the FAR does not specifically address reverse auctions, several provisions facilitate agencies' use of them, such as allowing the use of innovative strategies and electronic commerce.⁸ OFPP has considered the necessity for government-wide guidance on reverse auctions numerous times since 1997, when the auctions prohibition was removed from the FAR. In October 2000, the FAR Council issued a notice in the Federal Register requesting information from the acquisition community to help determine the best approach to inform thinking regarding the use of reverse auction techniques. In 2007, when responding to the Conference Report accompanying the National Defense Authorization Act for Fiscal Year 2006,⁹ OFPP conducted a survey of both sellers and buyers to assess how federal government buying activities could most effectively use reverse auctions to increase savings. According to OFPP officials, neither of these efforts resulted in guidance being provided to federal agencies.

In 2001, the Department of Defense (DOD) issued guidance on acquiring commercial items that stated where competition exists, the reverse auction environment results in driving down the sellers' offered prices. Since then, several reviews have addressed agencies' use of reverse auctions. In 2003, the Army Corps of Engineers concluded that the method was useful for commodities purchases but was not suitable for construction services acquisitions. In 2004, we reported that the U.S. Postal Service claimed over \$5.9 million in savings by using reverse auctions in fiscal year 2003; however, we found that \$2.1 million of the

⁵FAR § 15.610(e)(2)(ii)-(iii) (Oct. 1, 1996).

⁶The FAR Council membership consists of the Administrator for Federal Procurement Policy (the Chair), the Secretary of Defense, Administrator of the National Aeronautics and Space Administration, and Administrator of the General Services Administration.

⁷62 Fed. Reg. 51224 (Sept. 30, 1997). Best value means the expected outcome of an acquisition that, in the government's estimation, provides the greatest overall benefit in response to the requirement. FAR § 2.101). We have previously reported on the best value procurement approach. See GAO, *Defense Contracting: Enhanced Training Could Strengthen DOD's Best Value Tradeoff Decisions*, [GAO-11-8](#) (Washington D.C.: Oct. 28, 2010).

⁸FAR §§ 1.102-4(e); 4.502.

⁹H.R. Rep. No. 109-360, at 770 (2005) (Conf. Rep.).

claimed savings was questionable because of incorrect baseline data. We also noted that the Postal Service may not have obtained the lowest prices possible when, in about a quarter of the auctions, it received only one bid.¹⁰ In 2011, we found that half of the 24 agencies involved in an Office of Management and Budget (OMB) cost savings initiative reported using reverse auctions to improve competition and reduce prices on commonly purchased products and services.¹¹

Agencies Increased Their Use of Reverse Auctions Predominantly to Purchase Commercial Items

The agencies we reviewed—Army, DHS, DOI, and VA—have steadily increased their use of reverse auctions in volume and dollars in recent years.¹² From fiscal years 2008 to 2012, the number of reverse auctions almost tripled—from 7,193 to 19,688—and resulted in about \$828 million in fiscal year 2012 contract awards. While there is no requirement to limit reverse auctions to commercial items, agencies generally used them to acquire commercial products and services—primarily for information technology (IT) products and the lease or rental of equipment.¹³ Combined, the agencies used reverse auctions to award only a small portion of all commercial acquisitions—not quite 7 percent of actions. Across the agencies we reviewed, reverse auctions shared several common characteristics, such as relatively small dollar value awards and a high rate of awards to small businesses. DLA’s guidance, issued in June 2012, states that the reverse auction pricing tool should be used for all competitive purchases over \$150,000.

¹⁰GAO, *Postal Service: Progress in Implementing Supply Chain Management Initiatives*, GAO-04-540 (Washington D.C.: May 17, 2004).

¹¹GAO, *Federal Contracting: OMB’s Acquisition Savings Initiative Had Results, but Improvements Needed*, GAO-12-57 (Washington D.C.: Nov. 15, 2011).

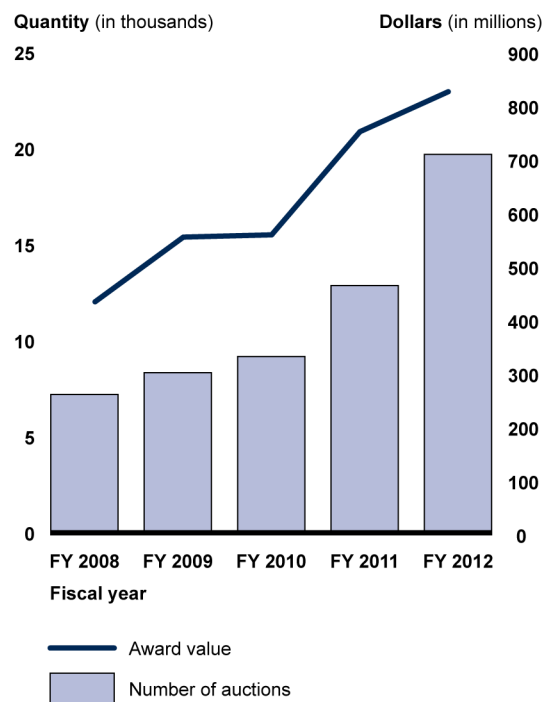
¹²DLA, which manages its own reverse auction activity, independently collects summary information from its buying commands on use and savings obtained, but was not able to provide us with a complete list of the individual acquisitions that used reverse auctions in fiscal year 2012. However we interviewed DLA officials and utilized their summary level information to assess the agency’s use of reverse auctions.

¹³We generally characterized the products and services acquired from the use of reverse auctions as commercial items because (1) agency officials stated that they use reverse auctions to purchase commercial items, (2) agency guidance on reverse auctions is focused on commercial acquisitions for reverse auctions, and (3) FedBid’s description of their services is limited to commercial items. However, we could not validate whether all of the reverse auctions in the scope of our review were used to acquire commercial items, as that term is defined in the FAR, because the data did not identify whether the products and services acquired were commercial items.

Reverse Auctions Have Increased and Have Been Used Primarily to Buy Commercial Products and Services

Across the agencies we selected, use of reverse auctions increased almost 175 percent between fiscal years 2008 and 2012. Figure 2 summarizes the growth in use of reverse auctions in dollars and number of auctions.

Figure 2: Number and Value of Reverse Auctions across the Selected Agencies from Fiscal Years 2008 to 2012

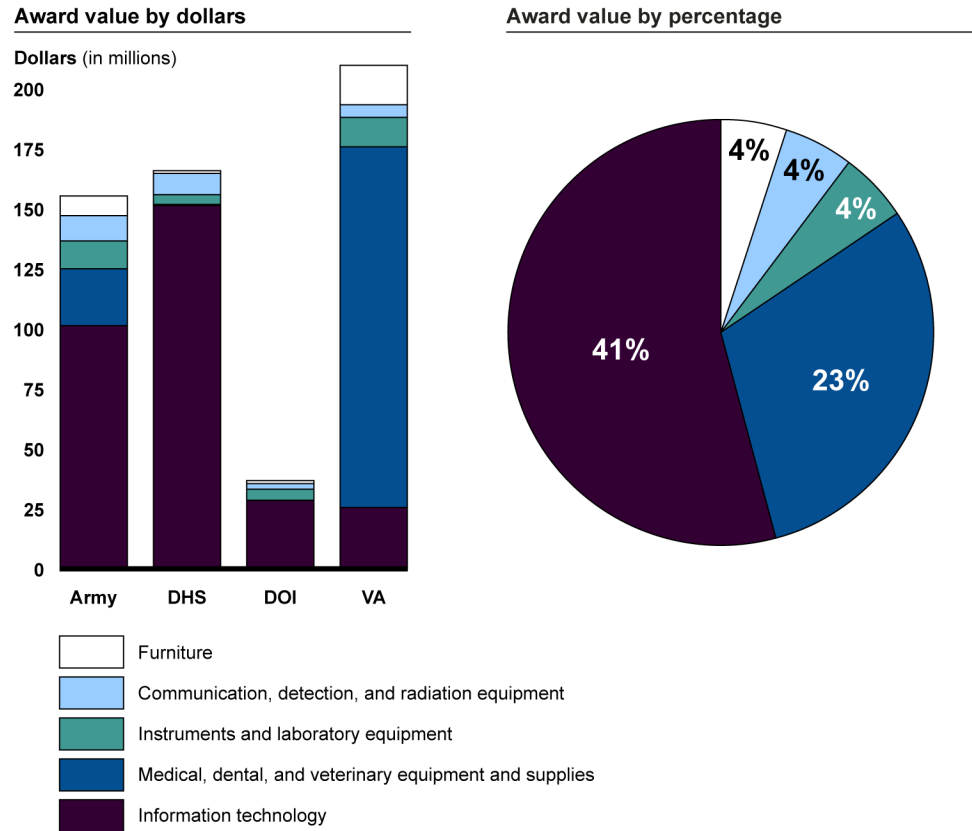


Source: GAO analysis of FedBid data.

Note: This graphic includes information for Army, DHS, DOI, and VA.

Agencies in our review used reverse auctions to purchase a variety of commercial products, although the top five categories varied among agencies. For example, Army, DHS, and DOI purchased mostly IT products, while the VA purchased mostly medical equipment and supplies. In addition, DHS and DOI purchased comparatively less in medical supplies than the Army and the VA. Across the selected agencies, 41 percent of all reverse auctions were for IT-related items and 23 percent were for medical supplies in fiscal year 2012, as shown in figure 3.

Figure 3: Top Five Categories of Products across the Selected Agencies by Award Value and as a Percentage of Total Reverse Auction Award Value, Fiscal Year 2012



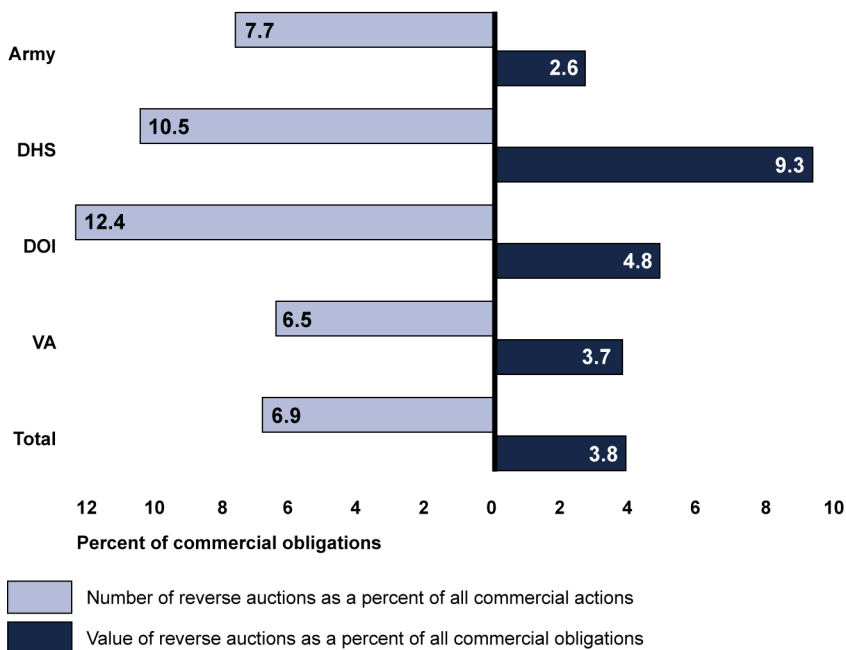
Source: GAO analysis of FedBid data.

Of the \$828 million in fiscal year 2012 contracting actions that resulted from reverse auctions, \$746 million—or 90 percent—were for products. Services, in contrast, constituted about 10 percent. Across the agencies, four categories of services—Lease or Rental of Equipment; IT and Telecom; Medical Services; and Maintenance, Repair, and Rebuilding of Equipment—made up nearly 60 percent of the \$83 million used to buy services through reverse auctions.

In fiscal year 2012, the four agencies in our review collectively reported more than 234,000 contract actions, excluding modifications, for

commercial items that were valued at \$21.5 billion.¹⁴ Combined, the agencies used reverse auctions to award only a small portion of all commercial acquisitions—not quite 7 percent of actions—which represented a little less than 4 percent of the dollar value of those commercial actions. Figure 4 compares the relationship between the number and value of reverse auctions as a percent of all commercial actions in fiscal year 2012.

Figure 4: Comparison of Commercial Acquisitions Using Reverse Auctions to All Commercial Acquisitions for the Selected Agencies, Fiscal Year 2012



Source: GAO analysis of FedBid and FPDS-NG data.

While to date most reverse auctions have been used for commercial products, some agency officials told us that the use of reverse auctions to acquire services is increasing and are also being used for more complex contract actions.

¹⁴As reported in the Federal Procurement Data System-Next Generation database.

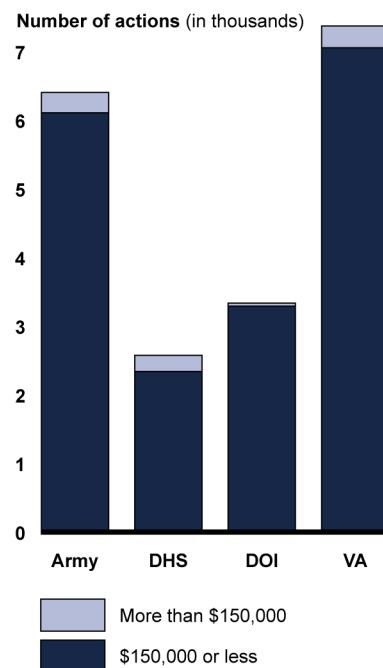
Most Reverse Auctions Share Common Characteristics

Our analysis of the data from FedBid identified four common characteristics among contract awards:

For \$150,000 or Less

There is no requirement to limit reverse auctions to a certain award value, and the reverse auctions at the selected agencies in fiscal year 2012 resulted in awards that ranged in value from about \$100 to almost \$6.3 million. However, we found that about 95 percent of the acquisitions using reverse auctions resulted in awards of \$150,000 or less. See figure 5.

Figure 5: Number of Reverse Auctions above and below \$150,000 at the Selected Agencies, Fiscal Year 2012



Source: GAO analysis of FedBid data.

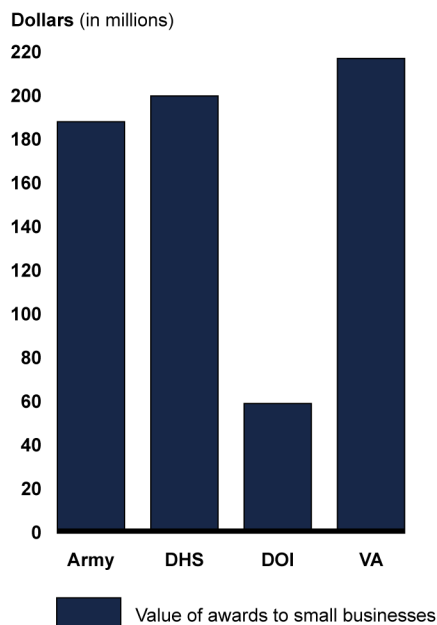
While we could not assess DLA's activity at this level of detail, its guidance states that the reverse auction pricing tool should be used for all competitive purchases over \$150,000.

To Small Businesses

About 86 percent of fiscal year 2012 acquisitions using reverse auctions—16,906 of 19,688—went to small businesses, in keeping with the FAR requirement that acquisitions of supplies or services with expected values of more than \$3,000 but not over \$150,000 are reserved

for small businesses, with some exceptions.¹⁵ These acquisitions accounted for \$661 million (80 percent) of the dollar value of all reverse auction awards. See figure 6.

Figure 6: Value of Small Business Awards Resulting from the Use of Reverse Auctions across the Selected Agencies, Fiscal Year 2012



Source: GAO analysis of FedBid data.

Using Existing Contracts

Almost half of the reverse auctions in fiscal year 2012 across the four agencies in our review—9,257 of 19,688—were conducted to place orders for products and services using existing contracts. Federal agencies can use a number of existing contract vehicles to leverage buying power and obtain lower prices, including the General Service Administration’s (GSA) multiple award schedule (Schedule) program, multi-agency contracts, and government-wide acquisition contracts

¹⁵FAR § 19.502-2(a) states each acquisition of supplies or services that has an anticipated dollar value exceeding \$3,000, but not over \$150,000 is reserved for small business concerns and shall be set aside for small business unless the contracting officer determines there is not a reasonable expectation of obtaining offers from two or more responsible small business concerns that are competitive in terms of market prices, quality, and delivery.

(GWAC).¹⁶ In some cases, the use of these contract vehicles includes a fee that the ordering agency must pay. The remaining reverse auctions did not result in placing orders under existing contracts but were considered open market transactions.¹⁷ See table 1. See appendix II for a description for each of the existing contracts used and the associated fees.

Table 1: Percentage of Reverse Auctions Used to Order from Existing Contracts Versus Open Market Transactions, Fiscal Year 2012

Contracts	Army	DHS	DOI	VA	Total^a
Agencies' existing contracts	4.7%	5.4%	0.2%	0.0%	10.2%
GSA and VA Schedules ^b	3.6	2.9	5.4	17.9	29.7
Governmentwide Acquisition Contracts	0.1	0.0	3.9	1.8	5.8
Other existing contracts used but not specifically identified	0.3	0.8	0.0	0.1	1.3
Total orders from existing contracts ^a	8.8	9.1	9.4	19.7	47.0
Open market transactions	23.8	4.0	7.5	17.7	53.0
Total^b	32.5%	13.1%	16.9%	37.4%	100.0%

Source: GAO analysis of FedBid data.

^aThe numbers do not always total because of rounding.

^bThe VA operates its portion of the Schedule program under a delegation of authority from GSA.

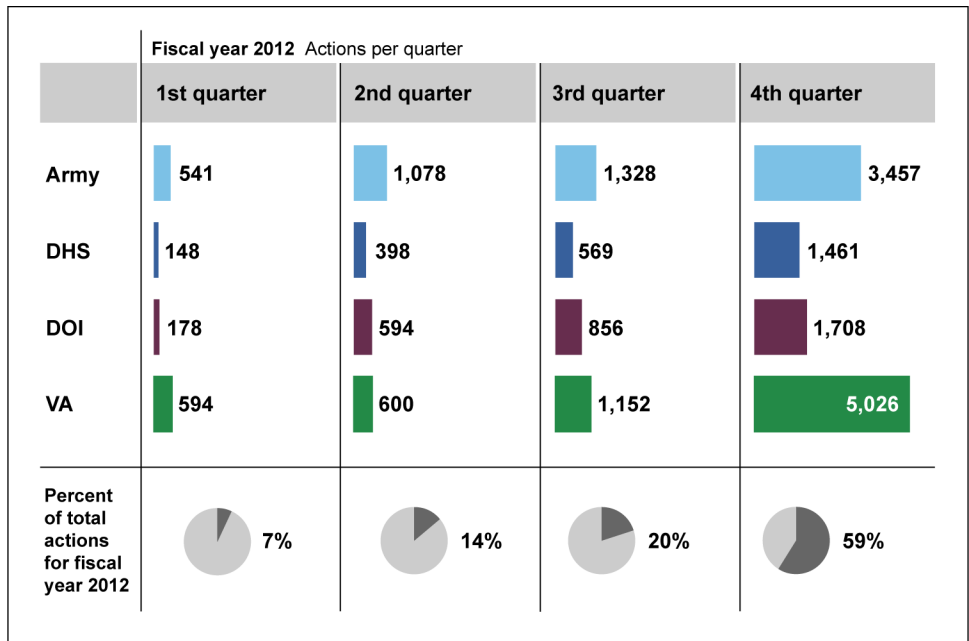
In the Fourth Quarter of Fiscal Year 2012

Almost 60 percent of the contract actions resulting from reverse auctions conducted in fiscal year 2012 across the selected agencies were awarded at the end of the fiscal year, as shown in figure 7.

¹⁶The multiple award schedule program consists of indefinite delivery contracts awarded to provide commercial items for purchase by federal agencies at stated prices for given periods of time, and it is managed by GSA. GSA has delegated authority to the VA to procure medical supplies under the VA Federal Supply Schedules program. FAR § 8.402. Multi-agency contracts are task-order or delivery-order contracts established by one agency for use government-wide to obtain supplies and services, consistent with the Economy Act. FAR § 2.101. GWACs are task-order or delivery-order contracts for information technology established by one agency for government-wide use that are operated by an executive agency designated by the Office of Management and Budget pursuant to the Clinger-Cohen Act of 1996. GWACs are considered multi-agency contracts but, unlike other multi-agency contracts, are not subject to the same requirements and limitations. FAR § 2.101; 40 U.S.C. §§ 11302(e), 11314(a)(2).

¹⁷FedBid defines "Open Market" as a reverse auction for an order not conducted under an existing contract vehicle.

Figure 7: Number of Reverse Auctions by Quarter in Fiscal Year 2012



Source: GAO analysis of FedBid data.

Agency officials told us that the surge of fourth quarter reverse auctions parallels what happens with acquisitions in general at that time of the year and can be due to late release of funds. According to agency officials, reverse auctions, which can take as little as an hour for uncomplicated purchases, can facilitate the timely award of contracts at the end of the year. In prior work, we reported that a contracting officer turned to procedures that facilitated the rapid award of contracts in the fourth quarter.¹⁸

¹⁸GAO, *Federal Contracting: Monitoring and Oversight of Tribal 8(a) Firms Need Attention*, [GAO-12-84](#) (Washington D.C.: Jan. 31, 2012).

Most Agencies Use the Same Fee-Based Contractor and Are to Follow Established Contracting Procedures to Conduct Their Reverse Auctions

Four of the five agencies included in our review used the same service provider, FedBid, to conduct their reverse auctions. Agencies pay a variable fee to conduct reverse auctions through FedBid, which is no more than 3 percent of the winning bid. FedBid has a limited role in the acquisition process, since contracting officers are still responsible for making key decisions that affect the auction, such as selecting the winning vendor. For example, contracting officers select the basis for award, which may include award to other than the lowest priced bidder and we found that about a fourth of the 2012 contract actions resulting from reverse auctions were not awarded to the lowest bidder.

Four of the Five Selected Agencies Used the Same Reverse Auction Contractor

The Army, DHS, DOI, and VA contracted with a company called FedBid to conduct their reverse auctions during fiscal year 2012. The agencies used an existing GSA Schedule contract to procure FedBid's services, which include an online user interface, data management, and regular reports on reverse auction activity.¹⁹ According to FedBid, its product is a commercially available online procurement service that allows sellers of commercial items to the government to compete against each other in real time and in an interactive environment. FedBid also states that it safeguards each seller's identity and pricing. Other companies also conduct reverse auctions, and some officials noted their agencies had undertaken a cost/benefit analysis to determine which company to contract with for this service.

Agency acquisition officials told us that using a contractor for their reverse auctions reduced some of their administrative duties and allowed senior contracting officers to spend more time on complex acquisitions. For example, FedBid offers remote and on-site assistance to train, set up accounts, and provide technical support for federal reverse auction users. According to a FedBid representative, the company provides staff for an on-site helpdesk at the Army and DHS full time, and at DOI and VA on-demand as needed, typically in the fourth quarter of the fiscal year. According to agency officials, FedBid employees also provide training on the use of their system at government contracting facilities. In addition,

¹⁹Agencies order FedBid's services off of a GSA Schedule contract. FedBid is compensated for the services provided from the fees charged on each reverse auction that results in a contract awarded by the agency.

FedBid provides technical support to vendors on how to use their system. However, vendor questions about contract requirements are directed to the contracting officer.

OFPP procurement policy notes that agencies should provide a greater degree of scrutiny when contracting for professional and management support services, which include acquisition support, program evaluation, and other services that can affect the government's decision-making authority.²⁰ We did not conduct a detailed review of FedBid's role in providing technical support to contracting officials at the agencies. However, regarding its use of FedBid, DHS's Office of Procurement Operations recognized this concern and issued an operating procedure to emphasize that documentation in the contract file must clearly state that the contracting officer made all acquisition decisions throughout the procurement process, and that the role of any acquisition support contractor personnel was solely administrative and not decision-making. Other agencies in our review noted that this is a good practice and one that could be easily implemented.

DLA, the fifth agency we reviewed, did not obtain reverse auction services from FedBid, but rather purchased a license that allows it to conduct its own real-time, web-based auctions. The site allows DLA to manage its reverse auctions without the need for contractor services, with the exception of occasional technical support.

Contracting Officials Are to Follow Established Contracting Procedures When Using Reverse Auctions

The design of online reverse auctions can vary based on the acquisition strategy selected by the contracting officer. While the FAR is silent on reverse auctions specifically, agency officials told us contracting officers are required to follow other applicable acquisition procedures as outlined in the FAR and agencies' specific acquisition regulations when deciding to use a reverse auction and then throughout the auction and award process. For example, the program office or contracting officers are required to conduct market research for acquisitions above the simplified acquisition threshold (currently \$150,000) or, for acquisitions below that threshold, when adequate information is not available and the circumstances justify its cost. The contracting officer is also expected to determine whether an acquisition will be set aside for small businesses if

²⁰Office of Federal Procurement Policy, *Management Oversight of Service Contracting*, OFPP Policy Letter 93-1 (May 18, 1994).

it generally has an estimated value exceeding \$3,000 but not over \$150,000, and to follow simplified acquisition procedures to the greatest extent possible for all purchases not exceeding the simplified acquisition threshold. When using a reverse auction, contracting officers can utilize an existing contract vehicle, such as the GSA Schedule, or set aside the procurement for certain small business communities, where appropriate under applicable regulations.²¹ Contracting officers determine other features as well, including the length of the auction and the amount of information available to bidders about each other's bids. These strategies or features can affect the competitive environment of the auction and affect the magnitude of cost savings.

When setting up an auction on FedBid's system, a contracting officer can choose to set a target price, which may be based on a government cost estimate or market research. If a target price is in effect, or "active," a vendor must bid below that price—and below any other subsequent bids—in order to be the leading vendor. A vendor is informed when they are the leading vendor during the auction, though other vendors' names and bid prices remain anonymous. A contracting officer can award a contract even if no submitted bids meet the target price.

Vendors must register with FedBid and agree to the requirements established by the contracting officer before submitting a bid in an auction. These requirements may include delivery terms, whether the acquisition must be a brand name item, or other terms specific to the acquisition. Vendors can use FedBid's system to submit questions about requirements during the auction, and the system notifies the contracting officer via e-mail. It is up to the contracting officer to decide whether to answer them. Questions about using FedBid's system are usually sent to FedBid employees.

Figure 8 outlines the acquisition process when using a reverse auction, along with the roles of the agency officials procuring the item, FedBid, and the bidding vendors.

²¹See, e.g., FAR §§ 19.1305(b); 19.1405(b); and 19.1505.

Figure 8: Acquisition Process and Roles of Key Players under Reverse Auctions

	Agency	FedBid	Vendor
Before auction begins	<ul style="list-style-type: none"> • Conducts market research • Establishes a target price 		
	<ul style="list-style-type: none"> • Selects acquisition strategy, e.g. determines if set-aside for small business or use of a GSA Schedule contract 	<ul style="list-style-type: none"> • Notifies vendors about the auction • Registers new vendors and answers questions about how to bid 	<ul style="list-style-type: none"> • Receives notice about auction
During the auction	<ul style="list-style-type: none"> • Responsible for answering questions from vendors regarding acquisition requirements 	<ul style="list-style-type: none"> • Adjusts bids to include FedBid fee • Keeps bidders and bids anonymous 	<ul style="list-style-type: none"> • Submits bids, which must be the lowest bid and below the target price to be leading bidder
After the auction ends		<ul style="list-style-type: none"> • Sends auction results to the contracting officer 	
	<ul style="list-style-type: none"> • Decides whether to accept auction results or recompetes acquisition 		
	<ul style="list-style-type: none"> • Determines if bids are fair and reasonable and meet requirements • Awards the contract for total bid amount, including FedBid's fee 	<ul style="list-style-type: none"> • Invoices vendor for FedBid's fee 	<ul style="list-style-type: none"> • Pays reverse auction fee to FedBid

Source: GAO analysis of agencies' procurement processes and FedBid processes.

Agencies Pay a Variable Fee to Conduct Reverse Auctions

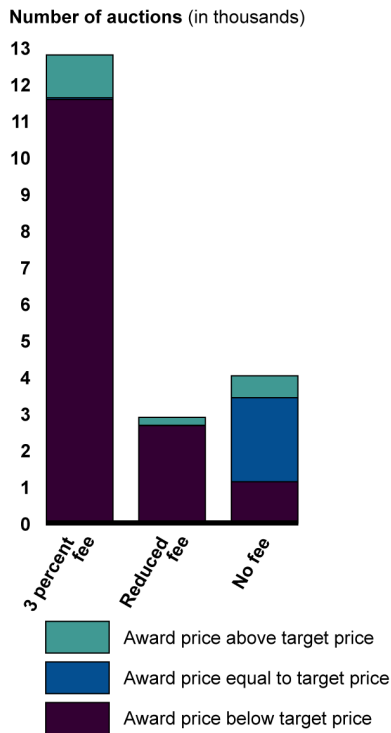
When a vendor submits a bid, FedBid automatically adds its fee and ranks the adjusted bid (i.e., the vendor's bid plus the fee) against adjusted bids submitted by other vendors. When the reverse auction ends and the contracting officer receives the results, the bids, which already include FedBid's fee, are ranked from lowest to highest. According to agency officials, contracting officers are then responsible for determining that the

results of the reverse auction have met the competition, savings, and other criteria for the procurement, selecting a winning vendor from those results, and awarding the contract. When the agency receives the goods or services, it pays the entire bid amount to the selected vendor, including the reverse auction fee. FedBid then sends an invoice to the selected vendor for the reverse auction fee. FedBid caps its fee at 3 percent of the winning vendor's bid, but the fee may be less depending on the specifics of FedBid's contract with the agency. For example, in June 2009, DHS's Office of Procurement Operations negotiated a reduced fee for its reverse auctions.

In addition, FedBid may reduce its fee or charge no fee in specific circumstances, such as if the adjusted bid exceeds the contracting officer's target price or if the fee would exceed \$10,000. In fact, our analysis found that FedBid received no fees in 20 percent of reverse auctions conducted in fiscal year 2012 at the selected agencies. In those cases, the agencies paid the price of the winning vendor's bid with no FedBid fee added.²² However, in 6 percent of the auctions, agencies paid the maximum fee even when the final award price exceeded the agency's target price. See figure 9.

²²For example, according to FedBid, a fee will not be charged if adding the fee causes the selected bid to exceed the price of the product or service offered under GSA's or VA's Schedule program.

Figure 9: Reverse Auction Fees Paid to FedBid Based on Vendors' Bids Relative to the Target Price at the Selected Agencies, Fiscal Year 2012



Source: GAO analysis of FedBid data.

Note: This graphic includes information for Army, DHS, DOI, and VA.

In July 2013, GSA launched its own reverse auction tool to allow agencies to use reverse auctions with the GSA Schedule without using separate contractor to conduct the auctions. GSA officials told us that they do not intend to charge a reverse auction fee for awards made to GSA Schedule holders; however, the usual 0.75 percent fee for using the GSA Schedule will apply to these awards.

The Vendor with the Lowest Bid Does Not Always Receive the Award

After the auction ends, a contracting officer can accept the auction results or start over with a new one. For example, a contracting officer might choose to repost the solicitation to a wider pool of potential vendors in an attempt to garner additional participants. Alternately, a contracting officer can choose to make an award even if the bids exceeded the target price. The contracting officer must also establish the basis for award. For example, the contracting officer can make the award to the lowest bidder or make the award based on a cost/technical tradeoff process where it is

in the best interest of the government to consider other than the lowest price. If a contracting officer is concerned about a vendor's ability to meet the requirements, he or she may select another vendor, even if that vendor submitted a higher bid. On the basis of our analysis of a random sample of fiscal year 2012 auctions, we estimate that 24 percent of all reverse auction contracts were not awarded to the lowest bidding vendor.²³

Competition and Savings Are Not Always Maximized, in Part Due to Lack of Comprehensive Guidance

Competition and savings—two of the key benefits of reverse auctions cited by the agencies we reviewed—are not always being maximized. Both have been limited because not all reverse auctions involve interactive bidding. Agencies have awarded a significant number of contracts when there was only one offeror or a lack of interactive bidding among vendors. As a result, agencies paid a fee without realizing the key benefits they initially sought. It is also unclear whether savings due to reverse auctions are accurate because target prices maybe set too low or too high. In some cases, agencies are paying two fees, but they generally lack the data to provide transparency into the fees they are paying. To some degree, these shortcomings result from confusion caused by a lack of comprehensive government-wide guidance.

Agencies Emphasize the Need for Competition through Interactive Bidding, but This Was Not Present in Over One-Third of Reverse Auctions

All five agencies we reviewed characterize a benefit of reverse auctions as driving prices lower by having vendors compete against each other. For example, DHS Customs and Border Protection's guidance notes that a benefit of reverse auctions is the increased competition on commonly purchased commodities. DLA guidance states that reverse auctions allow the government to procure products and services in a competitive and dynamic environment where vendors bid prices down until the end of the auction. In addition, according to information FedBid provides to the agencies, their service allows sellers to compete against each other in real time and in an interactive environment.

The benefits of competition in acquiring products and services from the private sector are well established. However, contracts that are awarded using competitive procedures but for which only one offer is received (one-offer awards) have recently become an area of concern. We

²³This estimate has a 95 percent confidence interval that extends from 17 to 33 percent. See Appendix I for more information on sampling error for survey estimates.

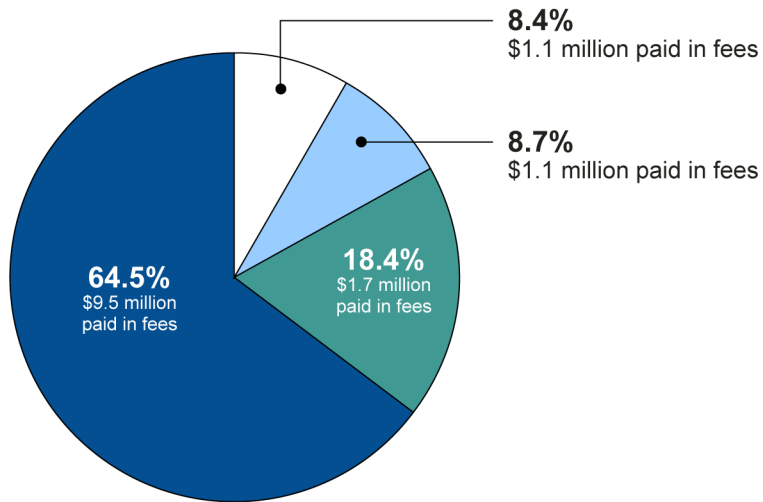
reported on this issue in 2010, and OFPP has noted that competitions yielding a response of only one offer deprive agencies of the ability to consider alternative solutions in a reasoned and structured manner.²⁴ DOD, in its September 2010 Better Buying Power initiative memorandum, referred to competitive procurements for which only one offer was received as “ineffective competition.”²⁵

Over a third of the fiscal year 2012 reverse auctions conducted by FedBid for the agencies in our review had no interactive bidding—where vendors engage in multiple rounds of bids against each other to drive prices lower. We found that 27 percent of the auctions involved only one vendor who may have submitted one or multiple bids, and another 8 percent had multiple vendors who only submitted one bid each. Agencies paid \$3.9 million in fees for these auctions. The remaining 65 percent of auctions involved multiple vendors where at least one vendor submitted more than one bid. Figure 10 shows the percentage of FedBid’s fiscal year 2012 auctions for the agencies in our review that had interactive bidding among multiple vendors, versus those that did not, and the fees the agencies paid to FedBid.

²⁴GAO, Federal Contracting: *Opportunities Exist to Increase Competition and Assess Reasons When Only One Offer Is Received*, [GAO-10-833](#) (Washington, D.C.: July 26, 2010).

²⁵Since 2010, DOD has issued additional Better Buying Power initiative guidance to continue its efforts to achieve greater efficiency and productivity in defense spending.

Figure 10: Fees Paid by Selected Agencies Based on Number of Vendors and Bids, Fiscal Year 2012



- Multiple vendors, one bid each
- One vendor, multiple bids
- One vendor, one bid
- Multiple vendors, where at least one vendor submitted more than one bid

Source: GAO analysis of FedBid data.

Note: This graphic includes information for Army, DHS, DOI, and VA.

In fiscal year 2012, the selected agencies conducted 3,617 auctions where only one vendor participated and submitted only one bid. Agencies in our review paid \$1.7 million in fees for these types of auctions. In this situation, agencies may not be getting the best price. In prior work, we found that a successful bidder did not initially offer his best price and it would not have been his final offer had there been competing bids. A few vendors that we spoke to also noted that it is in the vendor's best interest to submit a high initial bid and wait for another vendor to offer a lower price before lowering their own price. In our review of 119 contract files for awards resulting from reverse auctions for the agencies in our review, 24 auctions (20 percent) only had one offeror and the contracting officers did not negotiate a lower price but accepted that vendor's bid.

The agencies in our review also conducted 1,707 auctions in fiscal year 2012, where a single vendor submitted multiple bids. This can occur when a vendor makes more than one attempt to submit a bid below an active target price to become the leading vendor.²⁶ Given that FedBid does not disclose vendor identities, the target price, or bids, vendors do not know when they are bidding against themselves. While this could lead to lower prices, it does not meet agencies' goals of increasing competition, and these prices could possibly be obtained through traditional acquisition procedures. However, agency officials stated that using reverse auctions reduced some of the time that would otherwise be spent on the acquisition. The agencies paid \$1.1 million in fees when only one vendor participated in the auction but made more than one bid.

We also found that the agencies in our review paid \$1.1 million in fees in fiscal year 2012 for 1,663 auctions where multiple vendors submitted a single bid. In theory, a contracting officer could have obtained the same results by soliciting bids or offers from multiple vendors and avoided the reverse auction fee.

In fiscal year 2012, the agencies in our review conducted 12,701 auctions where more than one vendor participated, and had multiple bids, with an average of six vendors and 15 bids total. In our review of selected contract files, we found evidence that contracting officers took proactive steps to increase the number of bidders in an effort to realize lower prices, such as by asking FedBid to hold another auction to include additional vendors. In one case, a DHS contracting officer used a reverse auction to place an order for office supplies under an existing contract vehicle but did not receive any bids. Consequently, the contracting officer conducted another auction to place the order under GSA's Schedule program, which resulted in four vendors submitting a total of 40 bids. The contracting officer did not believe the auction resulted in the best price and invited all vendors to submit bids.²⁷ Inviting all bidders resulted in 21 vendors submitting a total of 74 bids and yielded an even lower price.

²⁶The target price was active in 95 percent of the reverse auctions we reviewed. All bids above an active target price will indicate that the bid is not the lowest bid, even if it is the lowest bid that has been submitted by a vendor.

²⁷As previously discussed, vendors must be registered with FedBid in order to submit bids.

Reverse Auction Savings Hinge on Agencies' Established Target Price

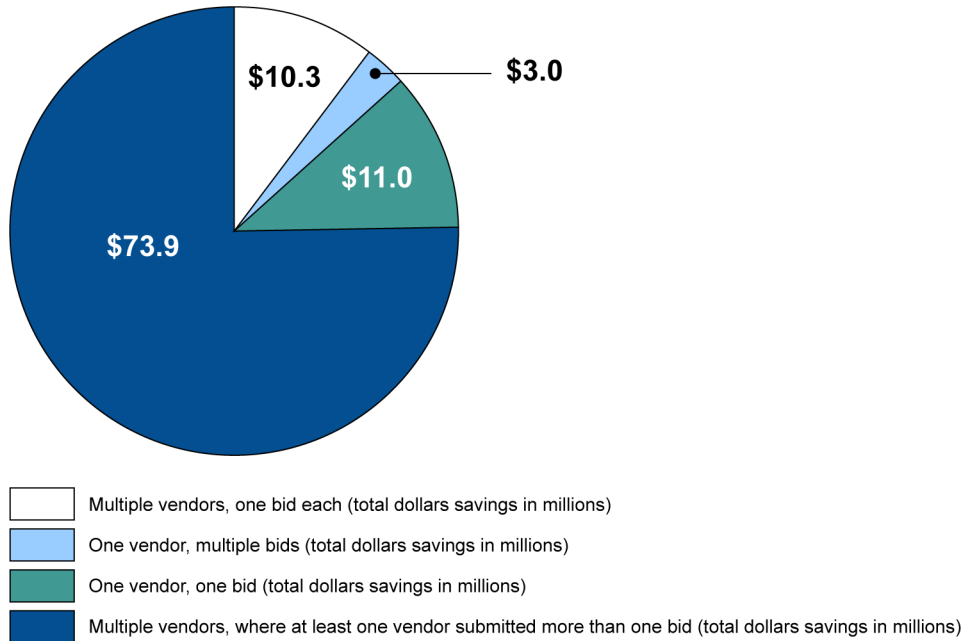
Agencies cite savings as one of the benefits of reverse auctions.²⁸ Although the agencies in our review stated that they do not publicly report the savings, they use the information—provided by FedBid—to assess the potential costs and benefits of reverse auctions. Savings information could also be used to determine whether to increase use of reverse auctions and to make decisions about what types of products or services are appropriate for that technique. FedBid calculates the savings by determining the difference between the government's independent cost estimate (which becomes the auction target price) and the final award price. Agency officials stated that savings can be calculated using multiple methods. According to a DLA official, for its reverse auctions, DLA calculates savings in some situations by calculating the difference between the award price and the auction's first bid.

Using FedBid's approach, savings from fiscal year 2012 reverse auctions for the Army, DHS, DOI, and VA totaled more than \$98 million.²⁹ See figure 11 for calculated savings based on the level of interactive bidding.

²⁸In 2011, we reported that many federal agencies cited reverse auctions as a means of achieving the cost savings goals established by Office of Management and Budget. See GAO, *Federal Contracting: OMB's Acquisition Savings Initiative Had Results, but Improvements Needed*, [GAO-12-57](#) (Washington D.C.: Nov. 15, 2011).

²⁹This calculation excludes reverse auctions where the award price was greater than the target price. Approximately 11 percent of reverse auctions in fiscal year 2012 resulted in award prices that exceeded the target price.

Figure 11: Selected Agencies Value of Estimated Savings By Number of Bids and Bidders, Fiscal Year 2012



Source: GAO analysis of FedBid data.

Note: The graphic depicts calculated savings for Army, DHS, DOI, and VA.

However, it is also unclear whether savings due to reverse auctions are accurate. For example, the estimated savings may be too high since it includes \$24 million in savings from auctions where vendors did not bid against each other to drive prices lower. Additionally, the accuracy of the calculated savings depends on the validity of the agency's target price. Based on our contract file reviews, we found that most contracting officers relied on their market research or government independent cost estimate to establish the target price. However, our analysis shows that the target price may have been set too low in some cases, because in 1,111 auctions that had interactive bidding among vendors in fiscal year 2012, the final award price was higher than the target price. For example, VA conducted a reverse auction to obtain medical equipment and 4,418 vendors were notified. For this reverse auction, two vendors submitted a total of eight bids, all of which were higher than the target price. A contracting official stated that since it was best value procurement, the lowest bid was accepted even though the bid was above the target price.

Agencies Lack Data to Independently Evaluate Fees Paid and in Some Cases Pay Two Fees

Four of the agencies we reviewed do not collect their own data, but rather rely on FedBid to identify their reverse auction activity.³⁰ We found that these agencies do not track how much they pay in reverse auction fees. Without independently collecting or verifying this information, agencies are not able to independently assess the cost effectiveness of reverse auctions.³¹ In addition, we found that agencies sometimes pay two sets of fees when using an existing contract vehicle in conjunction with a reverse auction. When an agency limits a reverse auction to a group of vendors under a certain contract vehicle, the agency can pay one fee for the auction and a separate fee for the use of the contract vehicle. For the agencies in our review, 47 percent of acquisitions using reverse auctions in fiscal year 2012 were ordered under pre-existing contracts resulting in \$6.5 million in reverse auction fees paid to FedBid. For example, for reverse auctions resulting in orders under Schedule contracts, the selected agencies in fiscal year 2012 paid \$1.3 million to GSA and VA for the use of pre-existing contracts and another \$2.8 million to FedBid in reverse auction fees.

Regulations and Guidance Do Not Comprehensively Address Reverse Auctions

The degree to which agencies are able to maximize the benefits of reverse auctions are hindered by a lack of comprehensive government-wide regulations and guidance. Standards for internal control in the federal government identify the need for documenting policies and procedures to ensure appropriate measures are taken to address risk.³² Accordingly, the federal government publishes uniform policies and procedures for federal acquisitions in the FAR, which provides guidance to federal agencies and that the public, to include vendors, may read to better understand the federal acquisition process. However, as noted above, the FAR does not specifically address reverse auctions. Agencies have developed their own guidance, which generally encourages the use of reverse auctions for certain types of procurements and highlights the

³⁰As discussed above, DLA collects summary level information on its reverse auction activity from its buying commands.

³¹While agencies generally do not track the reverse auction fees they pay, pursuant to FedBid's GSA Schedule contract, federal agency buyers utilizing FedBid's reverse auction services reserve the right to pay the transactional fee directly to FedBid. We found that the VA in some instances asked FedBid for information regarding the fees paid on specific reverse auctions.

³²See GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: Nov. 1999).

benefits of competition and savings from reverse auctions. But most agency guidance does not provide contracting officers with information on what to do in certain situations, for example, when only one vendor submits a bid. Only one agency out of five—VA—addresses what action should be taken when auctions fail to generate interactive bidding, but even then only requires that contracting officers document that occurrence in their contract files.

VA has taken action to gain greater insight into its use of reverse auctions. In an effort to determine the effect of reverse auctions on the VA supply chain, in March 2012 the VA Senior Procurement Executive halted the use of reverse auctions until an assessment of their effect could be completed. Subsequently, in April 2012, VA issued guidance requiring contracting activities to develop internal controls and standard operating procedures to establish independent oversight of reverse auction procurements, such as determining savings and fees paid. In conducting our file reviews, we found examples of cases where the contract files are now including this information. DLA, which manages its own reverse auction activity, independently collects summary information from its buying commands on use and savings obtained.

We found agency officials and vendors were uncertain about how reverse auctions fees are paid. For example, an Army contracting official incorrectly believed the vendors are charged the fee by FedBid, and another Army official stated that vendors may be confused about fees charged by FedBid, with some vendors believing they are paying the reverse auction fee, even though it is the procuring agency that does so. In another case, an Army procurement official told us he believed that if an auction does not generate any savings, FedBid would not charge a fee. However, we found that in fiscal year 2012, the selected agencies paid fees in 33 percent of auctions that did not generate any savings. Industry representatives also told us that their members were uncertain who pays the auction fee (it is paid by the ordering agency to the vendor, who is later invoiced by FedBid).

Confusion also exists about how reverse auctions are managed. Several vendors stated that FedBid's interface creates an additional layer between the vendor and the end user that can inhibit their efforts to clarify details in the solicitation—such as the type of material an agency requires—that are important in setting a bid price. While questions can be submitted through FedBid, some vendors told us their questions concerning the requirements are sometimes ignored if they do so. In fact, although vendor questions are posted on the FedBid website, it is the sole responsibility of the contracting officer—not FedBid—to respond to

them.³³ Further, some contracting officers incorrectly thought that FedBid's system only invited GSA Schedule holders currently registered with FedBid to submit bids. However, according to FedBid officials all GSA Schedule holders are automatically invited to bid, but must register with FedBid to submit bids. An agency official stated that vendors had concerns over security and privacy. Another agency official added that some vendors did not want to register with another contractor, which can reduce the level of competition and may not result in lower prices. Additionally, several vendors expressed concerns that the reverse auction system usually identifies the lowest bidder and is awarded the contract. In fact, it is the contracting officer's responsibility to award the contract and, as discussed above, we estimated that about a quarter of the auctions did not result in awards to the lowest bidder.

Government acquisition officials and vendors told us that government-wide guidance on the use of reverse auctions would be useful in clearing up some of the confusion about the role that reverse auctions play in the acquisition process. OFPP is responsible for providing overall direction for government-wide procurement policies, regulations and procedures, and to promote economy, efficiency, and effectiveness in acquisition processes. OFPP officials told us that in 2012 they requested agencies to submit any existing guidance they had, but have yet to determine their next step. The lack of government-wide guidance addressing the use of reverse auctions and the confusion within the vendor community about the process may limit the potential benefits from the use of reverse auctions.

Conclusions

Recent trends clearly indicate that agencies' use of reverse auctions is on the rise. Because the FAR is silent on reverse auctions, agencies are left to decide when and how to use them. While most reverse auctions have been used to acquire commercial items of relatively small dollar value, this is by no means the case across the board. And some agencies are now considering expanding their use of reverse auctions to buy more

³³We also note that there may be confusion regarding the use of reverse auctions in the context of other contracting methods. For example, a bid protest was filed with GAO regarding a reverse auction conducted by the Army where it was unclear from the solicitation whether it was an invitation for bids, in which case award would be made to the lowest-priced bidder, or a request for quotations, in which case award would be made on a cost/technical trade-off basis. The Army canceled the solicitation to clarify the basis for award. Kingdomware Technologies, B-406966.3, Nov. 27, 2012.

services and for complex auctions. Further, some agencies are directly encouraging use of reverse auctions for certain procurements without full information about whether they are, in fact, gaining the intended benefits from the auctions in terms of competition and savings.

Confusion about the functions and responsibilities of the reverse auction contractor and the government, and a lack of transparency regarding the fees the contractor is charging, suggests that guidance is needed. We found confusion about who is making final award determinations and the basis for those determinations. Further, some vendors expressed concern that they were not able to contact the contracting officer directly with questions pertinent to a given requirement. And while we found that the contractor did not charge a fee in about 20 percent of fiscal year 2012 auctions, it is troubling that agencies are not aware of the fees they are paying—including paying more than one fee under certain circumstances. More transparency about the reverse auction fees could help contracting officers determine whether use of an auction is the best tool for a given procurement.

Certain issues that are not addressed by agencies and could be included in government-wide guidance are whether reverse auctions should

- be limited to commercial items;
- be used only for simple services acquisitions; and
- be used only for items of a relatively low dollar value (\$150,000 or less).

In addition, factors that could be considered in government-wide guidance to help ensure that the intended benefits of reverse auctions are maximized include:

- steps, if any, contracting officers should take when only one bid is received;
- factors contracting officers should consider when deciding whether to use a reverse auction to place orders under certain contract vehicles, such as the GSA Schedule; and
- whether contracting officers should be urged to examine whether the lowest price, plus any applicable fee(s), actually results in a savings below the target price when deciding to follow through with an award.

Recommendations for Executive Action

To help mitigate confusion about the use of reverse auctions in federal acquisitions, we recommend that the Director of the Office of Management and Budget take the following two actions:

(1) Take steps to amend the FAR to address agencies' use of reverse auctions.

(2) Issue guidance

- advising agencies to collect and analyze data on the level of interactive bidding and, where applicable, fees paid, to determine the cost effectiveness of using reverse auctions, and
- disseminating best practices from agencies on their use of reverse auctions related to maximizing competition and savings.

Agency Comments and Our Evaluation

We provided a draft of this report to OMB, DHS, DOD, Interior, VA, and GSA. We received e-mail and oral comments from OMB. We received minor technical comments from DOD, DHS, and Interior which were incorporated as appropriate. In technical comments, DOI officials stated that the department has benefited from reverse auctions and generally supports a FAR revision and the need for government guidance. We received e-mails from VA and GSA noting that they had no comments.

Senior OMB staff stated that they generally agreed with our recommendations. While they stated that many of the issues we identified may be more suited to management guidance than regulatory coverage, they agreed that FAR coverage should be considered. They indicated that, before taking concrete steps to amend the FAR, they would discuss our findings and conclusions with the FAR and Chief Acquisition Officers Councils.

We are sending copies of this report to interested congressional committees; the Director of the Office of Management and Budget; the Secretaries of Defense, Homeland Security, the Interior, and Veterans Affairs; and the Administrator of the General Services Administration. The report also is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have questions regarding this report, please contact me at (202) 512-4841 or MackinM@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.

A handwritten signature in black ink that reads "Michele Mackin". The signature is written in a cursive, flowing style.

Michele Mackin, Director
Acquisition and Sourcing Management

List of Requesters

The Honorable Thomas R. Carper
Chairman
The Honorable Tom A. Coburn, M.D.
Ranking Member
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Sam Graves
Chairman
Committee on Small Business
House of Representatives

The Honorable Jeff Miller
Chairman
Committee on Veterans' Affairs
House of Representatives

The Honorable John Mica
Chairman
Subcommittee on Government Operations
Committee on Oversight and Government Reform
House of Representatives

The Honorable Mike Coffman
Chairman
Subcommittee on Oversight and Investigations
Committee on Veterans' Affairs
House of Representatives

The Honorable James Lankford
House of Representatives

Appendix I: Scope and Methodology

Our objectives were to determine (1) what agencies are buying through reverse auctions and trends in their use; (2) how agencies are conducting reverse auctions; and (3) the extent to which the potential benefits of reverse auctions are being maximized.

To determine what agencies are buying through reverse auctions and trends in their use, we identified the agencies that conducted the greatest number of reverse auctions in fiscal year 2012 by reviewing contract award information in Federal Business Opportunities (FedBizOpps.gov).¹ The award information identifies when reverse auctions were used; however, not all contract award actions are required to be announced in FedBizOpps. Over 99 percent of the reverse auctions for fiscal year 2012 listed in FedBizOpps showed that the agencies used the same contractor, FedBid, Inc. (FedBid),² to conduct their reverse auctions. Because the federal agencies did not maintain the level of detailed information needed for our review, we obtained reverse auction data from FedBid. We used this data to: (1) confirm that the Departments of the Army (Army), Homeland Security (DHS), the Interior (DOI), and Veterans Affairs (VA) were primary users of reverse auctions; (2) determine the types of products and services acquired by these agencies; (3) compute the fees charged by FedBid for its services; and (4) analyze the savings. We used the data for Army, DHS, DOI, and VA to determine how agencies used reverse auctions in their acquisitions; these agencies comprised approximately 69 percent of government-wide reverse auction activity based on FedBid data. By relying on the FedBizOpps data, we also selected the Defense Logistics Agency (DLA) for examination because it had the greatest number of reverse auctions that did not use FedBid. Together, these five agencies represented approximately 70 percent of government-wide reverse auction activity during fiscal year 2012 based on FedBid and FedBizOpps data.³ We were not able to perform detailed analysis of DLA data for fiscal year 2012, because the agency collected

¹FedBizOpps.gov is the single point of entry where government business opportunities greater than \$25,000 can be accessed electronically by the public. However, not all contract award actions are required to be published in FedBizOpps. For example, exceptions apply for certain orders placed under indefinite-delivery or federal supply schedule contracts. Federal Acquisition Regulation (FAR) § 5.301(b).

²FedBid, Inc., located in Vienna, Virginia, is a provider of electronic commerce services, which includes online reverse auctions.

³Other agencies that use reverse auctions include the Departments of Justice, Navy, and State.

only summary level information. Agency officials told us that providing the data for each auction would require reviewing the contract file to determine whether a reverse auction had been used. We determined that it would not be good use of DLA’s resources to conduct that review. However, we interviewed DLA officials and obtained their summary level information to assess the agency’s use of reverse auctions.

To determine the reliability of the data obtained, we selected a random sample of all contract files for acquisitions where reverse auctions were used in fiscal year 2012 for the four agencies and compared the data obtained by the service provider, FedBid, with the information contained in the contract files and determined that the data was sufficiently reliable for our purposes. Table 1 shows the number of contract files reviewed at each of the four selected agencies. We relied on FedBid to determine if a vendor used automatic-rebid to lower its original bid.⁴ According to FedBid officials, automatic-rebids are not counted as new bids but are considered part of the original bids. The use of automatic-rebids information was not included in the contract files and therefore, we were not able to independently verify this information.

Table 2: Total Number of Reverse Auctions and Sample Sizes at Four Selected Agencies

Agency	Number of reverse auctions	Sample Size
Department of the Army	6,404	42
Department of Homeland Security	2,576	11
Department of the Interior	3,336	25
Department of Veterans Affairs	7,372	41
Total	19,688	119

Source: FedBid data and GAO presentation.

We randomly selected 119 reverse auctions from the set of all auctions conducted in fiscal year 2012 by the Army, DHS, DOI, and VA. The results of our sample are generalizable to the entire population of 19,688 reverse auction conducted at the four agencies during fiscal year 2012. All percentage estimates from the file review have margins of error at the 95 percent confidence level of plus or minus 7 percentage points or less,

⁴According to FedBid officials, vendors can elect to use an automatic-rebid function which allows the vendor to set a minimum price and its bids will automatically be lowered to remain the winning bidder until the bid reaches the pre-set minimum bid.

unless otherwise noted. Because we followed a probability procedure based on random selections, our sample is only one of a large number of samples that we might have drawn. Since each sample could have provided different estimates, we express our confidence in the precision of our particular sample’s results as a 95 percent confidence interval (e.g., plus or minus 7 percentage points). This is the interval that would contain the actual population value for 95 percent of the samples we could have drawn.

The sample included a mix of products and services, single and multiple vendors as shown in tables 2 and 3.

Table 3: Types of Contracts Included in our Sample

	Order under Army Computer Hardware Enterprise Software and Solutions	Order under General Services Administration Schedule	Order under Veterans Affairs Schedule	Order under Department of Homeland Security First Source	Order under NASA Solutions for Enterprise-Wide Procurement IV	Open Market	Total
One vendor	4	6	1	1	1	11	24
Multiple vendors	4	21	3	5	3	59	95
Total	8	27	4	6	4	70	119

Source: FedBid data and GAO presentation.

Note: FedBid defines “Open Market” as a reverse auction for an order not conducted under an existing contract vehicle.

Table 4: Types of Products and Services Included in our Sample

Products and services	Number of auctions
Tractors	1
Agricultural Machinery and Equipment	2
Construction, Mining, Excavating, and Highway Maintenance Equipment	4
Materials Handling Equipment	1
Refrigeration, Air Conditioning, and Air Circulating Equipment	2
Fire Fighting, Rescue, and Safety Equipment; and Environmental Protection Equipment and Materials	3
Pipe, Tubing, Hose, and Fittings	1
Measuring Tools	1
Hardware and Abrasives	1
Prefabricated Structures and Scaffolding	1
Lumber, Millwork, Plywood, and Veneer	1
Communication, Detection, and Coherent Radiation Equipment	3

Products and services	Number of auctions
Electrical and Electronic Equipment Components	3
Alarm, Signal and Security Detection Systems	1
Medical, Dental, and Veterinary Equipment and Supplies	22
Instruments and Laboratory Equipment	4
Chemicals and Chemical Products	1
Training Aids and Devices	2
Information Technology (ADP) Equipment (Including Firmware), Software, Supplies and Support Equipment	36
Furniture	5
Household and Commercial Furnishings and Appliances	1
Food Preparation and Serving Equipment	2
Office Supplies and Devices	1
Recreational and Athletic Equipment	2
Cleaning Equipment and Supplies	2
Clothing, Individual Equipment, and Insignia	1
Toiletries	1
Miscellaneous	3
IT and Telecom	2
Social Services	1
Quality Control, Testing and Inspection Services	1
Maintenance, Repair, and Rebuilding of Equipment	2
Installation of Equipment	2
Lease or Rental of Equipment	2
Maintenance, Repair or Alteration of Real Property	1
Total	119

Source: FedBid data and GAO presentation.

To determine how agencies are conducting reverse auctions and to understand how contracting officers conducted market research, determined government estimates, and made source selections, we used the same random sample of contract files for acquisitions that used reverse auctions as discussed above. We obtained documentation from the contract files concerning the independent government cost estimate and market research information to determine how the auction's target price was established. We also requested information on whether small business participants were considered, why decisions were made to use reverse auctions, the technical and price evaluation, and the source selection decisions. We also determined if the contract was awarded to the lowest bidding vendor and if the file contained documentation showing the estimated savings and fees for using reverse auctions. We did not systematically assess the relationship between auction outcomes and the

selected acquisition strategy or specific design features. We also met with officials from the reverse auction service provider, FedBid, to discuss their roles and responsibilities during the reverse auction process.

To determine to what extent agencies are maximizing the potential benefits of reverse auctions, we analyzed the data obtained from FedBid, identifying the government's target price for the product or service, the number of vendors and bids for each auction, the lowest bid submitted, the savings estimated from the use of reverse auctions, and the type of contract used to acquire the products and services. We also computed the fees charged by FedBid. We also reviewed and analyzed, if available, government-wide and the five agencies' regulations, policies and guidance assessing the use of reverse auctions. We met with government acquisition officials, including officials from the Office of Management and Budget's Office of Federal Procurement Policy, and also contracting officers, and small business and competition officials at the selected agencies. We also spoke with members of the American Small Business Chamber of Commerce representing small government contractors and with officials from the Coalition for Government Procurement representing both small and large federal contractors to obtain their members position on the federal government's use of reverse auctions, both located in Washington, D.C.⁵

We conducted this performance audit from November 2012 to December 2013 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

⁵The American Small Business Chamber of Commerce is an outgrowth of the National Association of Small Business Contractors—a trade association representing America's small business federal contractors. The Coalition for Government Procurement is a national trade association representing commercial contractors in the federal market.

Appendix II: Reverse Auctions Used to Place Orders under Existing Contracts for Selected Agencies, Fiscal Year 2012

	Characteristics	Army	DHS	DOI	VA	Total
Army Computer Hardware Enterprise Software and Solutions	Provides a flexible procurement strategy through which Army users may procure commercial off the shelf information technology hardware, software and services via an e-commerce based process. Does not charge a fee.	932		31		963
Department of Homeland Security (DHS) FirstSource	Provides DHS users with ability to order commercially available information technology commodities, solutions, and value-added reseller services through multiple award indefinite delivery/indefinite quantity contracts with vendors in certain small business socioeconomic categories. Does not charge a fee.		1,029			1,029
DHS Wide Tactical Communications	Provides DHS users ability to purchase tactical communications commodity products, infrastructure, and services via a multivendor indefinite delivery/indefinite quantity contract vehicle. Does not charge a fee.		26			26
General Services Administration and Veterans Affairs Schedule ^a	Provide commercial products and services at varying prices and a streamlined process to obtain products and services at prices associated with volume buying. Charge users a 0.75 and a 0.5 percent fee, respectively.	710	567	1,060	3,518	5,855
NASA Solutions for Enterprise-Wide Procurement IV	Provides all federal agencies information technology products via a government-wide acquisition contract that includes 38 competed prime contract holders. Charges users a 0.45 percent fee.	2	2	759	353	1,116
National Institutes of Health Electronic Commodities Store III	Provides users ability to purchase hardware, software, networking and telecommunications equipment, scientific research stations, warranties and maintenance service. Charges a .50 percent fee with \$10,000 cap per delivery order.	17		2		19
Other existing contracts used but not specifically identified. An agency fee may or may not be charged		66	167	6	10	249
Total		1,727	1,791	1,858	3,881	9,257

Source: FedBid data and GAO analysis and presentation.

^aThe VA operates its portion of the Schedule program under a delegation of authority from GSA.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

In addition to the contact named above, Katherine Trimble, Assistant Director; Russ Reiter; Carl Barden; Virginia (Jenny) Chanley; Dayna Foster; Kristine Hassinger; Georgeann Higgins; Julia Kennon; Kenneth Patton; Roxanna Sun; Bob Swierczek; and Jocelyn Yin made key contributions to this report.

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