



Office of Audits
Office of Inspector General
U.S. General Services Administration

FAS's Use of Pricing Tools Results in Insufficient Price Determinations

Report Number A180068/Q/3/P20002
December 23, 2019

Executive Summary

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Why We Performed This Audit

This audit was included in our *Fiscal Year 2018 Audit Plan*. We performed this audit because Federal Acquisition Service (FAS) contracting officers increasingly use and rely on services pricing tools to perform price analyses for Multiple Award Schedule (MAS) contracts. Our objectives were to determine if: (1) FAS has sufficient and appropriate policy, guidance, and internal controls related to the use of services pricing tools; (2) FAS contracting specialists/officers are using and documenting the use of services pricing tools in accordance with existing FAS policy and federal regulations; and (3) the services pricing tools provide accurate data for price analysis.

What We Found

To assist its contracting officers in evaluating pricing proposals for MAS service contracts, FAS developed the Contract-Awarded Labor Category tool (CALC) and Contract Operations Division Contractors Database labor category pricing tool (CODCD). However, flawed use of these tools often results in invalid price analyses and price reasonableness determinations that fail to leverage the government's buying power in negotiations and could result in federal agencies overpaying for services.

We found that FAS contracting officers used flawed methodologies and practices when performing analyses with the pricing tools. Contracting officers relied either solely or primarily on the pricing tools to establish price reasonableness, inappropriately based pricing comparisons on labor categories that were not "same or similar," used inconsistent sampling methods, and used an inappropriate basis to establish the acceptable price ranges. We also found that the data in the CALC tool is incomplete, inaccurate, and duplicative; and as a result may skew the price analyses. Finally, we found that FAS contracting officers did not adequately document their use of the pricing tools to support price analyses and pricing determinations.

FAS should take appropriate action to resolve the issues outlined in this report to ensure the contracting officers' use of the pricing tools complies with the Federal Acquisition Regulation (FAR) and FAS policy and results in price analyses that fulfill the purpose of the MAS Program. In addition, FAS should establish controls to ensure that data contained and uploaded into the pricing tools is complete, accurate, and consistent, and seek to automate the process to reduce human error. Lastly, FAS should enforce existing policy to ensure contracting officers adequately document their use of the pricing tools in contract files.

What We Recommend

We recommend that the FAS Commissioner:

1. Cease use of the CALC and CODCD pricing tools until comprehensive policy, guidance, and controls are established and implemented to ensure resultant price analyses are valid. Specifically, FAS must ensure that:
 - a. Pricing tools are used only as part of a larger negotiation strategy that seeks the lowest overall cost alternative to meet the needs of the federal government, as required by the Competition in Contracting Act of 1984 (41 USC 152);
 - b. More reliable pricing information is used to the fullest extent possible;
 - c. Pricing tool output is analyzed and verified to meet “same or similar” requirements of FAR 15.4;
 - d. Emphasis is placed on the evaluation of labor categories with the most sales;
 - e. Labor categories used as benchmarks come from contracts with recent sales history; and
 - f. Contracting officers do not use standard deviation as a basis to determine whether proposed rates are fair and reasonable.
2. Establish controls to ensure that data contained and uploaded into the pricing tools is complete, accurate, and consistent, and identifies labor rates associated with contracts with no sales activity. In addition, FAS should seek to automate the process to reduce human error.
3. Develop and implement controls to ensure compliance with FAS Policy and Procedure 2018-03 - *Proper Documentation of Price Analysis Decisions – Federal Supply Schedule (FSS) Program* – in regards to documenting use of the pricing tools. Specifically, controls should ensure FAS contracting officers document:
 - a. The criteria used in the query of the pricing tools;
 - b. All detailed data records obtained in the pricing tool output;
 - c. A verification that labor category comparisons made using the pricing tools are “same or similar” in accordance with FAR 15.4; and
 - d. Any filtering or removal of data records the contracting officer determined were outliers or not “same or similar.”

The Acting Commissioner of FAS agreed with our findings and two of our three recommendations. However, she disagreed with our recommendation to cease use of the CALC and CODCD pricing tools until comprehensive policy, guidance, and controls are established and implemented. The Acting Commissioner asserted that a temporary cessation in the use of these tools will result in decreased efficiencies and increased costs. However, it is highly inefficient and ineffective for FAS to use flawed methodologies and practices when performing analyses with the pricing tools. Accordingly, we urge the Acting Commissioner to reconsider this recommendation.

FAS’s written comments are included in their entirety in **Appendix C**.

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Introduction

We performed an audit of the Federal Acquisition Service's (FAS) pricing tools for contract services to assess whether FAS is using these tools in accordance with policies and regulations and if the tools are reliable resources to determine price reasonableness when awarding and exercising option extensions.

Purpose

This audit was included in our *Fiscal Year 2018 Audit Plan*. We performed this audit because FAS contracting officers have increasingly used and relied on pricing tools to perform price analyses for Multiple Award Schedule (MAS) contracts.

Objectives

Our objectives were to determine if: (1) FAS has sufficient and appropriate policy, guidance, and internal controls related to the use of services pricing tools; (2) FAS contracting specialists/officers are using and documenting the use of services pricing tools in accordance with existing FAS policy and federal regulations; and (3) the services pricing tools provide accurate data for price analysis.

See **Appendix A** – Scope and Methodology for additional details.

Background

GSA's MAS Program provides customer agencies with access to more than 25 million commercial products and services under 24 different schedules. Contracts awarded under each schedule include pre-negotiated prices, delivery terms, warranties, and other terms and conditions intended to streamline the acquisition process. Schedule contracts are indefinite delivery, indefinite quantity and are typically awarded with a 5-year base period and three 5-year option extensions, totaling 20 years.

The MAS Program is authorized by two statutes: Title III of the Federal Property and Administrative Services Act of 1949 and Title 40, USC 501, *Services for Executive Agencies*. MAS Program acquisitions are governed by regulatory guidance established within the Federal Acquisition Regulation (FAR). The program is also governed by the General Services Administration Acquisition Regulation (GSAR), which contains agency acquisition policies and practices, contract clauses, solicitation provisions, and forms that control the relationship between GSA and contractors; as well as the General Services Administration Acquisition Manual (GSAM), which contains the GSAR and nonregulatory agency acquisition guidance.

The intent of the MAS Program is to leverage the government's buying power in an effort to provide customer agencies with competitive, market-based pricing. The Competition in

Contracting Act of 1984 (41 USC 152), provides that procedures established under GSA's MAS Program are competitive as long as MAS orders and contracts result in the lowest overall cost alternative to meet the government's needs. GSA's contracting officers are required to seek the best price granted to the contractor's most favored commercial customer under the premise that the commercial marketplace establishes best pricing.

Before awarding MAS contracts, GSA contracting officers must make a determination that the prices are fair and reasonable. Specifically, FAR 15.403-3(c)(1), *Requiring data other than cost or pricing data*, requires that the contracting officer perform a price analysis to determine fair and reasonable pricing whenever acquiring a commercial item or service. The GSAM provides contracting officers with different requirements and evaluation methods to determine fair and reasonable pricing for offers with access to transactional data and without access to transactional data. They are as follows:

- GSAR 538.270-1, *Evaluation of offers without access to transactional data*, provides that the government is required to seek the offeror's best price (i.e., the most favored customer's price) and outlines methods that contracting officers should use to compare the terms and conditions of the MAS solicitation with those of the offeror's commercial customers.
- GSAR 538.270-2, *Evaluation of offers with access to transactional data*, also known as the Transactional Data Reporting¹ pilot, does not require commercial sales practices information but, rather, establishes an order of preference that prioritizes prices paid information as the primary basis to determine price reasonableness. When a price reasonableness determination cannot be made using prices paid information, contracting officers are advised to use contract-level pricing information from other MAS and government-wide contract vehicles for same or similar items to determine price reasonableness.

Purpose and Development of Pricing Tools

In 1998, an FAS acquisition center, now known as the Office of Professional Services and Human Capital Categories (PSHC), created a pricing tool based on awarded MAS services contracts. The collected data became the basis for the FAS pricing tool currently called the Region 10 FAS Contract Operations Division Contractors Database, labor category pricing tool (CODCD). The acquisition center intended to use this tool to satisfy the requirements of FAR 15.404-1(b)(2), *Proposal Analysis Techniques*, which provides price analysis techniques to ensure fair and reasonable pricing. In particular, the tool was created to reflect one of the analysis technique examples included in the FAR clause that allows contracting officers to compare the

¹ On June 23, 2016, GSA published a final rule in the Federal Register establishing Transactional Data Reporting for orders placed against GSA contracts. Under the rule, contractors are required to report transactional data, including prices paid by government customers, for products and services sold under their respective GSA contracts.

offered pricing to previously awarded government contract pricing, if both the validity of the comparison and the reasonableness of the previous price(s) can be established.

In September 2009, the GSA Office of Inspector General issued an audit report, which concluded that PSHC's pricing tool was an inadequate basis for price determinations because it contained inconsistent data and inaccurate computations.² The audit also found that contracting officers misapplied the pricing tool search results. In response, FAS agreed that reliance on this tool without additional analysis, such as an evaluation of invoiced commercial pricing, was insufficient to make determinations of fair and reasonable pricing. Consequently, FAS issued Operational Notice AO-09-004, *Use of Pricing Databases for Evaluating MAS Offers*, effective from December 11, 2008, through September 28, 2018, which concluded:

[w]hen evaluating whether proposed prices for a prospective MAS contract award are fair and reasonable, the preferred methodology is to utilize existing data such as a verifiable invoice, catalog or price list information to substantiate the proposed prices. Other government contracts may also be used to the extent the currency and relevance of the existing contract can be established. Given the volume of contracts awarded within the MAS program, multiple valid comparators are often available. Automation of this process via the use of a database of existing contract prices can be useful as long as the output of such a tool is used as a benchmark or "market range" within which prices could be reasonable. Using such a tool to generate absolute, numerical negotiation objectives is strongly discouraged.

In November 2014, PSHC began developing another pricing tool, known as the Contract-Awarded Labor Category tool (CALC) to expand the scope of the CODCD tool for use across FAS. According to FAS, the CALC tool includes virtually the same functionality as the CODCD tool, but also contains labor rate data from additional schedules to allow broader use outside of the professional services schedule. PSHC maintains both the CALC and CODCD tools, and allows contracting officers to use either to perform price analyses.

The CALC tool became available to the public in May 2015 to allow ordering agency contracting officers to likewise use the tool for price comparisons. Its interface allows users to query the tool for a labor category title, with additional optional filters for more precise price analysis, as shown in *Figure 1*.

² *Review of Consistency in Implementing Policy Across Acquisition Centers* (Report Number A070118/Q/A/P09007, September 30, 2009).

Figure 1 – Screenshot of CALC Query Interface

The screenshot displays the 'Search CALC' interface. At the top, there is a dropdown menu labeled 'Search labor categories in 18 contract vehicles' and a text input field 'Type a labor category'. Below these is an 'Exact match' checkbox. The main section, 'Hourly rate data', shows 'Showing 200 of 76,893 results' and a histogram of 'Daily price (hourly rate)'. The histogram has a peak at \$111. Below the histogram are three boxes: 'Std deviation -1 \$42', 'Average price \$111', and 'Std deviation +1 \$181'. To the right of these is a 'Proposed price' section with a '\$' input and a 'Go' button. At the bottom left are buttons for 'Download graph' and 'Export data (CSV)'. On the right side, there is an 'Optional filters' section with fields for 'Education level' (a dropdown), 'Experience' (a range from 0 to 45 years), 'Worksite' (a dropdown with '(all)' selected), 'Business size' (a dropdown with '(all)' selected), and 'Contract year' (a dropdown with 'Current', '+1', and '+2' options).

In addition to the labor category title, users can query the data using optional filters as outlined below:

- Contract Vehicles: User can select one or several of 18 schedules;
- Education level: High School, Associate's, Bachelor's, Master's, PhD;³
- Experience: User selected range between 0-45 years;
- Worksite: Customer, Contractor, Both, All;⁴ and
- Business Size: Small business, Other than small, All.

However, if optional filters are not used, the tool will provide all records containing the searched labor category title by default. Once filtered, CALC allows users the ability to export and download the pricing tool output for purposes of documentation and additional analysis.

³ Users can select one or multiple education level options.

⁴ "Customer" worksite means work is performed at a government site while "Contractor" worksite means work is performed at a contractor site. "Both" will capture records for customer and contractor worksites, and "All" will include all records regardless of worksite.

Results

To assist its contracting officers in evaluating pricing proposals for MAS service contracts, FAS developed the CALC and CODCD pricing tools. However, flawed use of these tools often results in invalid price analyses and price reasonableness determinations that fail to leverage the government's buying power in negotiations and could result in federal agencies overpaying for services.

We found that FAS contracting officers used flawed methodologies and practices when performing analyses with the pricing tools. Contracting officers relied either solely or primarily on the pricing tools to establish price reasonableness, inappropriately based pricing comparisons on labor categories that were not "same or similar," used inconsistent sampling methods, and used an inappropriate basis to establish the acceptable price ranges. We also found that the data in the CALC tool is incomplete, inaccurate, and duplicative; and as a result, may skew the price analyses. Finally, we found that FAS contracting officers did not adequately document their use of the pricing tools to support price analyses and pricing determinations.

Finding 1 – FAS contracting officers use flawed methodologies and practices when performing price analysis with the CALC and CODCD pricing tools.

FAS's use of the CALC and CODCD pricing tools fails to fulfill the purpose of the MAS Program and does not comply with the FAR and FAS policy. In particular, FAS contracting officers used flawed methodologies and practices to perform price analyses. This occurred because FAS does not have sufficient and appropriate policy, guidance, or controls regarding the use of the CALC and CODCD tools. As a result, FAS contracting officers failed to leverage the government's buying power in negotiations and federal agencies may overpay for services.

We identified four areas of concern regarding the use of the CALC and CODCD pricing tools that call into question the validity of price analyses performed. Specifically, FAS contracting officers:

- Either solely or primarily relied on the pricing tools and failed to seek contractors' best commercial price as required by GSAR 538 or use cost build-up as recommended by FAS policy;
- Relied on pricing comparisons that do not meet the criteria of "same or similar," as prescribed by FAR 15.4;
- Inconsistently sampled labor categories for price analysis; and
- Used an inappropriate basis to establish acceptable price ranges.

These concerns are discussed in detail in the following subsections.

Reliance on Pricing Tools Without Additional Analysis

In relying on the pricing tools to establish fair and reasonable pricing, FAS contracting officers failed to seek contractors' best commercial price as required by GSAR 538 or use cost build-up as recommended by FAS policy.

According to GSAR 538.270-1, when offerors have commercial catalogs, contracting officers should negotiate concessions from established catalogs and seek to obtain the offeror's best price given to the most favored customer. Further, FAS Operational Notice AO-09-004 emphasized that, "[i]f the offeror has only government sales and/or no hourly labor rates with which to make a comparison, then reliance on a pricing database is not adequate. In such cases, 'cost build-up' should be used." Cost build-up is uncategorized cost data, consisting of direct and indirect labor costs as well as profit, provided by a contractor to support its proposed rates.

However, in many cases, FAS contracting officers have not followed the regulation or the guidance. On 17 of the 30 contracts we examined, commercial sales practices information was required; however, the contracting officers primarily relied on the CALC and CODCD pricing tools to establish negotiation objectives and make pricing determinations, instead of evaluating the contractor's best commercial pricing as required by GSAR 538.270-1. Further, we found nine instances in our sample in which an offeror only had government sales and the contracting officer disregarded FAS Operational Notice AO-09-004 and did not use cost build-up or any other additional analysis, relying primarily on the pricing tools. This practice fails to provide adequate assurance that the awarded prices were fair and reasonable.

In addition, 4 of the 30 contracts we examined were subject to the TDR Pilot and GSAR 538.270-2. In each of those contracts, prices paid information was not available and contracting officers relied solely on the CALC and CODCD pricing tools to establish negotiation objectives and make pricing determinations. While this is allowed by regulations and policy, we are concerned with sole reliance on the pricing tools to make pricing determinations due to the issues presented further in this finding.

Ultimately, when the pricing tools are the sole or primary basis for evaluating pricing, FAS contracting officers are not leveraging the collective buying power of the government, nor providing assurance that prices reflect the lowest overall cost alternative to meet the government's needs.

Invalid Pricing Comparisons

FAS contracting officers stated that when they perform price analyses using the pricing tools, they initially query the tools for the exact labor category title, education, and experience proposed. However, because there is no appropriate policy, guidance, or controls regarding the use of pricing tools, when the pricing tool does not provide what contracting officers consider enough labor rate comparisons, contracting officers will make the query criteria less specific,

rather than use another method of price analysis. Specifically, when FAS contracting officers are unsatisfied with the pricing tool results they query:

- Labor category titles that are more broad or vague;
- A larger range of education or experience requirements; or
- Additional contract vehicles.

While less specific queries return a greater number of results, the output is less comparable to the labor category evaluated. For example, a contracting officer evaluated the offered labor category “Helpdesk/Desktop Specialist” and conducted a query in the pricing tool for the labor category “Specialist.” We replicated the query using the same criteria input by the contracting officer, and found that the pricing tool results included non-comparable labor categories such as “Warehouse Specialist,” “Graphic Specialist,” and “Transportation Specialist.” Based on our review of the contract file, the contracting officer did not perform any additional steps to assess the comparability of these labor categories to the labor category evaluated. However, FAR 15.404-1(b)(2), *Proposal Analysis Techniques*, requires pricing comparisons among same or similar labor categories.

Further, we found inconsistent methodologies employed in generating pricing tool queries. Specifically, contracting officers are not always using the optional filters in order to obtain the most relevant labor category comparisons. For example, some contracting officers queried all years of experience (0 to 45 years), all education levels, as well as all contract vehicles, rather than inputting specific criteria. These types of queries result in non-comparable data that affect the pricing results generated by the pricing tools. In another example, the contracting officer used a larger range of experience than the proposed labor category, resulting in a market average of \$140.37 price per hour. However, when the audit team excluded the invalid data, it calculated an average labor rate of \$114.60. **Appendix B** presents this example in more detail.

In total, we determined that contracting officers relied on invalid comparisons generated from the pricing tools to award labor rates on 25 of the 30 contracts sampled in our examination. Contracting officers’ practices of diluting the search criteria results, as well as their failure to assess whether comparisons are same or similar, result in price determinations that are not in accordance with FAR 15.404-1 and put the government at risk of overpaying for services.

Inconsistent Labor Category Sampling Methods

When contractors propose a large number of labor categories under an MAS contract, FAS contracting officers perform price analyses on sampled labor categories because analyzing all offered labor categories would be too burdensome. PSHC training provides guidance as follows:

If a firm submits over 20 labor categories, it is up to [contracting officer] to determine what is reasonable. If a [logistics] firm submitted 75 labor categories, an evaluation of 20 might not be considered a fair representation, so this is when you might want to talk to the contractor to find out what labor categories are

used on a recurring basis; conduct a comparison on those and possibly any outliers that exist. Or your narrative might reflect that the CS reviewed 20 out of 75 after careful consideration of factors x, y, and z. There is no hard and fast rule on proper analysis, just remember that the narrative should reflect the actual approach used.

This PSHC guidance allows FAS contracting officers to use their own discretion to sample labor categories evaluated for price analysis. We found in our sample that contracting officers often took very limited samples, using varying methodologies to select the labor categories analyzed, the majority of which were not based on labor categories “used on a recurring basis” or with substantial sales. In particular, contracting officers only analyzed labor categories based upon random sampling or some other basis that did not consider contract sales volume. Performing such limited analysis with no consideration of labor category significance puts government agencies at risk of overpaying for their most needed services.

In addition, contracting officers only evaluated 27 percent of offered labor categories for price analysis. Accordingly, 73 percent of offered labor rates were awarded without a current price analysis. However, once awarded, these labor categories were uploaded into the pricing tools for use in evaluating other contract pricing. We are concerned that the inclusion of such a large percentage of labor categories without price assurance compromises the integrity of the pricing tools.

Performing price analysis on a more robust sample that includes labor categories with the most sales, or those “used on a recurring basis,” as emphasized in PSHC’s training guidance above, is more appropriate, would improve the reliability of the sampling process, and increase the integrity of the pricing tools.

Inappropriate Basis to Establish Acceptable Price Ranges

FAS contracting officers are using an inappropriate basis to establish acceptable price ranges for fair and reasonable pricing.

When a contracting officer queries the CALC and CODCD pricing tools, the tools provide an average hourly rate as well as one standard deviation above and below the average hourly rate. Standard deviation is a statistical measurement that quantifies the amount of variation or dispersion of a set of data values. The contracting officers from PSHC consider rates between the average and one standard deviation above the average to be fair and reasonable.

However, during our audit fieldwork, the majority of FAS contracting officers we interviewed did not understand the concept of standard deviation. When asked for a basis for their price determination, they referred us to a template they use to document negotiations. The template contains standard language stating that rates between the average and one standard deviation are fair and reasonable.

We have several concerns with using the standard deviation as the basis for determining fair and reasonable pricing:

- First, FAS’s use of standard deviation to establish a “[r]ange one would expect to pay...” is a misapplication of statistics because standard deviation measurements have no relationship to the reasonableness of a proposed rate. Specifically, the variation of the data set does not indicate whether or not a price is reasonable, it just describes a characteristic of the data set. Therefore, contracting officers should not use standard deviation as a basis for pricing determinations. FAS recognized this concern in an update to FAS’s CALC webpage on August 20, 2019, which clarified that standard deviation is not a means for determining whether pricing is fair and reasonable.
- Second, when contracting officers do not filter the tools to remove non-comparable labor categories, which we discussed previously, both the average and standard deviation figures have no relationship to the pricing of the labor category under review.
- Finally, the PSHC template’s allowance for rates up to one standard deviation above the average to be considered fair and reasonable increases the risk that contracting officers will award inflated rates on subsequent MAS contracts. In other words, awarding a rate between the average and plus one standard deviation on one contract will increase the threshold for reasonable pricing on the next contract analyzed with similar labor.

Finding 2 – FAS contracting officers rely on the CALC pricing tool although its data is incomplete, inaccurate, and duplicative.

The CALC pricing tool contains incomplete, inaccurate, and duplicative data records that contracting officers rely upon in performing price analyses. As of January 29, 2019, we identified issues with at least 25 percent of the data records contained in the CALC tool, as presented in *Figure 2*. A data record represents all searchable criteria for a labor category offered under an MAS services contract uploaded into the pricing tool (e.g., minimum education and experience requirements, schedule number, work site location, etc.).

Figure 2 – Identified Data Issues

	Count of Data Records	% of Total CALC Data Records
Incomplete Data	13,563	18.2%
Inaccurate Data	3,374	4.5%
Duplicative Data	1,705	2.3%
Total	18,642	25.0%

- **Incomplete Data** – Data records that did not contain work site and/or educational requirements;

- **Inaccurate Data** – Primarily comprised of data records that include pricing from prior or future option years or data records from canceled and expired contracts; and
- **Duplicative Data** – Instances in which FAS uploaded contracts into CALC with multiple, repetitive data records for a single labor category.

According to FAS officials, as well as the guidance on the CALC webpage, contracting officers are responsible for uploading and updating pricing information from awarded contracts in the pricing tools. However, based on the data issues we identified, this guidance is not sufficient to ensure that contracting officers upload and update contract data in CALC. Therefore, controls and guidance are necessary to ensure that pricing data uploaded into the pricing tools is complete, accurate, and consistent. **Appendix B** presents an example where an FAS contracting officer relied on inaccurate pricing data, which significantly affected pricing tool results.

Based on all CALC data records available on January 29, 2019, we also determined that over 27 percent of the data corresponds to MAS contracts with no reported sales in calendar year 2018. Since the pricing tools do not identify the volume of sales associated with each contract, contracting officers do not consider sales volumes when performing price analyses. Labor categories and rates with no sales may be indicative of above market rates, which will be included in, and potentially skew, pricing tool results unfavorably and result in government customers overpaying for services. **Appendix B** also includes an example where the six highest rates included in the search results from the tool were associated with contracts with no sales.

Finding 3 – FAS contracting officers do not adequately document their use of the pricing tools.

FAS contracting officers did not adequately document their use of the pricing tools to support price analyses and pricing determinations on all 30 contracts examined. In particular, contracting officers did not document detailed output from the pricing tools for the labor category comparisons included in their price analyses. For example, contracting officers did not include the labor category titles, contract numbers, years of experience, education levels, and any documentation regarding the review of the terms and conditions of the associated contracts. FAR 4.801, *Government Contract Files*, requires that contract file documentation provide a complete background as a basis for informed decisions, to support actions taken, and to provide information for reviews and investigations. Without this detail, contracting officers are unable to support that the pricing comparisons relied upon in price analyses are same or similar to the labor category proposed, as required by FAR 15.4.

Further, the overall lack of documentation conflicts with FAS Policy and Procedure 2018-03, Proper Documentation of Price Analysis Decisions – Federal Supply Schedule (FSS) Program, which reiterates the requirements of FAR 4.801 and further provides that sufficient detail must be documented:

[n]ot just when evaluating new offers, but whenever a determination of fair and reasonable pricing is made, e.g., modification requests, novation requests, exercise of options, and migration of contracts.

Contract data in the tools frequently changes; therefore, it is crucial that contracting officers document detailed pricing tool output as it cannot be replicated at a later date. The lack of documentation also precludes FAS management from adequately reviewing price analyses performed using the pricing tools. Accordingly, there are insufficient internal controls to protect the integrity of price analyses and prevent potential manipulation to justify labor rates that are not in the interest of the government.

Conclusion

To assist its contracting officers in evaluating pricing proposals for MAS service contracts, FAS developed the CALC and CODCD pricing tools. However, flawed use of these tools often results in invalid price analyses and price reasonableness determinations that fail to leverage the government's buying power in negotiations and could result in federal agencies overpaying for services.

We found that FAS contracting officers used flawed methodologies and practices when performing analyses with the pricing tools. Contracting officers relied either solely or primarily on the pricing tools to establish price reasonableness, inappropriately based pricing comparisons on labor categories that were not "same or similar," used inconsistent sampling methods, and used an inappropriate basis to establish the acceptable price ranges. We also found that the data in the CALC tool is incomplete, inaccurate, and duplicative; and as a result may skew the price analyses. Finally, we found that FAS contracting officers did not adequately document their use of the pricing tools to support price analyses and pricing determinations.

FAS should take appropriate action to resolve the issues outlined in this report to ensure the contracting officers' use of the pricing tools complies with the FAR and FAS policy and results in price analyses that fulfill the purpose of the MAS Program. In addition, FAS should establish controls to ensure that data contained and uploaded into the pricing tools is complete, accurate, and consistent, and seek to automate the process to reduce human error. Lastly, FAS should enforce existing policy to ensure contracting officers adequately document their use of the pricing tools in contract files.

Recommendations

We recommend that the FAS Commissioner:

1. Cease use of the CALC and CODCD pricing tools until comprehensive policy, guidance, and controls are established and implemented to ensure resultant price analyses are valid. Specifically, FAS must ensure that:
 - a. Pricing tools are used only as part of a larger negotiation strategy that seeks the lowest overall cost alternative to meet the needs of the federal government, as required by the Competition in Contracting Act of 1984 (41 USC 152);
 - b. More reliable pricing information is used to the fullest extent possible;
 - c. Pricing tool output is analyzed and verified to meet "same or similar" requirements of FAR 15.4;
 - d. Emphasis is placed on the evaluation of labor categories with the most sales;
 - e. Labor categories used as benchmarks come from contracts with recent sales history; and
 - f. Contracting officers do not use standard deviation as a basis to determine whether proposed rates are fair and reasonable.

2. Establish controls to ensure that data contained and uploaded into the pricing tools is complete, accurate, and consistent, and identifies labor rates associated with contracts with no sales activity. In addition, FAS should seek to automate the process to reduce human error.
3. Develop and implement controls to ensure compliance with FAS Policy and Procedure 2018-03 - *Proper Documentation of Price Analysis Decisions – Federal Supply Schedule (FSS) Program* – in regards to documenting use of the pricing tools. Specifically, controls should ensure FAS contracting officers document:
 - a. The criteria used in the query of the pricing tools;
 - b. All detailed data records obtained in the pricing tool output;
 - c. A verification that labor category comparisons made using the pricing tools are “same or similar” in accordance with FAR 15.4; and
 - d. Any filtering or removal of data records the contracting officer determined were outliers or not “same or similar.”

GSA Comments

The Acting Commissioner of FAS agreed with our findings and all recommendations, except to cease use of the CALC and CODCD pricing tools until comprehensive policy, guidance, and controls are established and implemented. GSA’s written comments are included in their entirety in **Appendix C**.

OIG Response

In the Acting Commissioner’s response, she stated that FAS considered ceasing use of the CALC and CODCD pricing tools until comprehensive policy, guidance, and controls are established and implemented, but does not believe this approach will improve price analyses. The Acting Commissioner stated that temporarily ceasing use of the CALC and CODCD tools will result in decreased efficiencies and increased costs.

However, it is highly inefficient and ineffective for FAS to use flawed methodologies and practices when performing analyses with the pricing tools. Contracting officers must perform price analyses in compliance with FAR 15.4 and ensure the rates awarded on MAS contracts represent the lowest cost alternative to meet the government’s needs. Accordingly, we urge GSA to reconsider this recommendation and discontinue the use of the CALC and CODCD tools until comprehensive policy, guidance, and controls are established and implemented to ensure resultant price analyses are valid and aligned with the purpose of the MAS Program.

Audit Team

This audit was managed out of the Mid-Atlantic Region Audit Office and conducted by the individuals listed below:

Thomas Tripple	Regional Inspector General for Auditing
Susana Bandeira	Audit Manager
Justin Long	Auditor-In-Charge
Samuel Francis	Auditor

Appendix A – Scope and Methodology

We examined the pricing tools available to, and used by, GSA contracting officers during Fiscal Years 2017 and 2018.

To accomplish our objectives, we:

- Reviewed the FAR, GSAM, and FAS policies and guidance related to MAS pricing and contract file documentation;
- Interviewed PSHC and Office of Information Technology Schedule (Schedule 70) officials to gain an understanding of their use of FAS's pricing tools;
- Obtained and analyzed the underlying pricing data contained in both the CALC and CODCD pricing tools to determine whether the data is accurate, complete, consistent, and adequate for price analysis; and
- Examined contract documentation for a judgmentally selected sample of 30 MAS services contracts, including 14 Professional Services Schedule contracts and 16 Schedule 70 contracts, to determine if contracting officers are using and documenting the use of FAS's pricing tools in accordance with existing policy and federal regulations.

We conducted the audit between April 2018 and April 2019 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.

Internal Controls

Our assessment of internal controls was limited to those necessary to address the objectives of the audit.

Report Qualification

Our examination of the pricing data contained in FAS's pricing tools was limited to data records uploaded into the CALC tool as of January 29, 2019. We performed testing of the accuracy of the data using automated and manual techniques to identify the data issues reported in *Finding 2*. We were limited in the amount of manual testing we could perform as to the accuracy of data records in the pricing tools, and the figures presented in the report represent the data issues we identified from our limited testing. As a result, additional data inaccuracies could exist that we did not identify.

Appendix B – Example of Inaccurate Data Included in Price Analysis (Note 1)

Labor Category Title	Price	Education	Experience	Vendor / Contract	Audit Observations	Notes
Information Security Engineer	\$175.92	Bachelor's	5 years	TRGroup, Inc GS-35F-218GA	Invalid Comparison	Note 2
Information Security Engineer	\$165.11	Bachelor's	8 years	Leapoint LLC GS-35F-418BA	Inaccurate Data in CALC	Notes 3 & 4
Information Security Engineer	\$161.87	Bachelor's	8 years	Leapoint LLC GS-35F-418BA	Inaccurate Data in CALC	Notes 3 & 4
Information Security Engineer	\$158.70	Bachelor's	8 years	Leapoint LLC GS-35F-418BA	Inaccurate Data in CALC	Notes 3 & 4
Information Security Engineer	\$155.58	Bachelor's	8 years	Leapoint LLC GS-35F-418BA	Inaccurate Data in CALC	Notes 3 & 4
Information Security Engineer	\$152.53	Bachelor's	8 years	Leapoint LLC GS-35F-418BA	Inaccurate Data in CALC	Notes 3 & 4
Senior Information System Security Engineer	\$135.04	Bachelor's	10 years	BCT LLC GS-35F-238CA	Invalid Comparison	Note 4
Information Security Engineer	\$119.65	Bachelor's	9 years	DT Professional Services LLC GS-35F-227CA	Invalid Comparison	Notes 2 & 4
Information System Security Engineer	\$118.67	Bachelor's	5 years	BCT LLC GS-35F-238CA	Valid Comparison	
Information Technology Network Security Engineer	\$117.87	Bachelor's	4 years	Lanmark Technology, INC. GS-35F-0827M	Invalid Comparison	Note 2
Senior/Lead Engineering (Information Security)	\$112.94	Bachelor's	5 years	Pamela P Dessaso GS-35F-323BA	Inaccurate Data in CALC	Note 3
Information Security Development Engineer	\$110.52	Bachelor's	6 years	Dan Solutions, Inc. GS-35F-029CA	Valid Comparison	
Contracting Officer's Calculated Market Average:					\$ 140.37	Note 5
Per Audit Market Average Based on Appropriate Comparisons					\$ 114.60	
Per Audit Rate					\$ 114.43	

Appendix B – Example of Inaccurate Data Included in Price Analysis (cont.)

Notes:

1. This appendix presents an example of a price analysis provided by an FAS contracting officer, which relied on inaccurate data and invalid comparisons from the CALC tool. The contracting officer performed a query for a proposed labor category, “Information Security Engineer II” and obtained output from the CALC tool that included 12 results, with an average rate of \$140.37. The preaward audit presented a rate of \$114.43 for the contracting officer to target in negotiations.
2. There were no sales under these contracts in Fiscal Years 2018 and 2019; whereas the proposed labor category is a top-selling labor category under the current contract. Therefore, the comparison between the proposed labor category and these labor categories is inappropriate.
3. FAS cancelled these contracts due to low sales in Fiscal Year 2017. Therefore, the data included in CALC for these contracts was invalid and should have been removed when the contracts were cancelled.
4. The minimum qualifications for this contractor's labor category are higher than the proposed labor category (i.e., 8, 10, and 9 years of experience, respectively versus 5 years). Because there is no consideration made to account for the difference in qualification standards, this contractor’s labor category would not be a valid comparator.
5. After removal of the invalid comparisons, the average rate of the remaining two valid comparators is \$114.60. However, the contracting officer relied on the invalid comparisons and resulting average rate of \$140.37 to award the proposed rate of \$139.70.

Appendix C – GSA Comments



Federal Acquisition Service

December 11, 2019

MEMORANDUM FOR: Thomas Tripple
Regional Inspector General for Auditing
Office of the Inspector General

FROM: Julie Dunne 
Acting Commissioner
Federal Acquisition Service (Q)

SUBJECT: Response to Draft Report "FAS's Use of Pricing Tools
Results in Insufficient Price Determinations" Report Number
A180068

Thank you for the opportunity to comment on the referenced draft audit report, *FAS's Use of Pricing Tools Results in Insufficient Price Determinations*, Report Number A180068, dated November 19, 2019, and for your cooperation in working with us. We carefully reviewed the draft report and agree:

- Contracting officers within the Federal Acquisition Service (FAS) can benefit from additional guidance regarding the use of labor category pricing tools.
- Improvements in CALC data management should be implemented.
- Contracting officers should include complete discussions of - as well as documentation of - data used from these tools in their pricing reasonableness determinations.
- Review of contracting officer's pricing determinations should include a complete review of tool-derived pricing to ensure it is complete.

To address the concerns FAS intends to take the following actions:

- FAS Heads of Contracting Activities (HCA), whose organizations use these tools, will issue immediate guidance regarding the OIG's findings to:

U.S. General Services Administration
1800 F Street NW
Washington, DC 20405

Appendix C – GSA Comments (cont.)

- Provide their contracting workforce with guidance on how to effectively use data from these tools - to include guidance regarding the purpose and appropriate use of standard deviation pricing benchmarks.
- When these tools are used to support a contracting officer's price reasonableness determination, clarify documentation and review standards for both contracting officers and reviewing officials.
- Provide instructions regarding CALC data upload requirements (as appropriate.)
- FAS will develop, and maintain, a user guide for CALC to support FAS contracting officers in appropriate use of the tool. This guide will augment and formalize guidance provided by HCA's to their contracting officers. The OIG's feedback regarding language included in the guide will be requested.
- FAS will improve data management within the CALC tool to include:
 - removal of cancelled contract information
 - flagging of contracts with no sales
 - ensuring complete contract information
 - removal of duplicative contract information

In addition, FAS provides responses to the OIG's specific recommendations as follows:

OIG Recommendation 001

Cease use of the CALC and CODCD pricing tools until comprehensive policy, guidance, and controls are established and implemented to ensure resultant price analyses are valid. Specifically, FAS must ensure that:

- a. Pricing tools are used only as part of a larger negotiation strategy that seeks the lowest overall cost alternative to meet the needs of the federal government, as required by the Competition in Contracting Act of 1984 (41 USC 152);
- b. More reliable pricing information is used to the fullest extent possible;
- c. Pricing tool output is analyzed and verified to meet "same or similar" requirements of FAR 15.4;
- d. Emphasis is placed on the evaluation of labor categories with the most sales;
- e. Labor categories used as benchmarks come from contracts with recent sales history;
- f. Contracting officers do not use standard deviation as a basis to determine whether proposed rates are fair and reasonable.

Appendix C – GSA Comments (cont.)

FAS Response: FAS agrees when labor category pricing tools are used in support of price reasonableness determinations, additional guidance to contracting officers is needed. FAS Heads of Contracting Activities (HCA), whose organizations use these tools, will issue immediate guidance regarding the OIG's findings to:

- Provide their contracting workforce with guidance on how to effectively use data from these tools - to include guidance regarding the purpose and appropriate use of standard deviation pricing benchmarks.
- When these tools are used to support a contracting officer's price reasonableness determination, clarify documentation and review standards for both contracting officers and reviewing officials.

Additionally, FAS will develop and maintain a user guide for CALC to support FAS contracting officers in appropriate use of the tool. This guide will augment and formalize guidance provided by HCA's to their contracting officers. The OIG's feedback regarding language included in the guide will be requested.

FAS considered the recommendation to suspend use of CALC and CODCD , but for the following reasons, FAS does not believe this approach will achieve our shared goal of improving price analyses:

- **Decreased efficiency:** Contracting officers would conduct individual searches of the Internet to inform their comparative price analyses. This less efficient process involves searches of a variety of databases and other federal or commercially available information sites. It is time intensive and results in pricing information that is less thorough and detailed.
- **Increased cost:** Given the number of MAS offers evaluated annually¹ a 'manual' collection process of comparative data -- for each proposal -- is very costly. Further, this investment will not improve the quality of information being used by our contracting professionals.
- Regardless of how comparative pricing information is collected, its use in a price reasonableness determination is left to the judgment of our contracting officers.
- Disallowing access to aggregated information about previously awarded MAS contracts does not further our shared goal of improving pricing. Quality price analyses are a result of training, expertise, and appropriate controls. FAS believes our continued focus in these areas will improve how comparative data is used in our MAS award documentation.

¹ For example, in FY 2019 FAS's Office of Professional Services and Human Capital Categories received 975 offers, awarding 484.

Appendix C – GSA Comments (cont.)

OIG Recommendation 002

Establish controls to ensure that data contained and uploaded into the pricing tools is complete, accurate, and consistent, and identifies labor rates associated with contracts with no sales activity. In addition, FAS should seek to automate the process to reduce human error.

FAS Response: FAS agrees controls to ensure data integrity within the CALC tool should be established. FAS will take immediate steps to:

- Ensure CALC data management protocols are documented and managed well.
- Remove cancelled contract information.
- Flag contracts with no sales.
- Ensure complete contract information within the tool.
- Remove duplicate contract information.

FAS has already begun work and investments to improve its contract management, catalog management, and pricing tools through its Federal Marketplace initiatives. This work will result in automating management of pricing data, and reduce data errors currently experienced within the CALC tool.

OIG Recommendation 003

Develop and implement controls to ensure compliance with FAS Policy and Procedure 2018-03 - Proper Documentation of Price Analysis Decisions – Federal Supply Schedule (FSS) Program – in regards to documenting use of the pricing tools. Specifically, controls should ensure FAS contracting officers document:

- a. The criteria used in the query of the pricing tools;
- b. All detailed data records obtained in the pricing tool output;
- c. A verification that labor category comparisons made using the pricing tools are “same or similar” in accordance with FAR 15.4; and
- d. Any filtering or removal of data records the contracting officer determined were outliers or not “same or similar.”

FAS Response: FAS agrees with this recommendation, and will include this guidance in HCA direction to contracting officers who use the CALC tool, in its CALC user guide, and its guidance to reviewing officials.

Appendix D – Report Distribution

GSA Administrator (A)

GSA Deputy Administrator (AD)

Acting FAS Commissioner (Q)

Acting Deputy Commissioner (Q1)

Deputy Commissioner (Q2)

Acting Chief of Staff (Q0A)

Program Analysis Officer (Q1A)

Assistant Commissioner, Office of Policy and Compliance (QV)

Financial Management Officer, FAS Financial Services Division (BGF)

Acting Regional Administrator (10A)

Assistant Commissioner, Office of Professional Services and Human Capital Categories (QR)

Deputy Regional Commissioner (QR)

Director of Financial Management (BG)

Chief Administrative Services Officer (H)

Audit Management Division (H1EB)

Assistant Inspector General for Auditing (JA)

Director, Audit Planning, Policy, and Operations Staff (JAO)