

United States Government Accountability Office Report to Congressional Requesters

July 2018

REVERSE AUCTIONS

Additional Guidance Could Help Increase Benefits and Reduce Fees

GAO Highlights

Highlights of GAO-18-446, a report to congressional requesters

Why GAO Did This Study

Reverse auctions are intended to result in enhanced competition, lower prices, and reduced acquisition costs. GAO has previously found that agencies did not maximize these benefits.

GAO was asked to review federal agencies' use of reverse auctions. This report examines (1) the use of reverse auctions and the extent to which selected agencies achieved benefits, such as competition; and (2) the extent to which selected agencies had insight into reverse auction fees.

GAO collected and analyzed data on federal agencies' use of reverse auctions from fiscal years 2013 to 2017. For five of the largest users of reverse auctions-the Departments of the Army, Homeland Security, Interior, Navy, and State—GAO reviewed documentation for 40 auctions that resulted in contract awards in fiscal year 2016 (the most recent data available when the review began), and that were selected to obtain a mix of dollar values and levels of competition, among other factors. GAO also interviewed contracting officials and analyzed agency guidance.

What GAO Recommends

GAO is making a total of 21 recommendations to the five agencies in GAO's review, including that agencies inform contracting officials about fees to better compare available provider options. Defense, State, and Interior concurred with this recommendation. DHS did not, stating that contracting officials should obtain this knowledge during market research. GAO believes managing this information centrally could eliminate confusion and minimize duplicate efforts.

View GAO-18-446. For more information, contact Timothy J. DiNapoli at (202) 512-4841 or dinapolit@gao.gov.

REVERSE AUCTIONS

Additional Guidance Could Help Increase Benefits and Reduce Fees

What GAO Found

Federal agencies' use of reverse auctions—a process where vendors bid against each other with lower prices to win government contracts—declined between fiscal years 2013 and 2017, from about 34,000 to 19,000 auctions valued at about \$1.9 billion and \$1.5 billion, respectively. In fiscal year 2016, the year GAO studied in detail, nearly three-quarters of auctions at the agencies GAO reviewed resulted in iterative bidding—when there are multiple bidders and at least one bidder submits more than one bid during the auction (see figure).



Source: GAO analysis of Compusearch, FedBid, and General Services Administration data. | GAO-18-446

Contracting officers said reverse auctions reduce administrative burden, especially during peak contracting times. Reverse auctions data indicate that selected agencies may have saved more than \$100 million in 2016.

The five agencies GAO reviewed indirectly paid about \$13 million in fees to reverse auction providers through awardees in 2016. However, 28 of the 30 contracting officials GAO interviewed did not fully understand how fees were set. Further, in 2016, agencies GAO reviewed indirectly paid approximately \$3 million in fees for reverse auctions for which a fee-free alternative was likely available. None of the guidance GAO reviewed provided sufficient information for contracting officers to assess the appropriateness of these fees (see table). Without better information, contracting officials may be offsetting potential savings by paying more in fees than necessary for the level of services required.

GAO Assessment of Reverse Auction Guidance at Selected Agencies					
Agency	Addresses contracting officials' role in understanding and assessing fees	Details fee structure for reverse auction platforms used by the agency	Requires or suggests consideration of fee- free options when appropriate		
Army	•	÷	÷		
Navy	0	Ŷ	÷		
Homeland Security	•	0	0		
Interior	•	0	0		
State	0	0	0		

Legend: • = addressed in agency guidance; • = partially addressed in agency guidance or addressed only for one or more agency components; • = not addressed in agency or component guidance Source: GAO analysis of agency guidance. | GAO-18-446

Contents

Letter		1
	Background	5
	Federal Agencies' Use of Reverse Auctions Decreased between Fiscal Years 2013 and 2017	12
	Agencies Obtained Benefits of Enhanced Competition and Reduced Administrative Burden, but Savings Estimates Should be Viewed with Caution Agency Guidance and Contracting Approaches Lack Sufficient	18
	Information to Ensure Good Business Decisions and Appropriate Contract Oversight	29
	Conclusions	41
	Recommendations	42
	Agency Comments and Our Evaluation	45
Appendix I	Defense Logistics Agency and Army	
	Computer Hardware Enterprise Software	
	and Solutions Reverse Auctions	49
Appendix II	Agency Policies and Guidance Reviewed	50
Appendix III	Objectives, Scope, and Methodology	52
Appendix IV	Comments from the Department of Defense	62
Appendix V	Comments from the Department	
	of Homeland Security	65
Appendix VI	Comments from the Department	
	of the Interior	69

Appendix VII	Comments from the Department of State	71
Appendix VIII	Comments from the Department of Veterans Affairs	74
Appendix IX	GAO Contact and Staff Acknowledgments	76
Tables		
	Table 1: Providers That Conducted Reverse Auctions for Federal Agencies between Fiscal Years 2013 and 2017 Table 2: Reverse Auction Results for Selected Agencies in Fiscal	8
	Year 2016 Table 3: Competition Rates for Almost 15,000 Open Market and	21
	Existing Contract Vehicle Reverse Auctions for Selected Agencies in Fiscal Year 2016	23
	Table 4: Fiscal Year 2016 Reverse Auctions Estimated Savings for Selected Agencies	27
	Table 5: Typical Fee Structures for Reverse Auction Providers Used by Selected Agencies	31
	Table 6: Indirect Reverse Auction Fees Paid for Auctions with Only One Bidder as a Percentage of All Indirect Reverse Auction Fees Paid by Selected Agencies in Fiscal Year	
	2016 Table 7: GAO Assessment of Characteristics of Reverse Auction	33
	Guidance for Selected Agencies GAO Reviewed Table 8: GAO Assessment of Characteristics of Indirect Fee	35
	Arrangements with FedBid for Selected Agencies GAO Reviewed as of April 2018	38
	Table 9: Agency Policies and Guidance Reviewed	50
	Table 10: GAO-Identified Reverse Auction Providers	53
	Table 11: Non-generalizable Sample of 2016 Auctions at Five	
	Selected Agencies GAO Reviewed	59

Figure 1: Comparison between Traditional and Reverse Auctions6Figure 2: Example of Indirect Fee Payment Process for Reverse
Auctions9

Figure 3: Number and Dollar Value of Government-wide Awarded	
Reverse Auctions from Fiscal Years 2013 to 2017	13
Figure 4: Annual Use of Reverse Auctions at Six Selected	
Agencies from Fiscal Years 2013 to 2017	14
Figure 5: Selected Agencies' Use of Reverse Auctions for Awards	
Above and Below \$150,000 in Fiscal Year 2016	17
Figure 6: Extent of Reverse Auction Competition for Selected	
Agencies in Fiscal Year 2016	19
Figure 7: Percentage of Fiscal Year 2016 Reverse Auctions	
Awarded in Fiscal Quarter 4	26

Abbreviations

CHESS DHS DLA FAR GSA IT OFPP	Computer Hardware Enterprise Software and Solutions Department of Homeland Security Defense Logistics Agency Federal Acquisition Regulation General Services Administration information technology Office of Federal Procurement Policy
••	Office of Federal Procurement Policy
OMB	Office of Management and Budget
SEWP	Solutions for Enterprise-Wide Procurement
VA	Department of Veterans Affairs

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

U.S. GOVERNMENT ACCOUNTABILITY OFFICE

441 G St. N.W. Washington, DC 20548

July 18, 2018

The Honorable Mac Thornberry Chairman Committee on Armed Services House of Representatives

The Honorable Phil Roe Chairman Committee on Veterans' Affairs House of Representatives

Federal agencies bought at least \$1.5 billion of goods and services in fiscal year 2017 using reverse auctions—a process where vendors are encouraged to revise their prices downward during the bidding process until the auction closes. Reverse auctions are intended to leverage enhanced competition, enable agencies to obtain lower prices, and reduce acquisition costs. We have previously found that agencies had not maximized these intended benefits. Specifically, in December 2013, we found that over one-third of fiscal year 2012 reverse auctions we reviewed had no iterative bidding—a hallmark of reverse auctions when there are multiple bidders and at least one bidder submits more than one bid during the auction.¹ In addition, almost half of the reverse auctions were used to obtain items from existing contract vehicles that in some cases resulted in agencies paying two fees—one to the agency that manages the contract vehicle and one to the reverse auction provider for use of its services.

You asked us to review federal agencies' use of reverse auctions. This report examines (1) federal agencies' use of reverse auctions between 2013 and 2017, (2) the extent to which selected agencies achieved benefits through reverse auctions, and (3) the extent to which selected agencies had insight into reverse auction fees.

To answer our objectives, we collected data on federal agencies' use of reverse auctions from eight providers that operate reverse auction

¹GAO, *Reverse Auctions: Guidance Is Needed to Maximize Competition and Achieve Cost Savings*, GAO-14-108 (Washington, D.C.: Dec. 9, 2013.) In the December 2013 report, we referred to iterative bidding as interactive bidding, and observed that interactive bidding helps agencies maximize competition.

platforms. We identified these providers by reviewing our past work in this area, reviewing federal procurement solicitation and award information, conducting interviews with agency officials, and conducting internet searches about federal use of reverse auctions.² We also used these data to identify and select six of the largest users of reverse auctions, by number of auctions and dollar value, to include in our review—the Departments of the Army, Homeland Security (DHS), the Interior, the Navy, State, and Veterans Affairs (VA).

To examine federal agencies' use of reverse auctions between 2013 and 2017, we collected data on reverse auction use from the eight reverse auction providers, which include both government agencies and private companies, to identify the number and dollar value of awarded reverse auctions.³ We present the dollar value from fiscal years 2013 through 2017 in constant fiscal year 2017 dollars using the Congressional Budget Office's June 2017 Gross Domestic Product price index projection-the most recent projection available at the time of our analysis. For this analysis, we excluded data from two of the eight providers we identified, Procurex and the Army Computer Hardware Enterprise Software and Solutions (CHESS) Information Technology (IT) e-mart reverse auction platform. In 2017, according to data we obtained from Procurex, the Defense Logistics Agency's (DLA) total auction activity was worth roughly \$1 billion, and according to data from Army CHESS, the total auction activity through its platform was worth about \$91 million. However, we cannot determine what portion of these auctions resulted in contract awards. These providers do not track which reverse auctions actually result in contract awards, and the agencies using these providers' platforms (primarily DLA and Army) do not require this information for their own reporting and oversight purposes. Since we did not include auctions that did not result in contract awards in our analysis, for purposes of this report, all references to reverse auction use exclude auctions conducted with these providers. For those providers that do

²Although it is possible there are other reverse auction providers for federal agencies, based on the steps we took we believe we have identified the largest ones used by the agencies included in our review.

³Throughout this report, we are referring to fiscal years when describing our data analysis, unless a specific month and year are indicated. We do not use fiscal years when discussing and citing to applicable law and policies. In addition, we describe auctions that resulted in a contract award between the agency and a vendor, according to provider data, as "awarded reverse auctions". When referring to "reverse auction use" or "reverse auctions conducted", we are referring to the number of and dollar value of awarded reverse auctions, which is based on the dollar amount of the bid selected for award.

track which reverse auctions result in contract awards, about half of auctions conducted in 2016 did not result in contract awards. We have included information on auctions conducted by DLA and using Army CHESS IT e-mart in appendix I. Of the six providers with awarded auction data, FedBid accounted for almost all auctions and the vast majority of dollars agencies awarded using reverse auctions from 2013 through 2017.

In addition to data from 2013 through 2017, for five of the six selected agencies, we collected and analyzed more detailed data, such as information on the types of goods and services purchased and the type of contracting vehicle used, on auctions conducted and awarded in fiscal year 2016—the most recent year of detailed data available at the time we began our review. Our analysis of fiscal year 2016 auctions included almost 15,000 auctions with a total awarded value of approximately \$910 million. We did not include VA in our detailed analysis of 2016 auctions because the agency conducted few auctions in that year. We assessed the reliability of the reverse auction provider data by comparing it with information contained in selected contract files and by reviewing it for issues such as missing data elements, duplicates, and outliers, among other steps, and determined they were sufficiently reliable for the purposes of reporting on federal agencies' use of reverse auctions.

To identify the extent to which selected agencies achieved the benefits of reverse auctions, we analyzed the 2016 data we collected to identify factors related to competition and savings. To obtain a more in-depth understanding of the benefits achieved by selected agencies, we selected and reviewed a nongeneralizable selection of 40 auctions awarded from 2016 reverse auctions across the five agencies. The 40 auctions included 12 Army auctions, 7 DHS auctions, 5 Interior auctions, 10 Navy auctions, and 6 State auctions, and roughly reflect each agency's relative use of reverse auctions. These contracts were chosen to obtain variety across a number of characteristics, such as dollar value, goods and services being purchased, and reverse auction platforms used. The 40 auctions selected generally reflect the extent to which auctions were conducted using various reverse auction platforms, with FedBid, as the largest provider, accounting for the majority of auctions. Therefore, of the 40 auctions, 33 were FedBid auctions, 4 were General Service Administration (GSA) Reverse Auctions, 2 were Army CHESS IT e-mart auctions, and 1 was conducted using Compusearch. For each of the selected case studies, we reviewed contract documentation related to the reverse auction, such as documentation of market research, pre-auction cost estimates (e.g. independent government cost estimates), price negotiation memoranda,

and contract award documents. In addition, to obtain contracting officials' perspectives on the benefits of reverse auctions, we interviewed the contracting officials involved with 35 of these 40 auctions. The remaining five knowledgeable officials were no longer with the agencies or were not available for interviews. We did not compare reverse auctions to alternative acquisition methods to compare the relative costs and benefits.

To identify the extent to which selected agencies had insight into reverse auction fees, we analyzed data on indirect fees paid to reverse auction providers in 2016 for the five agencies selected for our review.⁴ We also analyzed contract documentation from the 40 selected auctions to identify the extent to which fee information was available to the contracting officials, and interviewed contracting officials to develop an understanding of their knowledge of the fees related to the auctions. The 40 selected auctions included 33 that incurred an indirect fee, 2 for which the provider waived the fee, and 5 for which no fee applied. We interviewed the contracting officials involved with 30 of the auctions that incurred a fee and 5 of the auctions for which the fee arrangements and the selected agencies' oversight of reverse auctions and their fees, we reviewed contracts between the selected agencies and reverse auction providers as well as other arrangements, including provider terms of service.

We also used a variety of investigative tools and techniques to determine if government officials or commercial and government providers have engaged in potential fraud, waste, abuse, and mismanagement associated with reverse auction use. While the steps we took did not uncover any fraud, waste, abuse, or systemic mismanagement, we cannot definitively state that there is no fraud, waste, abuse, or mismanagement in federal use of reverse auctions.

To assist in answering all of the objectives, we reviewed policies and guidance related to reverse auctions from the Office of Federal

⁴Reverse auctions generally entail two different types of fee arrangements. Indirect fee arrangements, such as those in FedBid contracts, generally stipulate that fees will be paid by the reverse auction awardee to the reverse auction provider. The fee is added to the bids by the reverse auction provider, and when an awardee is selected, the agency's payment to the awardee includes the fee. Agencies may not have visibility into the fee amount unless it is specifically provided by the reverse auction provider. In contrast, direct fees—such as those paid to Procurex—are paid by the agency directly to the reverse auction provider.

Procurement Policy (OFPP) and at the selected agencies and relevant components of those agencies, and we reviewed GAO's *Standards for Internal Control in the Federal Government.*⁵ We compared agencies' practices to these standards. We also interviewed procurement policy officials from the selected agencies and representatives from reverse auction providers. For more information on our scope and methodology, see appendix III.

We conducted this performance audit from January 2017 to July 2018 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. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We conducted our related investigative work from April 2017 to March 2018 in accordance with investigative standards prescribed by the Council of the Inspectors General on Integrity and Efficiency.

Background

How Reverse Auctions	In a traditional auction, the intent is for multiple buyers to bid against one
Work	another by submitting bids to purchase a good or service that is for sale.
	Generally speaking, the bidder offering the highest price receives the item
	for sale and the seller benefits from receiving more money due to
	competition. In contrast, reverse auctions are intended to encourage
	multiple vendors to compete against one another to win a contract from
	the government by lowering the price for which the vendor is willing to sell
	a particular good or service. ⁶ The buyer—typically a contracting official—

⁵See Office of Federal Procurement Policy memorandum, *Effective Use of Reverse Auctions* (June 1, 2015). See GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Washington, D.C.: September 2014). "Guidance" refers to handbooks, memoranda, policy letters, and associated documents that were made available to GAO as of April 2018 and are listed in appendix II.

⁶For the purposes of this report, when vendors compete against each other to win a "contract," that term includes contract awards, job orders or task letters issued under basic ordering agreements, and orders, such as purchase orders. In general, the awarded contracts may stand alone or be awarded under a "vehicle," such as an indefinite-delivery vehicle, which may be a contract (as defined in FAR § 2.101) or "agreement," such as a blanket purchase agreement. We also refer to vendors that have submitted a bid in a reverse auction as "bidders".

then evaluates the technical proposals and bids, and selects a winning vendor—generally the bidder who submitted the lowest price bid with an acceptable proposal—to meet the government's need. Figure 1 compares these two types of auctions.

Figure 1: Comparison between Traditional and Reverse Auctions





Reverse auctions can be opened to any vendor on the open market or can be limited to vendors that hold contracts on existing contract vehicles, such as indefinite-delivery vehicles under which the government has already determined that a specific group of vendors is qualified to sell specific goods or services.⁷ Existing vehicles provide a simplified way to procure commercial products and services. Agencies can use reverse auctions as a tool to further promote competition and lower prices, among other potential benefits. Agencies can use reverse auctions to order from various existing contract vehicles, including:

- The Army's CHESS program. CHESS is the Army's primary source for commercial information technology hardware, software, and services.
- DHS's First Source II. First Source II is a 100 percent small business contract vehicle, specifically designed as a preferred source to acquire commercially available information technology commodities, solutions, and value-added vendor services to support DHS programs.
- **GSA's Federal Supply Schedules program.** The Federal Supply Schedules provide federal agencies a simplified method of purchasing commercial products and services off of multiple schedules, from numerous vendors, at prices associated with volume discount buying.
- National Aeronautics and Space Administration's Solutions for Enterprise-Wide Procurement (SEWP). SEWP allows federal agencies government-wide to purchase from over 140 vendors and offers a wide range of commercial advanced technology products and product-based services.

Reverse auction providers can be private companies or offices within federal agencies, and the providers may provide reverse auction services across the government or to specific agencies. Since we last reported on this issue in December 2013, two federal agencies developed platforms to facilitate reverse auctions through existing contract vehicles, by adapting existing electronic platforms. In July 2013, GSA's Federal Acquisition Service launched its platform, GSA Reverse Auctions, which was built off its e-Buy tool and initially offered reverse auctions for a limited number of GSA and VA Federal Supply Schedule contracts,

⁷An open market auction is one that is typically open to all vendors, not just a designated group of vendors under an existing contract vehicle. Nonetheless, open market auctions might be limited to vendors in a specific socio-economic category, such as small, disadvantaged, or veteran-owned businesses.

expanding to additional schedule contracts and agency-specific multiple award contracts over the following 2 years. In November 2015, GSA Reverse Auctions expanded further to offer open market auctions. In January 2016, Army's CHESS program launched a capability using its IT e-mart to run reverse auctions on certain CHESS contracts. Similarly to when the private sector builds a platform, new government capabilities have costs associated with development and ongoing maintenance. According to GSA officials, development of the reverse auction capability cost approximately \$2 million, and operations and maintenance costs are expected to total about \$650,000 over the next 3 fiscal years. According to CHESS officials, its capability was developed at no additional financial cost under the fixed-price contract for the IT e-mart, although there were opportunity costs because other lower priority actions were delayed. Table 1 includes information about the reverse auction providers we identified in our review.

Provider	Agencies served	Public or private provider
Army Computer Hardware Enterprise Software and Solutions	Army and Department of Defense with limited government-wide options	Public
Compusearch ^a	Government-wide	Private
EnerNOC, Inc.	General Services Administration (GSA), specifically the energy division	Private
FedBid, Inc.	Government-wide	Private
GSA	Government-wide	Public
Procurex	Defense Logistics Agency	Private
Consummate Computer Consultants Systems, LLC	Department of Housing and Urban Development	Private
Weems Design Studio, Inc.	Department of Housing and Urban Development	Private

Table 1: Providers That Conducted Reverse Auctions for Federal Agencies between Fiscal Years 2013 and 2017

Source: Agency and reverse auction provider data. | GAO-18-446

^aCompusearch discontinued marketing its reverse auction platform after it acquired FedBid, Inc. in October 2017.

Reverse auction providers offer differing levels of service, ranging from simply providing a web-based reverse auction platform to a full-service model. Full-service providers may offer services such as creating draft auctions, soliciting vendors to participate, helping create a marketplace of vendors, and encouraging vendor participation for low-bid-count auctions. Agency buyers can select which additional services, if any, to use. FedBid is an example of a full-service provider, whereas Army CHESS provides a self-service web-based reverse auction platform, the IT e-mart. While the government pays some reverse auction providers directly, other reverse auction providers, including FedBid and GSA, collect reverse auction fees through an indirect payment process. Generally, in the indirect payment process, the reverse auction provider adds a fee onto the winning vendor's bid. Then, the agency pays the winning vendor this total amount. In turn, the reverse auction provider collects the fee from the winning vendor (see figure 2).

Figure 2: Example of Indirect Fee Payment Process for Reverse Auctions



Source: GAO analysis of FedBid and General Services Administration documents. | GAO-18-446

Prior GAO Work

In December 2013, we reviewed the use of reverse auctions at four agencies—Army, DHS, Interior, and VA—and found that these agencies steadily increased their use of reverse auctions (in number and dollar value) from fiscal years 2008 to 2012.⁸ For auctions in 2012 across the four agencies, we found:

- Agencies awarded about 95 percent of reverse auctions for \$150,000 or less.
- Information technology goods and services were among the top categories purchased.

⁸GAO-14-108.

	 Products made up about 90 percent of total dollar value of awarded reverse auctions.
	• 47 percent of reverse auctions were for orders from existing contracts.
	80 percent of reverse auction dollars and about 86 percent of reverse auctions were awarded to small businesses.
	In addition, we found that the four agencies in our review did not maximize the potential benefits of reverse auctions—competition and savings. We found that over one-third of reverse auctions in 2012 had no iterative bidding and that it was unclear whether savings calculated for reverse auctions were accurate because cost estimates developed before the auction may have been set too low or too high. In addition, we found that almost half of the reverse auctions were used to obtain items from existing contracts.
	We further noted that there was a lack of comprehensive government-wide guidance and that the Federal Acquisition Regulation (FAR) did not specifically address reverse auctions, resulting in confusion about their use. We recommended 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's OFPP subsequently issued guidance in June 2015 on reverse auctions, and the proposed FAR changes are currently being reviewed prior to being published for public comment.
Government-wide Regulations and Guidance	Prior to 1997, the FAR prohibited agencies from using auctioning techniques. ⁹ In 1997, the FAR was revised to eliminate these prohibitions as part of an overall effort to make the source selection process more innovative, simplify the acquisition process, and facilitate a best value acquisition approach. ¹⁰
	In June 2015, OFPP issued guidance to federal agencies on the effective use of reverse auctions. This memorandum reviewed the benefits of
	⁹ See FAR § 15.610(e)(2)(ii)-(iii) (Oct. 1, 1996). Prohibited techniques included advising an offeror of where its bid stood compared with those of other offerors and otherwise furnishing information about other offerors' prices.
	¹⁰ See 62 FR 51224 (effective Oct. 10, 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.

reverse auctions, offered a set of reminders to help contracting offices maximize the value of this tool, and asked agencies to work with OFPP in identifying and collecting data that can be used to evaluate and improve results. Specifically, the memorandum noted that some of the benefits of reverse auctions are price reductions, enhanced competition, and significant small business participation. In addition, the memorandum noted that reverse auctions are not a "one size fits all" solution and are likely to be most effective in the following circumstances:

- Highly competitive marketplaces
- When requirements:
 - are steady and relatively simple and might otherwise be acquired using either a sealed bid or achieving best value through "low price technically acceptable" source selection criteria; and
 - result in fixed price agreements.

Typically, these circumstances exist in acquisitions for commercial items and simple services that often fall under the simplified acquisition threshold.¹¹

The memorandum reminds agencies that, as with any procurement, market research must be conducted to understand the marketplace and to determine if it is reasonable to assume that the potential benefits of a reverse auction can be achieved. It also notes that agencies should regularly evaluate their experiences with reverse auctions and the effectiveness of existing practices and policies as part of procurement management reviews so that refinements can be made as necessary. The issues addressed in the OFPP memorandum have not yet been incorporated into the FAR.¹² While the FAR does not specifically address

¹¹Office of Federal Procurement Policy memorandum, *Effective Use of Reverse Auctions*, (June 1, 2015). In 2016, the simplified acquisition threshold was generally \$150,000. See 80 FR 38293 (Oct. 1, 2015). In December 2017, the simplified acquisition threshold increased to \$250,000. See 41 U.S.C. § 134 (2018). Although the Department of Defense has issued a class deviation implementing this increase, this change has not yet been implemented in the FAR. See Department of Defense Class Deviation 2018-O00013, Class Deviation—Micro-Purchase Threshold, Simplified Acquisition Threshold, and Special Emergency Procurement Authority (April 13, 2018); FAR § 2.101.

¹²See FAR Case 2015-038, Reverse Auction Guidance. See also Carl Levin and Howard P. Buck McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291, § 824 (Dec. 19, 2014); 10 U.S.C. § 2304 note (2018); DFARS Case 2015-D010 (withdrawn, stating the applicable guidance would be addressed in the FAR under FAR case 2015-038, Reverse Auction Guidance).

	reverse auctions, several provisions facilitate agencies' use of them, such as allowing the use of innovative strategies and electronic commerce. ¹³
Federal Agencies' Use of Reverse Auctions Decreased	We found the value of awarded reverse auctions decreased approximately 22 percent across the government between 2013 and 2017, from about \$1.9 billion to about \$1.5 billion. ¹⁴ Although the number of auctions consistently decreased each year from 2013 to 2017, the dellar value of auctions increased ofter 2015, indicating that some
between Fiscal Years 2013 and 2017	dollar value of auctions increased after 2015, indicating that some individual reverse auctions have been for larger dollar values in the past couple of years (see figure 3).

¹³FAR §§ 1.102-4(e), 4.502.

¹⁴For methodological reasons, this analysis does not include auctions conducted through two providers because they do not track which auctions result in contract awards: therefore, their data cannot be compared to other data we collected. While DLA's use is not included in this analysis, we found the agency's overall use also declined from 2013 to 2017. In 2017, according to data we obtained from Procurex, DLA's total auction activity was worth roughly \$1 billion, and according to data from Army CHESS, the total auction activity through its reverse auction platform was worth about \$91 million. See appendix I for more information on auctions conducted using these providers and appendix III for more information on this analysis.





Source: Compusearch, EnerNOC, FedBid, General Services Administration, and Department of Housing and Urban Development data. | GAO-18-446

Note: This figure depicts only the known number and value of reverse auctions that resulted in contract awards. Because two providers do not capture contract award information, we are unable to determine the total number and value of awarded auctions. Auction value is based on the dollar amount of the bids selected for award.

During this same period, the overall trend in federal contract obligations initially decreased from 2013 through 2015 and then increased overall through 2017—from about \$490 billion in 2013 to \$508 billion in 2017. Hence, since 2013, contracts awarded through reverse auctions have consistently represented less than 0.5 percent of federal contract spending. In addition, almost all auctions and the vast majority of the dollars agencies awarded between 2013 and 2017 resulted from the use of the FedBid reverse auction platform.

We also found that the dollar value of awarded reverse auctions varied from 2013 to 2017 across the six agencies we reviewed, with total reverse auction value greater in 2017 than in 2013 for half of the agencies (DHS, Navy, and State) (see figure 4).





Note: This analysis includes the value of new auctions as well as option periods of contract awards resulting from previous auctions. Reverse auction value is based on the dollar amount of the bids selected for award.

^aIn 2016 and 2017, Veterans Affairs conducted few new auctions. However, the agency exercised option periods on contracts awarded through auctions conducted in 2014 or earlier.

^bThis analysis does not include auctions conducted using the Army Computer Hardware Enterprise Software and Solutions Information Technology e-mart platform in 2016 and 2017 because this provider does not track which auctions result in contract awards. However, we estimate that this analysis includes at least 95 percent of the Army's overall reverse auction award value.

Our analysis indicates that agencies' and components' policies may influence the use of reverse auctions.¹⁵ Specifically, two agencies that experienced substantial reductions in their use of reverse auctions changed their policies so that contracting officers would no longer be required to use reverse auctions. For example, Interior's August 2015

¹⁵Appendix II includes a list of agency- and component-level policies and guidance we reviewed, which we collectively refer to as "agency guidance".

policy rescinded a previous requirement to first consider using reverse auctions for commercial items using simplified procedures above the micro-purchase threshold and below the simplified acquisition threshold.¹⁶ The revised policy encouraged contracting officials to use procurement tools as appropriate, allowing for the use of reverse auctions at contracting officials' discretion. VA's Veterans Healthcare Administration—formerly one of the largest users of reverse auctions revised its procurement manual in February 2014 to suspend the use of any reverse auction platform to conduct new reverse auctions. The Veterans Healthcare Administration amended its procurement manual again in October 2015 to lift the suspension of GSA Reverse Auctions, but kept in effect the suspension of all other reverse auctions platforms. VA and Veterans Healthcare Administration officials stated that they revised their policies following investigations about the use of reverse auctions at the Veterans Healthcare Administration by the VA Office of Inspector General.¹⁷

Other agencies and components we reviewed have policies that encourage the use of reverse auctions. For example:

¹⁷These investigations resulted in two September 2014 reports. One report found that the majority of reverse auction contract files had incomplete contract documentation, reported savings were unreliable, and items were procured from unauthorized distributors. The other report substantiated allegations that the deputy chief procurement officer of the Veterans Healthcare Administration engaged in conduct prejudicial to the government and in a conflict of interest in her dealings with FedBid, Inc., a reverse auction provider. Subsequently, the Air Force briefly suspended FedBid, Inc. To address these concerns, the company made changes in leadership and implemented a business ethics program, among other things. See Department of Veterans Affairs Office of Inspector General, VAOIG 13-01408-294, *Review of Veterans Healthcare Administration Use of Reverse Auction Acquisitions*, September 26, 2014, and Department of Veterans Affairs Office of Inspector General, VAOIG 13-03065-304, *Administrative Investigation, Conduct Prejudicial to the Government and Interference of a VA Official for the Financial Benefit of a Contractor, Veterans Health Administration, Procurement & Logistics Office, Washington, DC, September 26, 2014.*

¹⁶In 2016, the micro-purchase threshold was generally \$3,500. See 80 FR 38293 (Oct. 1, 2015). Fiscal year 2017 and 2018 National Defense Authorization Act legislation subsequently increased the micro-purchase threshold to \$5,000 and \$10,000 for defense and civilian agencies, respectively. See National Defense Authorization Act for Fiscal Year 2017, Pub. L. No. 114-328, §§ 217, 821 (Dec. 23, 2016); National Defense Authorization Act for Fiscal Year 2017, Pub. L. No. 114-328, §§ 217, 821 (Dec. 23, 2016); National Defense Authorization Act for Fiscal Year 2018, Pub. L. No. 115-91, § 806 (Dec. 12, 2017). Although the Department of Defense implemented the fiscal year 2017 increase in class deviations, neither the defense nor civilian increases have been implemented in the applicable regulations. See Department of Defense Class Deviation 2018-00013 (April 13, 2018) (rescinding and superseding Department of Defense Class Deviation 2017-000006, Increased Micro-Purchase Threshold (July 13, 2017)); FAR § 2.101.

- State's May 2015 policy memorandum established a requirement that contracting officials first consider using reverse auctions conducted through FedBid for all noncomplex commodities.¹⁸
- DHS's Customs and Border Protection's August 2014 standard operating procedure required that reverse auctions conducted through FedBid be given priority consideration when acquiring non-complex commodities.¹⁹
- A Naval Supply Systems Command's November 2014 policy letter required use of reverse auctions for commercial off-the-shelf supply items valued from \$25,000 to the simplified acquisition threshold.
- The Army's Mission Installation Contracting Command Desk Book has generally required use of reverse auctions for all acquisitions above the micro-purchase threshold for commercial supplies in certain categories.

Overall, of the almost 15,000 reverse auctions conducted and awarded in 2016 by the five agencies for which we reviewed detailed data, we found that about 94 percent were for contracts valued below \$150,000.²⁰ However, we found that nearly two-thirds of the dollar value of awarded reverse auctions was for purchases above \$150,000 (see figure 5).

²⁰Our analysis of 2016 reverse auctions includes auctions conducted by the Army, Navy, DHS, Interior, and State through Compusearch, FedBid, and GSA Reverse Auctions.

¹⁸State officials told us that this policy applies to procurements conducted by the Office of Acquisition Management, and the requirement does not apply to procurements conducted at overseas posts. According to federal procurement data, the Office of Acquisition Management was responsible for more than 90 percent of all of State's contract obligations in 2017.

¹⁹In February 2018, DHS's Customs and Border Protection issued updated procedures for using reverse auctions, incorporating guidance issued by DHS in May 2017. The requirement to use reverse auctions was unchanged in the new procedure.



Figure 5: Selected Agencies' Use of Reverse Auctions for Awards Above and Below \$150,000 in Fiscal Year 2016

Source: Compusearch, FedBid, and General Services Administration data. | GAO-18-446

Note: This analysis includes the Departments of the Army, Homeland Security, the Interior, the Navy, and State. Reverse auction value is based on the dollar amount of the bids selected for award.

Further, we found that reverse auctions valued at more than \$1 million in 2016 accounted for less than 1 percent of the number of auctions and 32 percent of the dollar value. Most (about 80 percent) of these higherdollar-value auctions were for information technology-related products and services, while the remainder included hand tools, cabling equipment, radios, uniforms, air rifles, and vehicle trailers.

Our analysis also found that the selected agencies generally used reverse auctions with fixed-price contracts, commercial items, products, and to promote small business participation—a few of the effective uses outlined in the June 2015 OFPP memorandum. For example, in terms of award value, 87 percent was for products and 13 percent for services. In addition, 60 percent of auction award value was for information technology-related purchases. Further, 83 percent of auction value was for awards made to small businesses.

Agencies Obtained Benefits of Enhanced Competition and Reduced Administrative Burden, but Savings Estimates Should be Viewed with Caution	The agencies we reviewed obtained iterative bidding, indicating enhanced competition between multiple vendors, in nearly three-quarters of reverse auctions, and contracting officials cited reduced administrative burden as another key benefit, but determining the actual amount of savings is challenging due to data issues. Overall, in fiscal year 2016, the agencies we reviewed achieved iterative bidding for 75 percent of reverse auctions. However, in 20 percent of auctions only one bidder participated. Auctions representing nearly half of the value of State's reverse auction awards had only one bidder, driven by large dollar value procurements, in part due to State's requirement to use reverse auctions for all non-complex commodities without regard to expectations for competition. Contracting officials we spoke to cited reduced administrative burden, particularly at the end of the fiscal year, as a key factor in the decision to use reverse auctions. Based on data from reverse auction providers, reverse auctions that took place in 2016 resulted in contract awards that were an estimated \$100 million below the government's pre-auction estimate, though the extent to which this figure represents actual savings is difficult to determine.
--	--

Three-Quarters of 2016 Auctions Resulted in Enhanced Competition through Iterative Bidding, But Competition Results Varied by Agency and Other Factors

Reverse Auctions Generally Resulted in Iterative Bidding We found the agencies we reviewed achieved iterative bidding on 75 percent of auctions in fiscal year 2016, accounting for 68 percent of dollars spent. However, in 20 percent of the auctions, only one bidder participated (see figure 6).²¹ OFPP's June 2015 guidance states that reverse auctions are likely to be most effective in highly competitive marketplaces.

²¹We did not include VA in our analysis of competition and savings achieved through reverse auctions in 2016 because VA's use of reverse auctions was too small to inform meaningful analysis: the agency conducted only nine reverse auctions in 2016.





Source: GAO analysis of Compusearch, FedBid, and General Services Administration data. | GAO-18-446

Note: Iterative bidding indicates enhanced competition and is defined as a reverse auction with multiple bidders where the total number of bids is greater than the number of bidders (at least one bidder submitted more than one bid). Of the auctions in which only one bidder participated, the bidders submitted only one bid in 55 percent of auctions, accounting for 47 percent of the awarded dollar value. One bidder submitted multiple bids in 45 percent of auctions, accounting for 53 percent of awarded dollars. The selected agencies included in this analysis are the Departments of the Army, Homeland Security, the Interior, the Navy, and State.

We found that auctions with iterative bidding resulted in award prices that were, on average, about 12 percent lower than pre-auction cost estimates, which generally reflect the government's independent cost estimate.²² In contrast, this difference was about 6 percent among those auctions without iterative bidding. Of the 40 auctions we selected for in-depth review, we reviewed 29 auctions with iterative bidding. Review of the bid history for some of these auctions demonstrated the potential benefits of iterative bidding. For example:

- State awarded an approximately \$4.3 million contract for night vision goggles following an open market reverse auction that got 110 bids from 16 vendors. The winning vendor bid 17 times and lowered its price by roughly 30 percent over the course of the auction, not including the reverse auction provider's indirect fee.
- DHS's Customs and Border Protection awarded an approximately \$268,000 contract, including an option period, for tires following an open market reverse auction that got 35 bids from 13 vendors. The winning vendor bid three times and lowered its bid by roughly

²²Differences between award prices and pre-auction cost estimates may be due to competition or a result of other factors such as the quality of the pre-auction cost estimate.

25 percent over the course of the auction, not including the reverse auction provider's indirect fee.

 Army National Guard Bureau awarded an approximately \$14,000 contract for ice climbing equipment following an open market reverse auction that got 20 bids from 7 vendors. The winning vendor bid six times and lowered its price by roughly 10 percent over the course of the auction, not including the reverse auction provider's indirect fee.

Although three-quarters of 2016 auctions achieved iterative bidding for the agencies we reviewed, we found that in 20 percent of the awarded reverse auctions only one bidder participated, representing 27 percent of the dollars awarded.²³ This percentage is higher than the percent of obligations on all 2016 competitive procurements for which there was only one offer received across the government (14 percent). However, this varied by agency. Four of the five agencies we reviewed had higher proportions of only one bidder participating on reverse auctions, by dollar value, than for their competitive procurements in general, particularly at State. The other agency, Interior, had a lower proportion of only one bidder participating in reverse auctions. Table 2 describes differences in competition for selected agencies in 2016.

About One-Fifth of Reverse Auctions Had Only One Bidder

²³One agency—the Department of Defense—has defined competitive procurements where only one vendor submits a bid to be "ineffective competition". See Office of the Under Secretary of Defense, Acquisition, Technology and Logistics memorandum, *Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending*, (September 14, 2010). See also DFARS § 215.371 (2016); DFARS PGI 215.371-2 (2016). However, policies to promote competition when only one offer is received do not apply in a variety of circumstances, such as when acquisitions are at or below the simplified acquisition threshold. See DFARS § 215.371-4.

	Homeland				
	Army	Navy	Security	State	Interior
Awarded Reverse Auctions					
Number	5,861	3,205	1,593	2,634	1,479
Dollar value (millions of dollars)	326	123	190	235	36
Percentage of dollar value for auctions with iterative bidding	69	71	74	60	79
Percentage of dollar value for auctions with multiple bidders each bidding once	8	7	2	1	4
Percentage of dollar value for auctions with only one bidder, bidding once or multiple times	23	22	24	39	17
Percentage of dollar value of all competitive procurements with one offer	13	16	21	17	20

Table 2: Reverse Auction Results for Selected Agencies in Fiscal Year 2016

Source: GAO analysis of Compusearch, FedBid, Federal Procurement Data System - Next Generation, and General Services Administration data. | GAO-18-446

Our analysis indicates that requiring the use of reverse auctions through agency or component-level guidance may contribute to agencies obligating more money through reverse auctions that attract only one bidder. Specifically, State's percentage of dollar value for auctions with one-bidder—almost 40 percent—was substantially higher than other agencies in our review and more than twice State's percentage of dollars obligated on competitive procurements in general when only one offer was received. This was driven by the results of reverse auctions for larger dollar value contracts. In 2016, State awarded more auctions valued over \$1 million than any of the other agencies we reviewed. Of 36 State auctions valued at more than \$1 million, 13 had only one bidderaccounting for 27 percent of the total dollar value of State's reverse auctions in 2016. State's May 2015 guidance requires contracting officials to first consider using FedBid's reverse auction platform for the acquisition of non-complex commodities, but does not mention competition or its benefits. While the policy allows contracting officers to seek waivers in certain circumstances, none of the potential exceptions listed in the policy include the expectation of a lack of robust competition. Some State contracting officials we spoke to said that the requirement encourages the use of reverse auctions even if there is not a reasonable expectation of competition.

We reviewed four State auctions valued at more than \$1 million where there was only one bidder. Contracting officials responsible for three of the four auctions cited the guidance as a reason they used a reverse auction. For example, State awarded a \$12 million contract for brand name computer and storage infrastructure equipment following a 2-day reverse auction at the end of the fiscal year open to National Aeronautics and Space Administration SEWP vendors. The contracting official responsible for this auction told us that market research indicated that two SEWP vendors could meet their needs, but only one vendor had responded to inquiries during market research. However, she said that she used a reverse auction because State policy required it for contracts of this type.

In the fourth instance, State officials acknowledged that other factors, including poor acquisition planning that resulted in tight timeframes, led them to use a reverse auction as a "crisis management tool". State awarded a \$19 million contract, including option periods, for construction support services in Afghanistan following a 17-hour reverse auction among Federal Supply Schedule vendors, although only one vendor had responded to market research inquiries. Officials said that they had sought to combine this contract with another set of services for which the same vendor was the only identified source likely to respond, but coordinating with the customers took too long, and they ultimately ran out of time before the predecessor contract was set to expire and services would stop. Under tight timeframes that risked the program losing critical services, contracting officials said they used a reverse auction because it allowed them to make a contract award quickly while still opening the requirement to multiple vendors, even though there was little chance of multiple vendors bidding.

OFPP's June 2015 reverse auctions guidance states that market research—the process used to collect and analyze data about the capabilities in the market to satisfy agency needs—must be conducted to understand the marketplace and to determine if it is reasonable to assume that the potential benefits of reverse actions can be achieved.²⁴ State's requirement to first consider using FedBid's reverse auction platform for all non-complex supplies, even with exceptions, may contribute to State using and paying for reverse auctions when a different approach could garner more competition and potentially a better price.

²⁴Our prior work found that market research on lower dollar procurements was limited and that agencies may have missed opportunities to promote competition. See GAO, *Market Research: Better Documentation Needed to Inform Future Procurements at Selected Agencies*, GAO-15-8 (Washington, D.C.: Oct. 9, 2014).

Competition Rates Were Lower When Agencies Used Existing Contract Vehicles

For the almost 15,000 auctions the five selected agencies conducted in 2016, nearly \$590 million—about 65 percent—of total awarded reverse auction value was for orders on existing contract vehicles.²⁵ We found that, in comparison to open market auctions, reverse auctions using existing contract vehicles had 1) higher rates of only one bidder participating, and 2) were less likely to have iterative bidding (see table 3).

Table 3: Competition Rates for Almost 15,000 Open Market and Existing Contract Vehicle Reverse Auctions for Selected Agencies in Fiscal Year 2016

	Open Market Auctions	Existing Contract Vehicle Auctions
One bidder participation (percentage of award dollar value)	15	33
Iterative Bidding (percentage of award dollar value)	82	61

Source: GAO analysis of Compusearch, FedBid, and General Services Administration data. | GAO-18-446

Note: Iterative bidding indicates enhanced competition and is defined as a reverse auction with multiple bidders where the total number of bids is greater than the number of bidders (at least one bidder submitted more than one bid). This analysis includes nearly 15,000 auctions conducted by the Departments of the Army, Homeland Security, the Interior, the Navy, and State.

The 40 auctions we reviewed in-depth included 24 auctions that used existing contract vehicles, including 5 in which only one bidder participated—4 awarded by State and 1 by DHS's Customs and Border Protection. However, our review of these examples did not identify clear reasons why auctions on existing contract vehicles have lower competition rates overall than open market auctions. Agency procurement officials told us that they are aware of variations in the competition obtained for particular existing vehicles more generally than when reverse auctions are used, and suggested that it would be useful to examine the competition dynamics for reverse auctions vehicle by vehicle.

²⁵In April 2017, we found that orders on these types of existing contracts (i.e., indefinite-delivery, indefinite-quantity contracts) accounted for about one-third of all contract obligations. GAO, *Federal Contracts: Agencies Widely Used Indefinite Contracts to Provide Flexibility to Meet Mission Needs*, GAO-17-329 (Washington D.C.: April 13, 2017).

	None of the agency guidance we reviewed comprehensively addressed how to use reverse auctions effectively when ordering from existing contract vehicles. Further, none of the five agencies we reviewed have collected data on or assessed why the number of reverse auctions with only one bidder on existing contract vehicles was significantly higher than reverse auctions using open markets. OFPP's June 2015 reverse auctions guidance states that agencies should be evaluating their experiences with reverse auctions and the effectiveness of existing practices and policies so that refinements can be made as necessary. Standards for internal control require management to periodically review policies and procedures for continued relevance and effectiveness in achieving the entity's objectives. ²⁶ Without understanding what factors indicate that conducting reverse auctions using existing contract vehicles is appropriate and providing this information to contracting officials so that they can consider it when developing their acquisition strategies, agencies may be using and paying for reverse auctions when another approach might yield better competition and pricing.			
Decreased Workload and Ease of Use Are Key Reasons Officials Use Reverse Auctions	Similar to what we found in December 2013, of the 35 contracting officials we interviewed, 29 cited ease of use and reduced administrative burden as key reasons why they chose to use reverse auctions, particularly at the end of the fiscal year. ²⁷ Officials noted that certain reverse auction providers, such as FedBid, offer acquisition support services in addition to the reverse auction platform itself that can decrease the workload for contracting officials. In particular, contracting officials noted the following as ways that reverse auctions assisted them in performing their responsibilities:			
	• The reverse auction provider performed functions such as building complex auctions and following up with vendors to encourage participation. In some instances, such as at State or Customs and Border Protection, FedBid provides support personnel on-site at agencies. Contracting officials told us that this is helpful because they are able to obtain in-person support for troubleshooting and time-sensitive purchases. Officials said that they used these			

²⁶GAO-14-704G.

²⁷We reviewed 40 auctions in-depth, but for 5 auctions, the contracting officials involved in the reverse auction process were not available to interview.

additional services for 7 of the 29 FedBid auctions about which we interviewed contracting officials.

- Reverse auction platforms produced auction documentation that decreased the administrative burden of producing a contract file. For example, Army officials responsible for a \$14,000 award for ice climbing equipment explained that the summary document produced by the FedBid platform includes much of the competition information, such as auction participants and bids, needed for the contract file.
- The reverse auction platforms enabled contracting officials to replicate past auctions for similar items, then update auction-specific information. For example, a DHS Immigration and Customs Enforcement contracting official responsible for a \$38,000 award for detention uniforms said that he makes frequent purchases of the same items, so the ability to clone past auctions and update the quantities, pre-auction cost estimates, clauses, and sources (open market or existing contracts) saves a lot of time. He said that with other procurement methods he must re-enter procurement information each time.
- Reverse auctions enabled them to work on multiple procurements simultaneously, rather than sending emails or making phone calls to individual vendors to obtain quotes. For example, a DHS Customs and Border Protection contracting official responsible for two auctions we reviewed said that reverse auctions allow him to work on multiple contract awards at a time at the end of the fiscal year.

Data we collected from reverse auction providers found that contracting officials make greater use of reverse auctions at the end of the fiscal year. While the agencies we reviewed made a disproportionate number of new awards in the last fiscal quarter of 2016—42 percent—reverse auctions were used even more heavily, with agencies conducting 53 percent of reverse auctions in the last quarter (see figure 7).





Source: Compusearch, FedBid, and General Services Administration FY 2016 data. | GAO-18-446

Note: Our analysis included auctions that started, ended, and resulted in contract awards in 2016.

Reverse Auctions Data Indicate \$100 million in Savings in 2016, but Savings Estimates Should be Viewed with Caution Based on fiscal year 2016 data from reverse auction providers, Army, Navy, DHS, Interior, and State awarded contracts with values that totaled more than \$100 million less than the agencies' pre-auction cost estimates, after including any reverse auction provider fees (see table 4).

Table 4: Fiscal Year 2016 Reverse Auctions Estimated Savings for Selected Agencies

Dollars in millions

	Homeland					
	Army	Navy	Security	State	Interior	Total
Dollar value of awarded reverse auctions ^a	326	123	190	235	36	910
Estimated difference overall between pre-auction estimates and award prices (net any fees)	32	19	24	28	3	105 ^b
Average difference between pre- auction estimates and award prices (net any fees)	9	13	11	11	7	10

Source: GAO analysis of FedBid, and General Services Administration data. | GAO-18-446

^aReverse auction value is based on the dollar amount of the bids selected for award.

^bNumbers do not total exactly due to rounding.

The agencies we reviewed generally rely on reverse auction providers to report savings estimates to them. FedBid—the largest provider used by our selected agencies—and GSA Reverse Auctions generally calculate savings as the difference between the pre-auction cost estimate—represented by the auction's "target price" set by buyer—and the award price, which is the winning vendor's bid plus the reverse auction provider's fee. In some cases, however, FedBid will modify this approach to account for potential shortcomings in the quality of pre-auction cost estimates. FedBid does this in two different scenarios.

- First, to correct for situations when using the agency target price results in abnormally high savings—generally defined by FedBid as savings more than 50 percent above the target price—instead FedBid uses a target price based on an average of bids received during the auction. FedBid representatives explained that these adjustments help avoid overstating savings caused by outlier target prices.
- Second, to correct for situations when the agency target price was lower than the winning bid, and would result in a calculated savings of less than \$0, instead FedBid uses a target price equal to the winning bid, so that calculated savings equal \$0. FedBid representatives explained that, in their opinion, a contracting official would not proceed with an award if the winning bid was higher than the target price unless the contracting official believed that the pre-auction estimate was invalid.

Overall, we found that in 4 of the 33 FedBid auctions we reviewed, the awarded reverse auction prices were collectively \$900,000 higher than

the pre-auction cost estimates (which were used as the target prices). Prior to reporting savings to the agencies, FedBid adjusted the target prices to match the award values and reported that these auctions resulted in no savings. FedBid representatives said that they have provided details about this data normalization process to the contracting officers responsible for their agency contracts.

We identified other approaches to calculating savings resulting from reverse auctions. For example, in December 2016, the Army negotiated a new contract with FedBid that established a different method for calculating savings in an attempt to isolate the savings due to the specific effects of reverse auctions. The Army calculates savings as the difference between the "initial leading bid"—the second bid usually—and the winning bid. GSA Reverse Auctions and Army CHESS have also calculated savings through different methods, including as the difference between the highest bid and the lowest bid, as well as between the winning vendor's initial and lowest bids.

Contracting officials acknowledged several challenges in using the pre-auction cost estimate as a baseline from which to calculate savings. For example:

- Contracting officials at Interior's US Geological Services stated that it is critical to ensure that the pre-auction cost estimates they set in the reverse auction system are based on good market research, and that the target price is set at the lowest price they can obtain outside of a reverse auction. They noted that before conducting a reverse auction for water filters, these officials lowered the pre-auction cost estimate by about \$450,000 from the program office's initial cost estimate, to reflect a lower price identified in subsequent market research. During the reverse auction, Interior obtained five bids from four vendors, resulting in an award valued at \$1.4 million, including option periods. The auction's savings were then calculated to be \$670,000.
- In another auction resulting in a \$430,000 contract awarded by the Army for laptops, the contracting official noted that the pre-auction cost estimate was developed by the customer based on historic pricing. In turn, the price obtained through the reverse auction reflected a calculated savings of \$67,000 or about 13 percent from the pre-auction estimate. However, the contracting official said that this method is not a reliable way to calculate savings as his customers typically use a high estimate to make sure they do not have to request additional funds. The contracting officer also noted that, in his experience, using historical pricing for technology products can be

problematic since pricing changes very quickly as new technology is developed and old products become obsolete.

We reported in December 2013 that it was unclear whether comparing auction award prices to the pre-auction cost estimate produced an accurate estimate of savings, as it depended on the quality of the pre-auction cost estimate, which is generally informed by market research.²⁸ In our current review, contracting officials reiterated this perspective. Federal regulations provide flexibility in terms of the extent to which market research should be conducted, and how that research should be conducted, including for low dollar procurements.²⁹ Because the FAR has not yet been amended to address any specific requirements for reverse auctions as we recommended in our previous report, we are not making additional recommendations on this issue.

Agency Guidance and Contracting Approaches Lack Sufficient Information to Ensure Good Business Decisions and Appropriate Contract Oversight

For reverse auctions conducted in 2016, the five agencies we reviewed indirectly paid more than \$13 million in fees.³⁰ Similar to our findings from our December 2013 review, we found that agency contracting officials we interviewed generally did not have a complete and accurate understanding of reverse auction fee structures.³¹ This hinders their ability to make informed decisions about when to use reverse auctions or which reverse auction platform to use for a specific procurement, potentially leading to paying more fees than necessary for reverse auctions for the level of service required. Our analysis of agency- and component-level guidance found that none of the agency-level guidance we reviewed fully informed contracting officials about the availability of reverse auction providers and platforms and any applicable reverse auction fee structures, nor did the guidance ensure that contracting officials would compare the options available to them when considering whether to use reverse auctions. In addition, agencies that used the services of FedBid, the largest reverse auction provider, did not always draft sufficiently detailed fee arrangements to ensure that the agencies were

²⁸GAO-14-108.

²⁹See FAR § 10.002(b)(1).

³⁰Indirect fees are the only type of fees included in our analysis of the extent to which selected agencies had insight into reverse auctions fees, since providers with direct fees were not used by the selected agencies in this review.

³¹GAO-14-108.

knowledgeable about and could conduct oversight of FedBid's indirect fees.

Selected Agencies Paid over \$13 Million for Reverse Auctions Conducted in 2016	The five agencies we reviewed indirectly paid about \$13.4 million in fees to reverse auction providers in 2016. As discussed previously, generally, in the indirect payment process, the reverse auction provider adds a fee onto the winning vendor's bid. Then, the agency pays the winning vendor this total amount. In turn, the reverse auction provider collects the fee from the winning vendor.
	Agencies we reviewed primarily conducted reverse auctions using three reverse auction providers' platforms in 2016. The agencies paid indirect fees to two of these reverse auction providers in 2016—FedBid and GSA—while the third provider, Army CHESS, did not charge a fee for its services. Indirect fees paid to FedBid and GSA generally varied from 0 to 3 percent of the value of the transaction, though both FedBid and GSA cap certain fees and will waive fees in certain circumstances. For example, GSA does not charge an indirect reverse auction fee for Federal Supply Schedule orders or agency contracts based on Federal Supply Schedule contracts. ³² See table 5 for additional details on typical fee structures of reverse auction providers used by the agencies we reviewed.

³²Although there are no transaction-based fees charged by Army CHESS IT e-mart or by GSA Reverse Auctions for Federal Supply Schedule orders or agency contracts based on Federal Supply Schedule contracts, as previously discussed, these platforms have development and maintenance costs paid for by the agencies that maintain them.

Table 5: Typical Fee Structures for Reverse Auction Providers Used by Selected Agencies

	FedBid	General Services Administration (GSA)
Fee percentage	0 to 3 percent of transaction value	0.75 percent of auction value for open market auctions ^b
Fee cap	\$10,000 fee cap per transaction ^a	\$1,500 cap per auction line item for open market auctions
Fee waivers or reductions	Fee can be reduced or removed if it causes award price to exceed 1) the pre-auction cost estimate or 2) the contract price established under an existing contract vehicle, if applicable	No fee for Federal Supply Schedule orders or agency contracts based on Federal Supply Schedule contracts ^c

Note: Different providers deliver different levels of service—for example, FedBid is a full-service provider, while GSA, for example, provides more limited services.

^aDetails of the fee cap varied slightly across agencies GAO reviewed, but the fee cap generally equated to approximately \$10,000 per transaction.

^bFor non-GSA contract vehicles set up in the GSA Reverse Auctions platform, GSA applies a fee of either \$1,000 per year per contract paid directly in advance or 0.75 percent of auction until the aggregate of all fees charged for auctions on that vehicle equals \$1,000.

^cGSA receives a 0.75 percent indirect fee on all Federal Supply Schedule orders, which is built into the prices paid to vendors by ordering agencies, regardless of whether or not a reverse auction is used.

Agency Guidance Does Not Provide Sufficient Information to Contracting Officials on Reverse Auction Fees to Help Ensure Good Business Decisions

We found that none of the guidance we reviewed from the five agencies included the information needed to help ensure that contracting officials understand reverse auction indirect fees and their roles in assessing those fees. OFPP's June 2015 guidance states that contracting officers should consider the amount of fees paid when evaluating whether the price of a product or service in a reverse auction is fair and reasonable. including any additional fees for use of another agency's existing contract. This expectation is further established in agency guidance at the Army, DHS, and Interior. Our review found, however, that contracting officers generally did not understand how fees would be applied or the amount they would actually pay to use a reverse auction. This finding is consistent with our observation from our December 2013 report that agency officials were uncertain about how reverse auction fees were paid.³³ Understanding reverse auctions' costs is essential to making informed business decisions about when to use reverse auctions or which reverse auction platform to use for a particular procurement. Without such

³³GAO-14-108.
understanding, the risk increases that agencies may be paying more in fees than necessary for the level of service required.

Agency officials we interviewed generally did not have an accurate understanding of reverse auction indirect fee structures. For example, acquisition policy officials at State told us that their contract with FedBid has no cost to the agency because the fees are paid from the companies that win the auctions and it is up to the companies whether or not to include the fee in their final price to the government. As discussed above, however, FedBid automatically adds fees on to all vendor bids. An official who was involved in developing policy related to reverse auction use at Interior told us that agency officials were not fully aware of the fee structure used by FedBid when they initially contracted for the company's reverse auction services in October 2010. The official added that in hindsight, the fee structure is something that should have been more closely considered.

Additionally, while the contracting officials we interviewed for the 30 auctions we reviewed that incurred an indirect reverse auction fee were generally aware that they were paying a fee, officials responsible for 28 of these 30 auctions were uncertain about one or more elements of the reverse auction fee structure. For example:

- Lack of understanding of fee amount charged: Contracting officials who conducted 18 of the 29 FedBid auctions in our review were not aware of the fee charged for the reverse auction. All but three of these officials told us that they generally do not see the fee amount because it is included in the vendors' bids and is not broken out separately, so they evaluate the price inclusive of the fee. In response, FedBid representatives told us that since March 2014 they have offered functionality in the FedBid system that displays the fee separately. However, FedBid only turns this functionality on at the request of agency officials, which had not occurred at the time of our review. We found that procurement officials at all five of the agencies we reviewed were unaware that this feature was available. According to FedBid representatives, they have since notified the contracting officers responsible for their agency contracts about this feature.
- Confusion about circumstances for fee waivers or reductions: Although FedBid will waive or reduce its fee when the fee causes the auction to be above the pre-auction cost estimate or an established contract price, contracting officials responsible for 22 of the 29 FedBid reverse auctions did not accurately understand how this would work when we asked about it. For instance, some contracting officials at

State and Customs and Border Protection told us in error that FedBid would waive its fee if there was only one bidder in an auction. Additionally, contracting officials for two auctions told us that they thought the fees associated with their auctions had been waived and expressed surprise when they learned the fee amount. For one auction, a State contracting officer told us that if she had been aware of the amount of the potential fee for an auction for construction services for which only one bid was received, she may have considered other alternatives for awarding the contract.

 Uncertainty about how fee caps are applied: While FedBid generally caps its reverse auction fees at \$10,000 per transaction, officials we interviewed that were responsible for 20 of 29 FedBid auctions told us they were not aware of this or did not know the dollar threshold for the fee cap.

Additionally, while increased competition is typically cited as a benefit of reverse auctions, we found that about 18 percent of fees paid to reverse auction providers in 2016—approximately \$2.5 million—were for auctions in which there was only one bidder participating (see table 6 for detail by agency).

Table 6: Indirect Reverse Auction Fees Paid for Auctions with Only One Bidder as a Percentage of All Indirect Reverse Auction Fees Paid by Selected Agencies in Fiscal Year 2016

Dollars in thousands

			Homeland			
	Army	Navy	Security	Interior	State	Total
Reverse auction fees paid for auctions with only one bidder	1,172	216	409	129	526	2,451
Percentage of total reverse auction fees paid	19	13	22	14	18	18

Source: GAO analysis of FedBid and General Services Administration data. | GAO-18-446

Note: Total fees paid amount does not match sum of agency data on fees paid due to rounding.

Further, we found that agencies in our review indirectly paid approximately \$3.3 million in fees for reverse auctions conducted in 2016 even when an alternative no-fee reverse auction platform was likely available.³⁴ The availability of an alternative platform does not necessarily mean that the no-fee platform is the most appropriate option, because different platforms provide different levels of service. We did not determine whether particular platforms were more appropriate or resulted in lower overall prices to the government. However, we found that agencies paid these fees to FedBid to conduct reverse auctions for orders on Federal Supply Schedule contracts or Army CHESS contracts when they might have used GSA Reverse Auctions or the Army CHESS IT e-mart without paying a fee. Our 40 case studies included 10 auctions for orders off GSA's Federal Supply Schedules or Army CHESS contracts that used FedBid rather than using GSA Reverse Auctions or the Army CHESS IT e-mart. For five auctions at Army and State, contracting officials told us they were required or strongly encouraged by agency or component policy to use FedBid. For the other five auctions, contracting officials told us that they preferred FedBid because it was easier to use or they were more familiar with it than GSA Reverse Auctions. Without considering which provider best meets its needs in these cases, the agencies may have paid more in fees than necessary for the required level of service.

We found that none of the agency guidance we reviewed was sufficient to ensure that contracting officials understood reverse auction fees and their roles in assessing those fees. A clear understanding is necessary to make informed decisions about when to use reverse auctions or which reverse auction platform to use for a particular procurement (see table 7).

³⁴In 2016, the Army CHESS IT e-mart did not have the capability to conduct reverse auctions for certain CHESS contracts. However, data we requested from FedBid did not provide sufficient detail to allow us to determine which auctions conducted on FedBid using CHESS contracts could or could not have been conducted on the Army CHESS IT e-mart.

Table 7: GAO Assessment of Characteristics of Reverse Auction Guidance for Selected Agencies GAO Reviewed

Agency	Addresses contracting officials' role in understanding and assessing reverse auction fees	Details fee structure for reverse auction platforms used by the agency	Requires or suggests consideration of fee-free options when appropriate
Army	•	Ð	Đ
Navy	0	Đ	Θ
Homeland Security	•	0	0
Interior	•	0	0
State	0	0	0

Legend:

• = addressed in agency guidance

= partially addressed in agency guidance or addressed only in guidance for one or more agency components

o = not addressed in agency or component guidance

Source: GAO analysis of agency guidance. | GAO-18-446

We found that agency guidance we reviewed at two of the five agencies—Navy and State—did not address the role of contracting officials in understanding and assessing reverse auction fees. Specifically:

- Navy does not have agency-wide guidance that addresses the circumstances and processes for using reverse auctions. At the component level, the Naval Supply Systems Command's November 2014 guidance states that contracting officials may use any available government or commercial reverse auction platform for reverse auctions, unless ordering off GSA's Federal Supply Schedule or other contract vehicle posted at GSA's eBuy site, but the guidance does not provide information about how contracting officers should consider reverse auction fees in deciding which platform to use.
- State's guidance on reverse auctions does not address the role of contracting officers in considering reverse auction fees. As noted previously, State's May 2015 policy memorandum requires that contracting officers first consider using FedBid for acquisition of all non-complex commodities unless a waiver is obtained.

Guidance we reviewed at the other three agencies—Army, Interior, and DHS—did address the role of contracting officials in understanding and assessing reverse auction fees, although the level of detail varied among the three agencies. Specifically:

- A June 2015 policy alert from the Army stated that contracting officials are required to be aware of reverse auction fees and consider them in evaluating whether the price of the product or service being acquired is fair and reasonable.
- Similarly, Interior's August 2015 guidance states that contracting officers need to evaluate the estimated amount of reverse auction fees that will be paid when assessing whether prices are fair or reasonable.
- DHS's May 2017 guidance states that contracting officers need to understand the fees charged by a provider, and determine and document that the fee structure represents a fair and reasonable cost and offers the best value to the government.

None of the agency-wide guidance we reviewed at the five agencies detailed the fee structure of each reverse auction platform used by the respective agency. As a result, contracting officials' ability to understand and assess the fees-an existing requirement in OFPP guidance and at the Army, Interior, and DHS—is hindered. Neither State nor Interior had guidance that detailed the specific fee structures of reverse auction providers used by contracting officials at those agencies. While one Army command developed guidance on FedBid's fee structure, the Army has not provided any agency-wide guidance on FedBid or GSA Reverse Auctions fee structures, even though the Army awarded reverse auctions valued at approximately \$326 million using these two providers in 2016. Similarly, while the Navy's May 2017 memorandum of understanding for using GSA Reverse Auctions informs contracting officials of GSA Reverse Auctions' fee structure, the Navy does not have guidance that details FedBid's fee structure. In 2016, the Navy conducted more than 10 times as many auctions using FedBid's platform as it did using GSA's platform.

Additionally, we found that none of the agencies had agency-wide guidance that required contracting officials to consider whether no-fee reverse auction alternatives, such as GSA Reverse Auctions for Federal Supply Schedule orders and the Army's CHESS IT e-mart for Army CHESS orders, would meet their needs. State, DHS, and Interior guidance does not address this issue at all. Similarly, while neither the Army nor Navy have agency-wide guidance that does so, each agency has component or command-level guidance that addresses this issue to a limited extent. For example, Naval Supply Systems Command guidance issued in November 2014 requires that contracting officials use GSA Reverse Auctions for products or services off the Federal Supply Schedule. More recently, according to Army officials, as of July 2017, the Army's CHESS program began recommending that reverse auctions for orders off Army CHESS contracts be conducted using the Army CHESS IT e-mart.

Standards for internal control in the federal government require agencies to develop policies that address operational processes and the responsibilities of individuals for carrying out those processes.³⁵ Our review found that, while certain agencies or agency components had guidance that provided some information about reverse auction fees, none of the agency-level guidance we reviewed fully addresses contracting officials' role in understanding and assessing reverse auction fees, details fee structures for reverse auction platforms used by the agency, or requires that contracting officers compare the options for reverse auction providers that are available to them, particularly regarding no-fee alternatives. Without such guidance, contracting officers are at risk of paying more in fees than necessary for the level of service they require.

Agencies' Contracting Approaches Do Not Provide Sufficient Information on Reverse Auction Fees to Facilitate Oversight and Adherence to Internal Control Standards We found that while nearly all reverse auction fees were paid to FedBid since FedBid was by far the largest reverse auction provider used by the selected agencies, agencies' approaches to contracting with FedBid did not result in sufficiently detailed fee arrangements to ensure that the agencies were knowledgeable about the fees they were paying and could conduct oversight of whether FedBid was applying indirect fees as expected.³⁶ For the five agencies we reviewed that conducted reverse auctions using FedBid in 2016, two did not have documented agency-level fee arrangements with FedBid, while the other three had contracts that did not fully address at least one element of FedBid's fees, as shown in table 8.

³⁵GAO-14-704G.

³⁶For the purposes of this report, "fee arrangements" refers to negotiated, documented descriptions of indirect fee payments and associated considerations in contracts at either the agency or component level. In instances where contracting officials agreed to "click-through" terms on a website, we presumed those actions resulted in valid contracts. We did not evaluate contracts in our sample for legal compliance.

Table 8: GAO Assessment of Characteristics of Indirect Fee Arrangements with FedBid for Selected Agencies GAO Reviewed as of April 2018

Agency	Has documented fee arrangement in place with FedBid	Fee arrangement addresses how fee cap applies to option years	Fee arrangement addressed how fee cap is calculated	Fee arrangement requires reporting on fees
Army	Yes	0	•	•
Navy	Yes	•	igodoldoldoldoldoldoldoldoldoldoldoldoldol	•
Homeland Security	No agency-wide contract but certain components have contracts	0	e	0
Interior	No	N/A	N/A	N/A
State	Yes	0	Q	0

Legend:

• = addressed in fee arrangement

• = partially addressed in fee arrangement or addressed for some components but not agency-wide

not addressed in fee arrangement

Source: GAO analysis of agency contract documents as of April 2018. | GAO-18-446

Three of the five agencies we reviewed that used FedBid—Army, Navy, and State—had agency-wide contracts in place with FedBid, but we found that these contracts did not always document key aspects of the fee terms with FedBid. Specifically:

- Lack of clarification on how the fee cap applies to contracts with option years: FedBid representatives stated that their standard practice is that the fee cap will apply separately to each option year awarded. The Navy's January 2018 contract with FedBid is consistent with this practice and explains how the fee cap will apply to contracts' option years. In contrast, Army's and State's December 2016 contracts with FedBid do not specify how the fee cap would apply to option years. Contracting officials who were responsible for managing the FedBid contract at the Army told us they believed that the fee cap was a total of \$10,000 per contract awarded, including for the base and all option years.
- Lack of detail on calculation of fee cap: Navy and State's contracts with FedBid did not include full details on how the fee cap would be applied. As discussed above, FedBid generally caps its fee at \$10,000. However, due to the way FedBid calculates fees, if the lowest bid is not selected, the fee on the selected bid may be over \$10,000. We found that 19 reverse auctions in 2016 resulted in FedBid fees over \$10,000. Neither the Navy's January 2018 contract

nor State's December 2016 contract explains that the fee may be above \$10,000.

According to agency officials, DHS and Interior did not have agency-wide contracts with FedBid for reverse auctions conducted in 2016. While three DHS components had their own contracts with FedBid that were active in 2016, four additional components plus DHS headquarters used FedBid in 2016 without either an agency- or component-level contract in place.³⁷ At Interior, the contract with FedBid expired in September 2015 and was not renewed, although contracting officials at Interior components continued to conduct reverse auctions on FedBid. Contracting officials at these agencies used FedBid's services by agreeing to its standard terms and conditions each time they accessed the FedBid platform. FedBid representatives told us they consider the terms of use to be the contract between FedBid and the government when there is no agency- or component-level contract in place, and that this is similar to how commercial e-commerce marketplaces operate with federal agencies for micro-purchases. FedBid's standard terms and conditions, however, do not provide detailed information on fees, such as the precise fee percentage charged or the amount of the fee cap. FedBid representatives told us that they typically charge federal agencies a 3 percent fee, but that fee details are not included in the standard terms and conditions because commercial and government customers may pay different fees. At DHS and Interior, when there are not agency- or component-level contracts in place and contracting officials use FedBid by agreeing to the standard terms and conditions, there is a risk that they may agree to fees or other terms that have not been reviewed and approved by agency acquisition and legal offices.

Lastly, we found that only two of the agencies we reviewed—the Army (since December 2016) and the Navy (since May 2012)—required and received regular monthly reporting from FedBid on reverse auction fees paid indirectly by the agency. Both agencies also have contractual requirements for FedBid to provide this information annually, in addition to the monthly reporting. Army officials told us that requiring additional data in their December 2016 contract with FedBid was a result of lessons learned from their September 2012 contract, and was intended, in part, to improve oversight of fees paid. Army and Navy officials provided

³⁷DHS guidance on reverse auctions issued in May 2017 requires contracting officers to memorialize written contracts with any non-federal reverse auction service providers when purchasing their services.

examples of FedBid reverse auction fee reports, and described how they used this information to oversee their contracts with FedBid. The Army and Navy also both requested and received monthly reports from GSA Reverse Auctions that included detailed information on fees.

In contrast, DHS, Interior, and State did not require or receive regular reporting on fees from FedBid or GSA Reverse Auctions.³⁸ As previously discussed, according to officials, DHS and Interior do not have agencywide contracts with FedBid and, therefore, do not have a mechanism in place to require agency-wide reporting. Interior officials told us they do not receive any reports on fees paid from FedBid. For the two DHS components we reviewed, Immigration and Customs Enforcement officials told us that they received ad hoc reporting on fees paid to FedBid and provided us with a sample report that included fee data. While Customs and Border Protection's contract with FedBid requires reporting on costs incurred by the government, officials told us that they do not receive any reporting on fees. State neither requires nor receives reporting on fees from FedBid. State and Customs and Border Protection officials told us that they do not receive such reporting since fees are paid by winning vendors and therefore there is no direct cost to the government to use FedBid. We found, however, that these agencies indirectly paid almost \$4.2 million in fees to FedBid in 2016.

Standards for internal control require agencies to appropriately document transactions and significant events to assist with oversight and help ensure that agency objectives are being achieved effectively and efficiently.³⁹ Without a documented contract or arrangement in place between agencies or components and FedBid that provides a clear and common understanding of payment terms and fee structure, agencies lack sufficient information to conduct contract oversight to determine whether FedBid is applying its indirect fees as the agencies expect.

Further, internal control standards emphasize timely and reliable information and data so that agencies can effectively monitor their operations. Without requiring reporting on reverse auction fees, agencies may not have sufficient information to understand and oversee their use

³⁹GAO-14-704G.

³⁸DHS, which indirectly paid a minimal amount of reverse auction fees on open market auctions to GSA in 2016, has not requested or received reporting on fees paid to GSA Reverse Auctions since 2016. Interior and State did not indirectly pay reverse auction fees to GSA Reverse Auctions in 2016.

of reverse auction platforms and conduct contract oversight to ensure that the fees they are being charged are appropriate.

Conclusions	The landscape of reverse auctions has changed slightly since our last review in December 2013. There are more reverse auction providers, including government providers, in the marketplace, with the vast majority of auctions conducted through FedBid. The use of reverse auctions, however, continues to constitute a relatively small percentage of federal contract spending. For the most part, agencies are using reverse auctions to acquire low-cost, commercial products and benefitting from the ease of use and reduced administrative burden that reverse auctions can provide. Agencies are also achieving more robust competition in the form of iterative bidding on nearly three-quarters of reverse auctions. Despite this level of competition, however, precisely quantifying the amount of savings is inherently difficult. Given that the vast majority of auctions are small dollar procurements which are, by design, intended to be simpler and to pose less administrative burden on the acquisition workforce, it may be counterproductive to expend more time and resources to produce a better estimate of savings. Nevertheless, there is room for improvement in the guidance agencies provide to their contracting personnel to ensure the appropriate use of reverse auctions, increase benefits, and reduce costs. Agencies could benefit from paying more attention to
	 rates of one-vendor participation,
	provider fee structures, and
	 contracts with reverse auction providers.
	Across the agencies in our review, often only one bidder participates, in particular when agencies conduct a reverse auction using existing contract vehicles rather than opening the auction to all potential vendors. At State, its requirement for contacting officers to use reverse auctions for all non-complex acquisitions may result in reverse auction use in situations where it is not warranted; that is, without the type of highly competitive marketplace that can result in savings.
	Our work also identified a need for agencies to provide contracting officers better information on the fee structures so that they can make informed decisions as to whether to use a reverse auction and which reverse auction platform to use. Further, agencies are not requiring data on or analyzing the fees they are paying. The indirect nature of provider fees—combined with fee arrangements that are missing important details

	or are nonexistent and a lack of visibility into those fees—puts agencies at risk of paying more than necessary for the level of service needed. These issues are not new: we raised similar concerns in our report more than 4 years ago. Taken together, these issues put the government at risk of failing to maximize the benefits that the effective use of reverse auction can provide, and worse, put agencies at risk of paying millions of dollars more in fees than necessary for the level of service needed.
Recommendations	We are making a total of 21 recommendations, including 3 to Army, 4 to Navy, 4 to DHS, 4 to Interior, and 6 to State.
	We are making the following seven recommendations to heads of agencies within the Department of Defense:
	• The Secretary of the Army should: assess why reverse auctions that are conducted using existing contract vehicles have only one bidder at higher rates than reverse auctions conducted on the open market; determine what factors indicate that conducting reverse auctions is appropriate when using existing contract vehicles; and provide this information to contracting officials so that they can consider it when developing their acquisition strategies. (Recommendation 1)
	• The Secretary of the Army should: document and provide information to contracting officials that describes available reverse auction providers and platforms, and any associated fee structures; and provide guidance, as appropriate, to contracting officials to ensure that they compare the options that are available to them when considering whether to use reverse auctions. (Recommendation 2)
	 The Secretary of the Army should clarify with FedBid how fees apply when contract option years are exercised. (Recommendation 3)
	• The Secretary of the Navy should: assess why reverse auctions that are conducted using existing contract vehicles have only one bidder at higher rates than reverse auctions conducted on the open market; determine what factors indicate that conducting reverse auctions is appropriate when using existing contract vehicles; and provide this information to contracting officials so that they can consider it when developing their acquisition strategies.(Recommendation 4)
	• The Secretary of the Navy should review the agency's current guidance to assess whether it adequately addresses contracting officer responsibilities to consider the cost of any fees associated with reverse auction options they may be considering when developing

their acquisition strategies, and revise its guidance as appropriate. (Recommendation 5)

- The Secretary of the Navy should: document and provide information to contracting officials that describes available reverse auction providers and platforms, and any associated fee structures; and provide guidance, as appropriate, to contracting officials to ensure that they compare the options that are available to them when considering whether to use reverse auctions. (Recommendation 6)
- The Secretary of the Navy should clarify with FedBid how FedBid's fee cap will be calculated. (Recommendation 7)

We are making the following four recommendations to DHS:

- The Secretary of the Homeland Security should: assess why reverse auctions that are conducted using existing contract vehicles have only one bidder at higher rates than reverse auctions conducted on the open market; determine what factors indicate that conducting reverse auctions is appropriate when using existing contract vehicles; and provide this information to contracting officials so that they can consider it when developing their acquisition strategies.(Recommendation 8)
- The Secretary of Homeland Security should: document and provide information to contracting officials that describes available reverse auction providers and platforms, and any associated fee structures; and provide guidance, as appropriate, to contracting officials to ensure that they compare the options that are available to them when considering whether to use reverse auctions. (Recommendation 9)
- The Secretary of Homeland Security should determine if it would be advantageous for the agency to enter into contracts with third-party reverse auction providers. (Recommendation 10)
- The Secretary of Homeland Security should obtain timely information on how much the agency is paying for reverse auction services. (Recommendation 11)

We are making the following four recommendations to Interior:

• The Secretary of the Interior should: assess why reverse auctions that are conducted using existing contract vehicles have only one bidder at higher rates than reverse auctions conducted on the open market; determine what factors indicate that conducting reverse auctions is appropriate when using existing contract vehicles; and provide this information to contracting officials so that they can consider it when developing their acquisition strategies.(Recommendation 12)

- The Secretary of the Interior should: document and provide information to contracting officials that describes available reverse auction providers and platforms, and any associated fee structures; and provide guidance, as appropriate, to contracting officials to ensure that they compare the options that are available to them when considering whether to use reverse auctions. (Recommendation 13)
- The Secretary of the Interior should determine if it would be advantageous for the agency to enter into contracts with third-party reverse auction providers. (Recommendation 14)
- The Secretary of the Interior should obtain timely information on how much the agency is paying for reverse auction services. (Recommendation 15)

We are making the following six recommendations to State:

- The Secretary of State should review the agency's current guidance to assess whether it leads contracting officials to use reverse auctions in situations where there is not a highly competitive marketplace, and revise its guidance as appropriate. (Recommendation 16)
- The Secretary of State should: assess why reverse auctions that are conducted using existing contract vehicles have only one bidder at higher rates than reverse auctions conducted on the open market; determine what factors indicate that conducting reverse auctions is appropriate when using existing contract vehicles; and provide this information to contracting officials so that they can consider it when developing their acquisition strategies. (Recommendation 17)
- The Secretary of State should review the agency's current guidance to assess whether it adequately addresses contracting officer responsibilities to consider the cost of any fees associated with reverse auction options they may be considering when developing their acquisition strategies, and revise its guidance as appropriate. (Recommendation 18)
- The Secretary of State should: document and provide information to contracting officials that describes available reverse auction providers and platforms, and any associated fee structures; and provide guidance, as appropriate, to contracting officials to ensure that they compare the options that are available to them when considering whether to use reverse auctions. (Recommendation 19)

	• The Secretary of State should clarify with FedBid how FedBid's fee cap will be calculated and how fees apply when contract option years are exercised. (Recommendation 20)
	 The Secretary of State should obtain timely information on how much the agency is paying for reverse auction services. (Recommendation 21)
Agency Comments and Our Evaluation	We provided a draft of this report to DOD, DHS, Interior, State, the Department of Housing and Urban Development, GSA, VA, and OMB. Collectively, the agencies concurred with 18 of the 21 recommendations we made, and did not concur with three.
	In its written response, reproduced in appendix IV, DOD concurred with our seven recommendations—three to the Army and four to the Navy— and stated that the department expected to complete actions to address the recommendations by the end of calendar year 2018.
	In its written response, reproduced in appendix V, DHS concurred with two recommendations and did not concur with two recommendations. DHS concurred with our recommendation that it assess why reverse auctions conducted using existing vehicles have higher one bidder rates and provide information to contracting officials about factors that indicate conducting reverse auctions using existing vehicles is appropriate. However, DHS did not believe that it needed to conduct an assessment specific to reverse auctions. The department stated that the factors that contribute to one bidder participating in other procurements—such as inadequate market research and poorly defined requirements—would similarly affect reverse auctions. Nevertheless, DHS stated that the Office of the Chief Procurement Officer will communicate to its contracting officials that when market research for a planned reverse auction buy on an existing contract vehicle demonstrates that only one bid is expected, a reverse auction must not be used to conduct the procurement. DHS expects to complete actions in response to this recommendation by the end of November 2018.
	DHS also concurred with our recommendation that it determine if it would be advantageous for the agency to enter into contracts with third party reverse auction providers. DHS stated that an assessment should be done periodically to determine if there is a need to have a department- wide reverse auction provider. In that regard, DHS stated that an assessment was conducted in 2016 to evaluate providers and platforms and, based on this evaluation, DHS made the decision to continue to

provide contracting offices the flexibility to choose their own reverse auction provider. DHS stated that it believes its past actions address our recommendation. However, the intent of our recommendation is not to suggest that DHS consider whether to mandate a certain provider be used agency-wide. Rather, we are recommending that DHS assess whether agency-level contracts with reverse auction providers—be it one or several different providers—are desirable to protect against the risk that individual contracting officials may be agreeing to fees or other terms that have not been reviewed and approved by agency acquisition and legal offices. It is unclear whether DHS's 2016 assessment considered these issues.

DHS did not concur with our recommendation that it provide information to contracting officials regarding available reverse auction providers and fee structures and, as appropriate, provide guidance to contracting officials to ensure they compare available options for reverse auctions. In its response, DHS stated that there is limited value in centrally collecting and updating this information, and that it is the contracting officer's responsibility, as a part of market research, to be knowledgeable about reverse auction providers and fee structures. DHS stated that its May 2017 reverse auctions policy requires contracting officers to understand the fees that will be charged and determine and document that the fee structure represents a fair and reasonable cost and offers best value to the government. DHS stated that the Office of the Chief Procurement Officer will issue an alert reminding contracting professionals of these responsibilities by the end of November 2018. Given the pervasive confusion we found among contracting officials about the fee structures of reverse auction providers, we continue to believe that DHS should document and provide information to contracting officials, which could help eliminate confusion and minimize the duplication of individual reverse auction users repeatedly collecting the same information.

DHS also did not concur with our recommendation that it obtain timely information on how much the agency is paying for reverse auction services, stating that aggregating fee data at the department level would require systems changes or manual collection that would not inform DHS as to whether reverse auctions were used correctly or if the fee was too high. In this case, however, our work found that reverse auction providers have this data available upon request. As such, in lieu of making changes to systems or attempting to have contracting officers manually collect this information, we believe DHS could obtain this information from its reverse auction provider and use this information to help DHS understand what it pays for reverse auction services. This approach would also better inform the department in its periodic assessments of contractual relationships with reverse auction providers.

In its written response, reproduced in appendix VI, State concurred with all six recommendations, and described actions the Office of Acquisitions Management intends to take to address them, including reviewing current guidance and revising it as appropriate; increasing contracting officer awareness through training and policy guidance; and engaging with its primary reverse auction provider to obtain a better understanding of the fee structure and timely reporting of fees. State did not provide information as to when it expected these actions to be completed.

In its written response, reproduced in appendix VII, Interior concurred with three recommendations and did not concur with one recommendation. Interior concurred with our recommendation that it assess why reverse auctions conducted using existing vehicles have higher one bidder rates and provide information to contracting officials about factors that indicate conducting reverse auctions using existing vehicles is appropriate. The department stated that it will implement policy regarding the use of reverse auctions with existing contract vehicles. Interior also concurred with our recommendation that it provide information to contracting officials regarding available reverse auction providers and fee structures and, as appropriate, provide guidance to contracting officials to ensure they compare available options for reverse auctions. The department stated it would review and update guidance to provide contracting officials with current and relevant information on available reverse auction providers. platforms, and associated fee structures. Interior also concurred with our recommendation that it obtain timely information on how much the agency is paying for reverse auction services. Interior did not provide information as to when it expected the above actions to be completed.

Interior did not concur with our recommendation to determine if it would be advantageous for the agency to enter into contracts with third-party reverse auction providers, stating that it would be more efficient to provide guidance to contracting officials so that they can make the best business decision. Interior officials told us verbally that they have already considered whether or not to enter into contracts with reverse auction providers and determined that it is not to the department's advantage to do so. Interior officials told us they would provide us information about the factors considered in making this decision, but we did not receive this information prior to issuing this report. In its written response, reproduced in appendix VIII, VA provided information about its use of reverse auctions for energy purchases through GSA and its energy reverse auction provider, EnerNOC. The Department of Housing and Urban Development, GSA, and OMB informed us that they had no comments on this report.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, the Secretary of Homeland Security, the Secretary of Housing and Urban Development, the Administrator of General Services, the Secretary of the Interior, the Secretary of State, the Secretary of Veterans Affairs, and the Administrator of Federal Procurement Policy. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-4841 or dinapolit@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 IX.

Di Ypol.

Timothy J. DiNapoli Director, Contracting and National Security Acquisitions

Appendix I: Defense Logistics Agency and Army Computer Hardware Enterprise Software and Solutions Reverse Auctions

Defense Logistics Agency's Use of Reverse Auctions	The Defense Logistics Agency's (DLA) use of reverse auctions declined over 80 percent from fiscal years 2013 to 2017 from about \$7 billion to about \$1 billion in constant fiscal year 2017 dollars, according to data we obtained from DLA's provider Procurex for all auctions conducted (that may or may not have resulted in an award). According to DLA officials, the agency's declining use is largely due to a policy revision that no longer requires, but rather allows contracting officers to consider using reverse auctions for all procurements over \$150,000. DLA pays a flat fee to its reverse auction provider for use of the reverse auction platform. This payment mechanism is different from the fee arrangements in contracts between agencies and many other reverse auction providers, for which providers calculate fees on a per-transaction basis. In addition, DLA generally uses a reverse auction as a price negotiation tool among a group of selected vendors that the agency determined to be technically acceptable based on vendors' initial responses to a solicitation. Because of these differences, DLA does not have a need to track the reverse auctions awarded for its reporting and oversight purposes.
Army Computer Hardware Enterprise Software and Solutions (CHESS) Information Technology (IT) e-mart Reverse Auction	The Army Computer Hardware Enterprise Software and Solutions (CHESS) Information Technology (IT) e-mart program introduced its reverse auction capability in January 2016. It offers fee-free reverse auctions for a number of the CHESS contracts. According to Army officials, in July 2017, the CHESS program began recommending use of its reverse auction capability rather than other reverse auction platforms. ¹ According to data provided by the CHESS program office for all auctions conducted (that may or may not have resulted in an award), use of reverse auctions increased over 225 percent between fiscal years 2016 and 2017 from about \$28 million to about \$91 million in constant fiscal year 2017 dollars. The CHESS IT e-mart does not track which auctions result in awards. According to officials, users capture award information in the agency's contract writing system. While CHESS officials told us they are interested in that kind of information, CHESS does not charge a fee and does not have a need to track the reverse auctions awarded for its oversight purposes.

¹In 2016, selected agencies awarded over \$136 million in CHESS-related auctions using FedBid.

Appendix II: Agency Policies and Guidance Reviewed

Table 9: Agency Policies and Guidance Reviewed

Agency	Issuing office	Title of policy or guidance
Government-wide	Office of Federal Procurement Policy	Office of Federal Procurement Policy Memorandum, "Effective Use of Reverse Auctions" (June 1, 2015)
Department of Homeland Security	Office of the Chief Procurement Officer	 Department of Homeland Security Memorandum, "Interim Policy and Guidance on Reverse Auctions" (May 10, 2017)
	Customs and Border Protection	 Customs and Border Protection Procurement Directorate Standard Operating Procedure, "Use of Reverse Auction Tool and Use of FedBid" (Feb 28, 2018)
		Customs and Border Protection Procurement Directorate Standard Operating Procedure, "Use of FedBid" (August 25, 2014)
Department of State		 "Overseas Contracting and Simplified Acquisition Guidebook" (October 2016) (Excerpt)
		 Office for Acquisitions Management Memorandum, "15-23 – First Consideration for FedBid to Procure Commercial Supply Items" (May 4, 2015)
		Office of the Procurement Executive Department Notice, "Access to FedBid.com" (May 30, 2002)
Department of the Army	Office of the Assistant Secretary of the Army (Acquisition Logistics and Technology)	 Office of the Assistant Secretary of the Army (Acquisition Logistics and Technology) Memorandum, "Reverse Auction Policy" (April 24, 2013)
	Deputy Assistant Secretary of the Army (Procurement)	 Principal Assistant Responsible for Contracting Policy Alert # 15-85, "Effective Use of Reverse Auctions" (June 8, 2015)
	U.S. Army Contracting Command	 U.S. Army Contracting Command Memorandum, "Command Policy Memorandum – Use of Reverse Auctioning" (February 7, 2013)
	U.S. Army Mission and Installation Contracting Command	 U.S. Army Mission and Installation Contracting Command, "Desk Book" (November 16, 2017; June 2, 2017; January 4, 2017; June 24, 2016; March 18, 2016; November 13, 2015; and May 5, 2015)
	Program Executive Office Enterprise Information	 "Information Technology Enterprise Solutions-3 Hardware (ITES-3H) Ordering Guide" (January 2018)
	Systems, Army Computer Hardware, Enterprise Software	"Army Desktop and Mobile Computing-2 (ADMC-2) Ordering Guide" (November 2017)
	and Solutions (CHESS)	 "Information Technology Enterprise Solutions – Software (ITES-SW) Ordering Guide" (March 2016)
	National Guard Bureau	 National Guard Bureau Principal Assistant Responsible for Contracting Policy Alert #16-006, "Rescission of Procurement Implementation Memorandum 2014-01 Reverse Auctions" (April 21, 2016)

Agency	Issuing office	Title of policy or guidance
		 Office of the Principal Assistant Responsible for Contracting Memorandum, "National Guard Bureau Procurement Implementation Memorandum 2014-01, National Guard policy for the use of Reverse Auctions" (February 20, 2014)
Department of the Interior	Acquisition, Assistance, and Asset Policy, Office of Acquisition and Property Management	"Department of the Interior Innovative Procurement Tools" (August 13, 2015)
	Office of the Secretary	 Department of the Interior Acquisition Policy Release, "2013-06—FedBid Reverse Auction Service" (July 8, 2013)
Department of the Navy	Office of the Assistant Secretary, Research, Development and Acquisition	 Office of the Assistant Secretary, Research, Development and Acquisition Memorandum, "Memorandum of Understanding for Using the General Services Administration's Reverse Auction eTool" (March 13, 2017)
	Naval Supply Systems Command	 Naval Supply Systems Command, "Contracting Handbook Part 17.94 Reverse Auctions" (May 2017)
		 Naval Supply Systems Command Policy Letter, "15-002 — Naval Supply Systems Command Enterprise Mandatory Use of Reverse Auctions" (November 14, 2014)
		 Naval Supply Systems Command Policy Letter, "14-006 — Naval Supply Systems Command Enterprise Mandatory Use of Reverse Auctions" (February 10, 2014)
Department of Veterans Affairs		 Department of Veterans Affairs Memorandum "Updated Policy and Procedures on Using Reverse Auctions (VAIQ 7220215)" (April 3, 2012)
	Veterans Health Administration	Veterans Health Administration Procurement Manual, Revision 3 (October 19, 2015) (Excerpts)
		 Veterans Health Administration Procurement Manual, Revision 1 (February 21, 2014) (Excerpt)

Source: Agency policies and guidance. | GAO-18-446

Appendix III: Objectives, Scope, and Methodology

This report examines (1) federal agencies' use of reverse auctions between 2013 and 2017, (2) the extent to which selected agencies achieved benefits through reverse auctions, and (3) the extent to which selected agencies have insight into reverse auction fees.

For all objectives, we reviewed policies and guidance related to reverse auctions from Office of Federal Procurement Policy (OFPP) and at selected agencies and relevant components of those agencies we reviewed, as well as the Standards for Internal Control in the Federal Government and relevant work by agency Inspectors General.¹ We also interviewed procurement policy officials from the selected agencies and representatives from reverse auction providers.

To examine federal agencies' use of reverse auctions between 2013 and 2017, we collected data from reverse auction providers we identified by reviewing our past work in this area, reviewing federal procurement solicitation and award information, conducting interviews with agency officials, and conducting internet searches about federal use of reverse auctions. Through these efforts, we identified eight reverse auction providers that offered reverse auction services either government-wide or to specific agencies (see table 10 below).

¹GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Washington D.C.: September 2014).

Table 10: GAO-Identified Reverse Auction Providers

Provider	Agencies served	Public or private provider Public	
Army Computer Hardware Enterprise Software and Solutions	Army and Department of Defense with limited government-wide options		
Compusearch ^a	Government-wide	Private	
EnerNOC, Inc.	General Services Administration (GSA), Private specifically the energy division		
FedBid, Inc.	Government-wide	Private	
GSA	Government-wide	Public	
Procurex	Defense Logistics Agency	Private	
Consummate Computer Consultants Systems, LLC.	Department of Housing and Private Urban Development		
Weems Design Studio, Inc.	Department of Housing and Urban Development	Private	

Source: Agency and reverse auction provider documents and interviews with officials. | GAO-18-446

^aCompusearch discontinued marketing its reverse auction platform after it acquired FedBid, Inc. in September 2017.

While it is possible that our efforts did not identify all reverse auction providers that federal agencies use, we are reasonably confident we have included the largest reverse auction providers used by the selected agencies in our review. In addition to the identification efforts described above, for the selected agencies in our review, we asked component officials to identify reverse auction providers with which the agency has a contractual relationship and which reverse auction platforms the agency's contracting officials use. We also asked numerous individual contracting officers about the various platforms the individual has used. No additional providers or platforms were identified as part of those efforts.

We collected fiscal year 2013 through 2017 data on reverse auctions use from these reverse auction providers and analyzed it to identify the number of reverse auctions conducted annually across the government and the dollar value of those reverse auctions.² For our analysis of the number and dollar value of the auctions, we analyzed auctions that resulted in a contract award between the agency and a vendor in a

²Throughout this report, we are referring to fiscal years, unless otherwise specified. We collected data from the Department of Housing and Urban Development directly because the agency tracks its reverse auction use, including which auctions it awards, using a licensed software package.

particular year, according to provider data. We describe these as awarded reverse auctions. The dollar value of an awarded auction is based on the dollar amount of the bid selected for award; however, the dollar amount of the bid selected for award is not necessarily equivalent to the amount ultimately obligated on the resulting contract. We present the dollar value of agencies' awarded auctions from 2013 through 2017 in constant fiscal year 2017 dollars using the Congressional Budget Office's June 2017 Gross Domestic Product price index projection-the most recent projection available at the time of our analysis. We generally collected data from reverse auction providers because information about reverse auction use is not available in the Federal Procurement Data System-Next Generation, a government-wide source of contract data. In addition, the selected agencies we reviewed do not separately track use of reverse auctions. We collected data from the Department of Housing and Urban Development directly because the agency tracks its reverse auction use, including which auctions it awards. Two of the providers we identified, Procurex and the Army CHESS IT e-mart reverse auction platform, do not track the reverse auctions that agencies award to vendors. The agencies using these providers, Defense Logistics Agency and the Department of the Army, do not require this information for their own reporting and oversight purposes or for paying for the reverse auction services.³

For purposes of this report, all references to reverse auction use exclude auctions conducted with these providers. Therefore, our analysis includes only the value and number of known, awarded auctions between 2013 through 2017. As a result, we underestimate total federal reverse auction use. Using available data for the Department of the Army, we estimate our analysis includes over 95 percent of the value and 99 percent of Army auctions. For the Defense Logistics Agency, Procurex reported that over the five-year period the agency conducted approximately 7,100 auctions valued at about \$19 billion. While we cannot say with certainty the number and value of awarded auctions, we can assume the agency awarded fewer auctions than it conducted. Based on information from other providers for which we have data on the

³According to Army CHESS IT e-mart data, non-military service agencies within the Department of Defense and the Navy also used the platform in 2016 and 2017. The number of auctions and auction value missing from our analysis for these auctions is immaterial and would be included in the rounding we used to report the department's use in 2016 and 2017. Therefore, we considered our reporting on reverse auction use for the Navy and other Department of Defense agencies from 2013 to 2017 to be complete. In addition, the Navy's 2017 use did not impact our 2016 analysis.

number of auctions conducted and awarded, agencies using these providers awarded about 45 percent of the auctions conducted between 2013 and 2017. Of the six providers with awarded auction data, FedBid accounted for almost all auctions and the vast majority of dollars agencies awarded using reverse auctions from 2013 through 2017.

We also used this data to identify six of the largest users of reverse auctions for that period—Departments of the Army, Homeland Security (DHS), the Interior, the Navy, State, and Veterans Affairs (VA)—by number of auctions and dollar value. In determining the largest users of reverse auctions, we excluded energy-related auctions from our analysis. Energy-related auctions represented a sizable portion—10 percent—of reverse auction value, but less than 1 percent of auctions. We determined that conducting a detailed review of energy-related auctions was not likely to provide insight for other procurements because the unique characteristics of energy markets make it difficult to compare to reverse auctions for other goods and services that were included in our review.⁴

For five of the six selected agencies (Army, Navy, DHS, Interior, and State), we collected additional data on auctions awarded in fiscal year 2016-the most recent year of detailed data available at the time that we began our review.⁵ We limited our analysis to auctions for which we identified a start, end, and contract award date in 2016, according to provider data. Our analysis of fiscal year 2016 auctions included almost 15,000 auctions with a total awarded value of approximately \$910 million. We excluded reverse auctions for which the data indicated that they were awarded in 2016 but for which the auction dates indicated that the auctions were conducted in a prior year. At least some of these auctions represent options exercised on earlier auctions, rather than new auctions, and we wanted to ensure we could compare auction activity to policies and procedures in place for a specific period. Our analysis of awarded auctions excluded auctions identified as cancelled or with an auction start, end, or award date outside of 2016. The sixth agency (VA) conducted less than a dozen new auctions in 2016, and so we excluded

⁴Energy purchases differ from most other goods and services because agencies typically conduct multiple auctions for a variety of purchasing scenarios, resulting in numerous auctions conducted for a single award. Additionally, awarded energy auctions are written for a not-to-exceed value, but actual obligations vary based on energy use.

⁵For reasons previously discussed, we excluded auctions using the Army CHESS IT emart. As a result, our analysis of Army data includes at least 93 percent of reverse auction award value and 98 percent of the awarded reverse auctions in 2016.

them from our analysis of 2016 data, as well as our analysis of the benefits and fees associated with reverse auctions.

We analyzed agencies' use of reverse auctions, including but not limited to

- the number and dollar value of the awarded auctions,
- types of products and services purchased,
- contract vehicles used,
- level of competition achieved (number of participating vendors and bids received),
- savings from government pre-auction estimates,⁶ and
- fees associated with the auctions.

For our analysis of the number and dollar value of the awarded auctions. we included auctions that resulted in a contract award between the agency and a vendor, according to provider data. Actual award obligations may differ. For example, an agency may adjust the procurement (such as increasing or decreasing the number of items purchased) between the auction and the final award, which may not be reflected in the data we used. In addition, the number of awarded auctions may differ. While we took steps to exclude awarded auctions for which agencies had cancelled the resulting contracts, if the provider data did not identify an auction as cancelled we may have included it in our analysis. For the analysis of products and services, we examined auctions conducted and awarded in 2016 by two of the three reverse auction providers, both of which had product and service code data available for awarded reverse auctions. These two providers accounted for almost all contracts awarded via reverse auctions that year. Provider data included an overall product and service code for the auction. The auction may include goods and services outside that particular code. For our purposes, we used the code provided to categorize the auction as a product or service and the type of purchase. The third provider, GSA Reverse Auction, does not capture similar product and service code data.

⁶Savings are calculated as the difference between the pre-auction estimate (auction target price) and award price including any associated indirect fees. Our analysis does not include all Army and Interior auctions. As previously mentioned, we cannot identify the auctions the Army awarded using the Army CHESS IT e-mart. One of Interior's reverse auction providers, Compusearch, does not use a target price or collect pre-auction cost estimates in its platform.

Using other data GSA Reverse Auction provided, we were able to estimate that about 20 percent of dollars awarded using GSA's Reverse Auctions platform included information technology products and services.

For our analysis of contract vehicles, we used provider data on whether the buyer selected to conduct the auction on the open marketplace or limit the auction to vendors qualified to bid on existing contract vehicles. For example, buyers may have conducted auctions on the open market, which is available to any vendor selling the good or service that is registered to bid via the reverse auction provider or conducted auctions that were limited to vendors with specific agency or government-wide contracts. For our analysis of competition, we included all vendors and associated bids submitted in provider data. During our interviews with contracting officials, we learned that in some auctions officials determined particular vendors were not technically acceptable following an auction. This information is not available in provider data and, as a result, our analysis includes vendors that contracting officials determined were not technically acceptable.

We also obtained contract-related information from the Federal Procurement Data System-Next Generation for awarded auctions with available contract or order numbers to identify if agencies used commercial acquisition procedures and firm-fixed-price contracts in accordance with the effective practices outlined in the June 2015 OFPP memorandum. Government auditing standards require that we assess the reliability of data we use in our products. As part of our assessment, we reviewed the reverse auction data collected for obvious issues, such as missing data elements, duplicates, and outliers. We also tested the relationships between variables. In addition, we interviewed agency and reverse auction provider officials to understand the data and collected information on the systems used to collect and store the data, as well as how those data are used. Further, we compared the data for a non-generalizable sample of 40 auctions to contract files. We assessed the reliability of the data used in this report and determined they were sufficiently reliable for describing the known number and value of awarded reverse auctions by federal agencies from 2013 through 2017 and identifying salient characteristics of selected agencies' awarded auctions in 2016, including the number of participating vendors and bids, type of good or service purchased, and indirect fees associated with the auction.

To identify the extent to which selected agencies achieved the benefits of reverse auctions, we analyzed the 2016 data we collected on reverse

auction use at our five selected agencies to identify factors related to competition (e.g., the number of participating vendors in auctions and the number of bids received, and the frequency of iterative bidding, defined as when there are multiple bidders and at least one bidder submits more than one bid during the auction) and savings (e.g., savings as calculated by the reverse auction providers).⁷ This analysis excludes auctions conducted using the Army CHESS IT e-mart because it does not track which auctions result in awards. However, the analysis still includes at least 93 percent of reverse auction award value and 98 percent of the awarded auctions in 2016. To obtain a more in-depth understanding of the benefits achieved by selected agencies, we selected and reviewed a nongeneralizable selection of 40 contracts awarded from 2016 reverse auctions across the five agencies.⁸ These contracts were chosen to obtain variety across the following characteristics: buying agency and component; contract vehicle (open market or orders on existing contracts such as Federal Supply Schedules or agency indefinite-delivery / indefinite-quantity contracts); dollar value; fees charged by the reverse auction providers; and goods and services being purchased (see table 11).

⁷For our savings analysis we excluded data for Interior auctions conducted with Compusearch because the provider does not collect pre-auction estimates in its data these auctions represent less than 1 percent of the agency's awarded auction value and auctions.

⁸We also reviewed two auctions at VA; however, due to their limited use, we excluded VA from our discussion of benefits and fees.

Table 11: Non-generalizable Sample of 2016 Auctions at Five Selected Agencies GAO Reviewed

		Homeland			_	_
	Army	Security	Interior	Navy	State	Total
Sample size	12	2 7	5	10	6	40
Source	FedBid – 10	FedBid – 6	FedBid – 4	FedBid – 7	FedBid – 6	FedBid – 33
	Army CHESS IT e-mart – 2	GSA Reverse Auction - 1	Compusearch - 1	GSA Reverse Auction – 3		GSA Reverse Auction – 4
						Army CHESS IT e-mart – 2
						Compusearch – 1
Reverse auction vehicle						
Existing contract	8	5 5	1	5	4	23
Open market	4	2	4	5	2	17
Value						
Above \$150,000	5	i 3	5	5	6	24
Below \$150,000	7	· 4	0	5	0	16
Fees						
Full or capped	g) 4	5	6	5	29
Reduced	C	2	0	1	1	4
Waived	1	0	0	1	0	2
No fee	2	! 1	0	2	0	5
Items purchased						
Product	g) 7	4	10	4	34
Service	3	6 0	1	0	2	6

Source: GAO analysis of selected 2016 auctions. | GAO-18-446

At DHS, we selected case studies from two components, Customs and Border Protection and Immigration and Customs Enforcement. Customs and Border Protection had an active contract with FedBid in 2016 and Immigration and Customs Enforcement did not, so we selected these two components in order to understand the difference in how components with and without an active contract used FedBid.

For each of the selected case studies, we reviewed contract documentation related to the reverse auction, such documentation of market research, pre-auction cost estimates (e.g. independent cost estimates), price negotiation memoranda, and contract award documents. In addition, to obtain contracting officials' perspectives on the benefits of reverse auctions, we interviewed the contracting officials involved with 35 of these 40 auctions: for the remaining 5, knowledgeable officials were not available to interview. We conducted our interviews using a semistructured interview process in which we asked contracting officials a standard set of questions about their experiences conducting reverse auctions. We did not compare reverse auctions to alternative acquisition methods to compare the relative costs and benefits.

To identify the extent to which selected agencies had insight into reverse auction fees, we analyzed provider data on fees paid indirectly to FedBid and GSA Reverse Auctions in 2016 for the five agencies selected for our review.⁹ Fees paid to these two reverse auction providers were paid indirectly by the agencies through the winning vendor. Our analysis included the total amount of fees paid by each agency in 2016 to each reverse auction provider and the amount of fees paid by each agency in 2016 for auctions with only one bidder.

We also analyzed agency guidance to determine the extent of information provided to contracting officials on reverse auction fees. Specifically, we assessed whether agency guidance identified roles and responsibilities of contracting officials in understanding and assessing reverse auction fees and provided sufficient information to help ensure contracting officers understood how reverse auction fees are applied. Further, we interviewed contracting officials for 35 of our 40 selected auctions to develop an understanding of the officials' knowledge of the fees related to the auctions they conducted. As noted above, officials for the other 5 auctions were not available to interview. The 40 selected auctions included 33 that incurred an indirect fee, 2 for which the provider waived the fee, and 5 for which no fee applied. We interviewed the contracting officials involved with 30 of the auctions that incurred a fee and 5 of the auctions for which the fee was waived or no fee applied. To determine whether contracting officials we interviewed had a complete and accurate understanding of reverse auction fee structures, we analyzed their responses to guestions about reverse auction fee structures and the fee paid for the reverse auction we reviewed in detail, and compared their responses to fee structures documented in agency contracts and reverse auction provider terms and conditions.

⁹While Interior also paid fees to a third reverse auction provider in 2016—Compusearch we excluded Compusearch from our analysis because the total amount of these fees was negligible and because Compusearch stopped marketing its own, separate reverse auction platform when it acquired FedBid.

Lastly, to determine whether agencies had sufficient insight into reverse auction fees to conduct appropriate oversight, we analyzed contracts between the selected agencies and FedBid as well as other fee arrangements, including provider terms of service and GSA's Federal Supply Schedule contract with FedBid. Our analysis included both contracts that were in place in fiscal year 2016 in order to understand the terms and conditions that covered the reverse auctions we reviewed in detail, as well as contracts agencies awarded subsequent to fiscal year 2016 so that we could understand whether and how agencies fee arrangements with reverse auction providers had changed. We analyzed the contracts and other fee arrangements to determine the extent to which they explained details of how the fees were applied, such as what fee percentage would be charged, how the fees would apply to contract option years, and how fee caps were applied.

We also used a variety of investigative tools and techniques to determine if reverse auction procurement officials and commercial and government providers have engaged in potential fraud, waste, abuse, and mismanagement associated with reverse auction use. We reviewed fraud alerts to learn about potential complaints, coordinated with agency inspector general offices regarding work related to reverse auctions, inquired about contracting officials' awareness of fraud incidents among the 35 case studies for which we interviewed contracting officials, and conducted a limited review for obvious financial relationships among agency officials responsible for drafting reverse auction policy and commercial reverse auction providers. While steps we took did not uncover any obvious fraud, waste, abuse, or systemic mismanagement, we cannot definitively state that there is no fraud, waste, abuse, or mismanagement in federal use of reverse auctions.

We conducted this performance audit from January 2017 to July 2018 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. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We conducted our related investigative work from April 2017 to March 2018 in accordance with investigative standards prescribed by the Council of the Inspectors General on Integrity and Efficiency.

Appendix IV: Comments from the Department of Defense

OFFICE OF THE UNDER SECRETARY OF DEFENSE **3000 DEFENSE PENTAGON** WASHINGTON, DC 20301-3000 ACQUISITION AND SUSTAINMENT Mr. Timothy J. DiNapoli Director, Contracting and National Security Acquisitions U.S. Government Accountability Office 441 G Street, N.W. JUN 1 8 2018 Washington, DC 20548 Dear Mr. DiNapoli: This is the Department of Defense response to the Government Accountability Office (GAO) Draft Report, GAO- 18-446, "Reverse Auctions: Additional Guidance Could Help Reduce Unnecessary Fees" dated May 11, 2018 (GAO Code 101428). Detailed responses to the report recommendations are enclosed. Sincerely, Shay D/As Director, Defense Pricing/Defense Procurement and Acquisition Policy Enclosure: As stated



guidance to ass the cost of any	DATION 5: The Secretary of the Navy should review the agency's current sess whether it adequately addresses contracting officer responsibilities to consider fees associated with reverse auction options they may be considering when ir acquisition strategies, and revise its guidance as appropriate.
DoD RESPON recommendation	SE: Concurs and provides estimated completion date of 1QFY19 to address the on.
information to platforms, and officials to ensu	DATION 6: The Secretary of the Navy should: document and provide contracting officials that describes available reverse auction providers and any associated fee structures; and provide guidance, as appropriate, to contracting ure that they compare the options that are available to them when considering reverse auctions.
DoD RESPON recommendation	SE: Concurs and provides estimated completion date of 1QFY19 to address the on.
	DATION 7: The Secretary of the Navy should clarify with FedBid how ap will be calculated.
DoD RESPON recommendation	SE: Concurs and provides estimated completion date of 1QFY19 to address the on.

Appendix V: Comments from the Department of Homeland Security

	U.S. Department of Homeland S Washington, DC 20528
	Homeland Security
	June 18, 2018
Directo U.S. G	ny J. DiNapoli or, Contracting and National Security Acquisitions overnment Accountability Office Street, NW
Washir	ngton, DC 20548
Re:	Management's Response to Draft Report GAO-18-446, "REVERSE AUCTIONS: Additional Guidance Could Help Reduce Unnecessary Fees"
Dear M	fr. DiNapoli:
Depart	you for the opportunity to review and comment on this draft report. The U.S. ment of Homeland Security (DHS) appreciates the U.S. Government Accountability s (GAO) work in planning and conducting its review and issuing this report.
encour tools, s	epartment is pleased to note GAO's positive recognition of DHS policies that age the use of reverse auctions. DHS remains committed to providing procurement uch as reverse auctions, that enhance competition, lower prices, and reduce tion costs.
and two	aft report contained four recommendations, two with which the Department concurs o with which it non-concurs. Attached find our detailed response to each nendation. Technical comments were provided under separate cover.
	thank you for the opportunity to review and comment on this draft report. Please fee contact me if you have any questions. We look forward to working with you again in the are.
	Sincerely,
	JIM H. CRUMPACKER, CIA, CFE Director Departmental GAO-OIG Liaison Office
Attachi	nent





fees paid amount whether DHS used reverse auctions correctly or even if the fee paid was too high. Fees must be analyzed in terms of the individual procurement and the alternative procurement methods available at the time. OCPO has already issued policy that requires this analysis and stipulates that it must be included in the contract file. It is incumbent upon the contracting officer to perform due diligence with each procurement, to include reverse auction buys. The OCPO Oversight and Pricing Branch will, however, perform a special contract file review to verify compliance with the May 2017 policy. ECD: April 30, 2019. 4

Appendix VI: Comments from the Department of the Interior



Recommendation 14: The Secretary of the Interior should determine if it would be advantageous for the agency to enter into contracts with third-party reverse auction providers. Response: Non-concur. The Department believes it will be more effective to provide guidance and information to contracting officials on all available reverse auction platforms and their fee structure so they can make the best business decision. Recommendation 15: The Secretary of the Interior should obtain timely information on how much the agency is paying for reverse auction services. Response: Concur. The Department will obtain timely information on fees paid on reverse auction services. If you have any questions about this response, please contact Megan Olsen, Director, Office of Acquisition and Property Management, at (202) 513-0692 or Megan_Olsen@ios.doi.gov. Sincerely, - Come Scott J. Cameron Principal Deputy Assistant Secretary for Policy, Management and Budget Exercising the Authority of the Assistant Secretary for Policy, Management and Budget

Appendix VII: Comments from the Department of State

Ų.		United States De Comptroller Washington, DC	partment of State	
		June 8, 2018		
.*				
Charles M. Johnson, Jr.				
Managing Director				
International Affairs and Trad Government Accountability C				
441 G Street, N.W.	Jinee			
Washington, D.C. 20548-000	1 -			
Dear Mr. Johnson:				
	and the second second			
We appreciate the oppo "REVERSE AUCTIONS: Ac Unnecessary Fees GAO Job C	ditional Guidanc		luce	
The enclosed Departme incorporation with this letter a			for	
If you have any questic Matthew Colantonio, Special Bureau of Administration at (Assistant, Office	is response, please of Logistics Mana	e contact agement,	
	Sincerely,			
		1714 J		
	Christy 18 ?			
	Christopher H.	Flaggs		
Enclosure:				
As stated				
cc: GAO – Tim DiNapoli				
A - Jennifer McIntyre				
OIG - Norman Brown				

	Department of State Response to the Draft Report
<u>REVE</u>	RSE AUCTIONS: Additional Guidance Could Help Reduce
	<u>Unnecessary Fees</u> (GAO-18-446, GAO Code 101428)
	ent of State appreciates the opportunity to respond to GAO's draft d <i>"Reverse Auctions: Additional Guidance Could Help Reduce Fees."</i>
whether it le where there	ry of State should review the agency's current guidance to assess eads contracting officials to use reverse auctions in situations is not a highly competitive marketplace, and revise its guidance as . (Recommendation 16)
Acquisitions	ent of State concurs with the recommendation. The Office of Management (AQM) will conduct a review of current guidance and dance as appropriate.
using existin reverse auct indicate that contracting	ry of State should: assess why reverse auctions that are conducted g contract vehicles have only one bidder at higher rates than ions conducted on the open market; determine what factors t conducting reverse auctions is appropriate when using existing vehicles; and provide this information to contracting officials so n consider it when developing their acquisition strategies. dation 17)
(Recommen	ent of State concurs with the recommendation.
(Recommen The Departm The Secreta whether it a the cost of a considering	ent of State concurs with the recommendation. ry of State should review the agency's current guidance to assess dequately addresses contracting officer responsibilities to consider ny fees associated with reverse auction options they may be when developing their acquisition strategies, and revise its appropriate. (Recommendation 18)



Appendix VIII: Comments from the Department of Veterans Affairs

		ENT OF VETERANS AFI ASHINGTON DC 20420	AIRS	
		JUN 2 6 2018		
Mr. Timothy J.	DiNapoli			
Contracting ar	nd National Security A ent Accountability Of			
441 G Street, Washington, D	NW			
Dear Mr. DiNa				
The De	partment of Veterans	s Affairs (VA) has reviev report, " REVERSE AU	ved the Government CTIONS: Additional	
Guidance Co	uld Help Reduce Un	necessary Fees" (GA	D-18-446).	
The end opportunity to	closure provides our i comment on your dra	revised general comme aft report.	nt. VA appreciates the	
		Sincerely,		
		Jacquely Kene Jacquelyn Hayes Acting Chief of St	Byrdyn L aff	
Enclosure				

Enclosure Department of Veterans Affairs (VA) Comments to Government Accountability Office (GÁO) Draft Report "REVERSE AUCTIONS: Additional Guidance Could Help Reduce Unnecessary Fees" (GAO-18-446) **General Comment:** As it pertains to Program Contracting Activity Central (PCAC) and the acquisition of energy commodities (natural gas and electric supply), the Department of Veterans Affairs (VA) executes an interagency acquisition package annually in order to place Economy Act orders (direct acquisitions) against the General Service Administration (GSA) contracts for natural gas and electricity supply that include VA facilities in deregulated states and regions. Deregulation allows the energy commodity to be acquired separately from the utility service (transportation/delivery). GSA's Energy Division has an established program other agencies can utilize to acquire these energy commodities via competitive procedures. EnerNoc, Inc., is GSA Energy Division's reverse auction platform provider for these requirements. PCAC contracting officers are aware of the fee structure arrangement between GSA and EnerNoc, Inc., and includes a summary of such costs in its best procurement approach determination.

Appendix IX: GAO Contact and Staff Acknowledgments

GAO Contact	Timothy J. DiNapoli, (202) 512-4841 or dinapolit@gao.gov
Staff Acknowledgments	In addition to the contact named above, Janet McKelvey (Assistant Director), Luqman Abdullah, Cory Ahonen, Peter Anderson, Leslie Ashton, Matthew Crosby, Alexandra Dew Silva, Lorraine Ettaro, April H. Gamble, Anne McDonough, Miranda Riemer, Robin Wilson, and Helina Wong made key contributions to this report.

GAO's Mission	The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.
Obtaining Copies of GAO Reports and Testimony	The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's website (https://www.gao.gov). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to https://www.gao.gov and select "E-mail Updates."
Order by Phone	The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, https://www.gao.gov/ordering.htm.
	Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.
	Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.
Connect with GAO	Connect with GAO on Facebook, Flickr, Twitter, and YouTube. Subscribe to our RSS Feeds or E-mail Updates. Listen to our Podcasts. Visit GAO on the web at https://www.gao.gov.
To Report Fraud,	Contact:
Waste, and Abuse in	Website: https://www.gao.gov/fraudnet/fraudnet.htm
Federal Programs	Automated answering system: (800) 424-5454 or (202) 512-7470
Congressional Relations	Orice Williams Brown, Managing Director, WilliamsO@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548
Public Affairs	Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800 U.S. Government Accountability Office, 441 G Street NW, Room 7149 Washington, DC 20548
Strategic Planning and External Liaison	James-Christian Blockwood, Managing Director, spel@gao.gov, (202) 512-4707 U.S. Government Accountability Office, 441 G Street NW, Room 7814, Washington, DC 20548