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Price Analysis on Commercial Item Purchases Within the Department of Defense

2 October 2013

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Abstract

Recent reviews by the Department of Defense Office of the Inspector General between 2001 and 2011 concluded that new pricing skill sets have not always been present in the purchase of commercial items. The current research focuses on (1) collecting and interpreting price analysis data and (2) using that data to determine the appropriateness of current pricing memoranda and the proper use of price analysis and pricing memoranda to improve acquisition pricing payoffs.

This research includes contract file reviews from Department of Defense installations to determine whether the price reasonableness determination was completed and documented in accordance with procedures outlined in the Federal Acquisition Regulation (FAR). The research also includes a survey, with the same purpose, of contract specialists, contracting officers, price analysts, and other personnel. The data collected from the personnel survey is used to make comparisons with the data collected during the contract file reviews. These comparisons explain the gap between contracting personnel's perception of their ability to complete price reasonableness determinations and the actual documentation contained within the contract files. The authors also identify key areas of weakness in the price reasonableness determination documents and offer recommendations that could potentially reduce the price of commercial goods and services. Finally, the authors make suggestions for future research.

Keywords: pricing, contract pricing, pricing memos, price reasonableness, market research, commercial items, price analysis



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Disclaimer: The views represented in this report are those of the author and do not reflect the official policy position of the Navy, the Department of Defense, or the federal government.



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Price Analysis on Commercial Item Purchases Within the Department of Defense

Introduction

Background

This research builds upon the work conducted in collaboration with the authors' thesis students Andrew Redfern, Erick Nelson, and Matthew White. Parts of this document are extracted from their thesis. The authors would like to acknowledge their contribution and their efforts in this project (see Redfern, A., Nelson, E., and White, M.)

Over the last decade, the federal acquisition workforce has had to adapt to the need for new skill sets. Procurement reforms in the late 1990s have required contracting specialists to have a greater knowledge of market conditions, industry trends, and market prices for commercial items (as defined in Federal Acquisition Regulation [FAR], 2012, 2.101). Because commercial items are an exception to the statutory requirement for cost or pricing data, price analysis shall be done on all commercial purchases whether it is single or multiple sourced, since there should be little need for cost data and the performance of cost analysis. This new movement toward identifying items as commercial and therefore using market forces to determine reasonable prices has required the increase of both market research and price analysis methods.

Most contract pricing of acquisitions was conducted using cost analysis before these reforms were added to the contracting regulations. This new pricing of commercial requirements required a skill set for conducting price analysis that was not emphasized in both the workplace and in Defense Acquisition University (DAU) content. Between 2001 and 2011, the Government Accountability Office (GAO) and the Department of Defense Inspector General (DoDIG) together issued 27 reports discussing concerns about commercial and noncommercial prices of weapons systems and spare parts. On May 30, 2001, the DoDIG issued Report No. D2001-129, which identified situations in which contracting officers did not obtain adequate pricing information (data other than certified cost or pricing data) for justifying price reasonableness.

In fiscal year (FY) 2001, the purchase of commercial items utilizing FAR Part 12, Acquisition of Commercial Items, accounted for 19% of the spending for goods and services by federal agencies (up from 9% from five years earlier). In FY2007



(the most current federal data published), the purchase of commercial items using FAR Part 12 (commercial procedures) accounted for 16% of the spending for goods and services by federal agencies. Within the Department of Defense (DoD), the purchase of commercial items using FAR Part 12 (commercial procedures) accounted for 19% (\$62,780,121,344) of the spending for goods and services. See Table 1.

As the level of commercial transactions and dollars spent on commercial items continues to represent a significant amount of dollars, it would give one the impression that the importance of performing appropriate price reasonableness determinations on commercial item purchases is essential.

Table 1. Federal Procurement Data System—Department of Defense Actions (2007)

Contract Type	Actions	Dollars
Delivery/Task Order against IDV	756,352	\$161,850,191,497
Definitive Contract	123,883	\$148,289,727,302
Delivery/Task Order against GSA FSS	115,673	\$10,574,507,007
Purchase Order	404,032	\$9,694,080,424
Delivery/Task Order against VA FSS	8,401	\$349,552,294
Total	1,408,341	\$330,758,058,525
Commercial Item Acquisition	Actions	Dollars
Total Commercial Item Acquisitions	665,789	\$62,780,121,344
Total	665,789	\$62,780,121,344

Note. Actions are reported individually. This table represents FY2007 through the fourth quarter.

Motivation and Goal of the Project

There have been some changes to DAU course content, with more focus on price analysis, which pertains to commercial purchases. Guidance, like the *Commercial Item Handbook*, was published in 2001 and then republished in 2011; it provides significant details on how to perform better market research and conduct adequate pricing of commercial items. Of course, regulations and policies dealing with commercial items have continued to be added and changed. As a result of this improved training, guidance like the *Commercial Item Handbook* changes in regulations and other initiatives relative to commercial items purchased since 2001; The goal of this project is as follows: Can the researchers conclude that the DoD is doing a better job in pricing commercial items? Can the DoD do a better job in pricing our commercial purchases?



Purpose of Research

This research encompasses U.S. federal government contracting. This project focuses on price reasonableness determination within the DoD. We seek to identify areas of concern or trends in regard to the proper documentation of price reasonableness and to propose solutions.

We reviewed contract files at various DoD locations to verify if the price reasonableness determinations have been performed and documented properly in accordance with the FAR. The contract file assessment included a review of end-user documentation, including the independent government cost estimate (IGCE) and market research, and whether or not the documentation is substantiated and reflects the applicable source(s) of data. The file assessment also included a review of contracting officers', contract specialists', and price analysts' documentation, including identification of the procurement type (e.g., supply, service, or construction), the FAR contracting procedures utilized, and the justification used for the price reasonableness determination.

In addition, a personnel survey was designed and distributed to contracting personnel. The collection of responses enabled the researchers to ascertain the contracting personnel's perceived level of ability as it relates to completing price reasonableness determinations. The data collected from the personnel surveys was also used to make comparisons with the data collected during the contract file reviews, as explained previously.

In this research, the authors use a general term for contracting officers, contract specialists, and price analysts: *analysts*.

\$100 Billion Goal

The DoD set a goal of finding more than \$100 billion in efficiency savings department-wide over the next five fiscal years, starting in FY2012, and redeploying these dollars to fund the warfighting capability. In 2013, the furlough of DoD civilians through sequestration was certainly telling of what lies ahead for the DoD budget.

To realize savings, gains must be achieved. In the rest of the economy, this kind of productivity growth seems the norm rather than the exception. Each year, for example, consumers buy better computers for less money. The same should be true for purchasing commercial items from the defense industry. Unfortunately, this is not the case in the DoD. For the past decade, more items have cost more. To sustain the force structure and modernize and develop future combat capabilities, the DoD must make every taxpayer dollar count.

Through this research, the authors attempted to identify issues in commercial item purchasing and propose new ideas to assist in accomplishing savings that



would meet part of this goal. Based on the results found, this could begin a stream of research findings in several DoD activities.

Objectives and Research Questions

The objective of this research is to explore the efficacy of the government's current documentation of commercial item prices and determine whether better use of price analysis and stronger pricing memos can improve acquisition pricing outcomes. The intent is to diagnose weaknesses and to suggest potential improvements. The following research questions are addressed:

- a) To what extent do pricing memos state the method of price analysis used in documenting price reasonableness? What price analysis methods are being used?
- b) Do market research reports refer to market information that improves the buyers' understanding of pricing in the marketplace?
- c) To what extent do pricing memos deviate from FAR and Defense Federal Acquisition Regulation Supplement (DFARS) requirements? What type of reviews are being done to validate the quality of pricing memos and appropriate documentation?
- d) What was the justification for price reasonableness used in the acquisition of a supply versus a service? Are the justifications similar? If not similar, what are the differences?
- e) Do pricing memos use IGCEs for price comparison? Do the IGCEs include sufficient justification/supporting information behind the cost estimates?
- f) Why do contract/purchase order files lack price reasonableness determinations?
- g) Is the current training specific to commercial items and price analysis sufficient for our contracting personnel?
- h) Can we conclude that the DoD is doing a better job in pricing commercial items? Can the DoD do a better job in pricing commercial purchases?

Organization of the Research Report

This report is organized into five sections. The first section is the introduction, which provides the background, motivation, purpose, and primary research questions. The second section is the review of current literature on price analysis, price reasonableness determinations, and commercial item pricing. The second section includes a synopsis of DoDIG reports, the current requirements of determining price reasonableness within the federal government regulations and policies, DAU courses relating to contract pricing, and published suggestions for



improvement of commercial item pricing within and outside of the federal government. The third section presents the authors' research approach and outlines the details of the contracting file checklist and contracting personnel survey. The fourth section presents the overall findings of the contract file reviews and the contracting personnel surveys. The fifth section presents answers to research questions by detailing applicable findings with the authors' analysis of such. The findings and analysis behind each research question are followed by the authors' recommendations. In addition, the fifth section includes a discussion of the significance of the authors' recommendations, suggested changes for future research work, and areas for future study.

Literature Review

Over the last two decades, the DoD has becoming increasingly aware of failures to properly apply the cost and price analysis techniques outlined in the FAR. According to several DoDIG reports between 2001 and 2011, incomplete and/or improper analysis of commercial item prices for fair and reasonableness has resulted in significant overpayment for contracted supplies, services, and construction projects by the DoD. In this section, the authors review several cases in which the DoDIG has audited DoD contracting files where price reasonableness determinations were found to be unsupported or altogether nonexistent, a thorough examination of the current requirements of determining price reasonableness within the federal government regulations, identification of DAU courses relating to contract pricing, and a compiled list of published suggestions for improvement of commercial item pricing within and outside of the federal government.

Summary of Inspector General Reports

In a 2001 report (DoDIG Report No. D-2001-129) intended for the under secretary of defense for acquisitions, technology, and logistics (USD[AT&L]), the DoDIG outlined the current state of price reasonableness determinations within the DoD. The DoDIG reviewed 145 contracting actions across the DoD. The DoDIG (2001) report surveyed 145 contracts sorted as commercial and noncommercial (p. 1). The average commercial contract value reviewed was \$7,643,396, while the noncommercial contract average was \$2,734,800. The results of the DoDIG (2001) report indicated that contracting officials utilized questionable practices in determining fair and reasonable price and failed to properly document the contracting files of their findings. In Report No. D-2001-129, the DoDIG (2001) stated the following:

Contracting officials lacked valid exceptions from obtaining certified cost or pricing data, and failed to obtain required data in 46 (32 percent) of the 145 contracting actions. In addition, price analysis



documentation did not adequately support price reasonableness in 124 (86 percent) of those 145 actions. (p. i)

Table 2, taken from the DoDIG (2001) report, presents “a breakdown of invalid exceptions along with all of the inadequate documentation supporting price justifications and overpriced actions” (DoDIG, 2001, p. 5).

Table 2. Breakdown of Invalid Exceptions and Inadequate Documentation
(DoDIG, 2001)

<u>Exception Used</u>	<u>Contract Actions</u>	<u>Invalid Exception</u>	<u>Inadequate Price Justification</u>	<u>Data Sufficient To Compute Overpricing</u>
Commercial	46	11	42	12
Competition	16	9	9	9
Waiver	8	4	4	1
No Exception	16	16	16	5
Threshold	59	6	53	25
Total	145	46	124	52

The DoDIG (2001) report stated, “All of the 46 contract actions that were deemed to have invalid exceptions had inadequate documentation to support the price reasonableness determinations.” The report also stated that

of the 145 contract actions, 62 were below the \$500,000 threshold. Fifty nine of these actions used the threshold as the exception from obtaining certified cost or pricing data including 6 that circumvented the threshold and which the authors classified as invalid exceptions. Three of the 62 actions used the commercial item status as the exception. Of the remaining 83 contract actions above the threshold, 46 had invalid exceptions. For the 46 actions with invalid exceptions, 23 were Army, 6 Navy, 11 Air Force, and 6 Defense agencies. For the 124 actions with inadequate price justifications, 46 were Army, 20 were Navy, 35 were Air Force, and 23 were Defense agencies.

In addition, the report stated that

contracting officials determined price reasonableness for the 145 contract actions, valued at \$652 million (overall contract value of \$3.1 billion), primarily through the use of contractors’ catalog prices, prior history, competition, and cost analysis. Price reasonableness was not



adequately determined in 124 of these actions, totaling \$408.9 million. (DoDIG, 2001)

Table 3 depicts the price reasonableness problems related to these 124 contract actions. Of the 124 contract actions, 19 were for services and 105 were for supplies. The 19 service contracts were included in the 72 contract actions in which documentation was inadequate to determine whether overpricing existed (DoDIG, 2001, pp. 9–10).

Table 3. Summary of Price Reasonableness Problems
(DoDIG, 2001)

<u>Problems</u>	<u>Number of Occurrences</u>	<u>Data Sufficient To Compute Overpricing</u>
Acceptance of catalog prices without any additional review of price	34	7
Use of prior prices without establishing the reasonableness of the prior prices	42	21
Inadequate competition	15	9
Cost analyses	24	9
Other reasonableness problems	9	6
Total	124	52

The DoDIG (2001) report also referred to the “contributing factors to price analysis problems” (pp. 14–16). According to the report, the DoDIG concluded that various factors contributed to contracting officials’ inadequate documentation and support for price reasonableness determinations and failure to obtain certified cost or pricing data when required from contractors. These factors included the following:

- poor acquisition planning,
- urgent procurements,
- staffing shortages increasing contracting officials’ workloads,
- the need for additional senior leadership oversight, and
- less emphasis on obtaining cost data due to changes in acquisition regulations (pp. 14–18).

In asking why cost or pricing data was not obtained when there was no other basis to establish reasonableness, the DoDIG (2001) report referred to the increased workloads of contracting officials as the main contributing factor. According to a contracting official at the Defense Supply Center Richmond, the



workload was so great that a delay in the award of even one contract could not be tolerated because of the impact that the delay would have on all other pending awards.

Other contributing factors regarding why cost or pricing data was not obtained when there was no other basis to establish price reasonableness were based on changes in acquisition regulations, which placed less emphasis on obtaining cost data for determining price reasonableness. According to the DoDIG (2001) report, contracting officials are less inclined to request, and contractors are more reluctant or unwilling to provide, these data. The DoDIG believes that emphasis should be provided for obtaining cost data in sole-source situations even when the purchase is a commercial item. From the DoDIG (2001) report's perspective, the Truth in Negotiations Act (TINA) of 1962 was enacted to put the government on equal footing with the contractor during contract negotiations. The new acquisition reform procedures for commercial items work well when there is competition, but obtaining cost data is often key in sole-source situations.

The DoDIG (2001) report argued that contractors used their sole-source market position and the revised definition of commercial items as the basis for proposing unjustified high prices. An example in the report is given relative to contract N00383-98-C-019F, with SMR Technologies, Inc. Significantly higher prices than before acquisition reform were paid for drop cloth used for the repair of F-14 Tomcat wing fuselages. Table 4 shows the purchasing history for this item.

Table 4. Price History for Drop Cloth Thread
(DoDIG, 2001)

Contract Number	Quantity (Yards)	Unit Price	Contract Date	Price Reasonableness Determination
N00383-91-D-7012	1,000	\$55.36	5/92	Certified cost or pricing data. Urgency
N00383-96-M-041F	75	95.00	2/96	Cost or pricing data not requested because of small dollar amount.
N00383-96-C-015F	600	800.00	5/96	Urgency Item now considered commercial. Price reasonableness based on Catalog price. Urgency
N00383-98-C-001F	756	800.00	10/97	Contractor refused to provide certified cost or pricing data because Material was commercial. Urgency
N00383-98-C-019F	2,565	650.00	6/98	Price reasonableness based on previous contract price of \$800 that was not justified as reasonable.



The unit price for the drop cloth substantially increased from \$55 to \$800, an increase of 1,454% in five years. The contractor refused to provide cost or pricing data when requested because the item was now being “classified as a [commercial item] in accordance with the new expanded FAR definition of a commercial item” (DoDIG, 2001, p. 17).

As a result of the acquisition reform changes, the DoDIG (2001) report concluded that contractors have used the changes in the definition of commercial items to classify items as commercial and avoid providing cost information. In turn, these changes have limited the information available to contracting officials in determining price reasonableness (DoDIG, 2001, p. 15).

Finally, another contributing factor that contributed to price analysis problems was the lack of senior leadership involvement. According to the DoDIG (2001) report, senior leadership were generally not aware of the poor documentation supporting price reasonableness decisions and that pricing problems were occurring. The DoDIG (2001) report asserted the following:

Senior leadership did not adequately monitor the impact of acquisition personnel reductions, did not determine the effect of acquisition reform initiatives on price trends, and did not establish a system of quality control over contracting official's price reasonableness determinations. (p. 18)

Although the DoDIG report was completed in 2001, the contracting community as a whole has continued to have difficulty applying the required cost and price analysis techniques outlined in the FAR, as viewed through other DoDIG reports since 2001.

In 2006, another noncompetitive commercial item pricing issue was disclosed in DoDIG Report No. D-2006-122. In the report, the DoDIG asserted that the Air Force did not establish an effective means to determine price reasonableness on a \$860 million commercial contract for noncompetitive spare parts used on defense weapon systems. The items were exempted from TINA as “commercial” items. The Air Force then used previous purchases as the basis of price reasonableness. However, the previous prices used in the Air Force's price analysis had been determined not to be fair and reasonable. The DoDIG (2006) concluded that this issue occurred because

guidance on commercial item determinations and commercial item exceptions to cost or pricing data in the United States Code, Federal Acquisition Regulation, and other DoD guidance has become muddled and disordered. (p. 5)

In a report (DoDIG Report No. D-2009-102) released in 2009, the DoDIG reviewed a sample of 15 contracts with a value of about \$2.4 billion to determine



whether the U.S. Special Operations Command (USSOCOM) complied with FAR requirements when determining price reasonableness. The sample was drawn from 734 USSOCOM contracts with a value of \$3.3 billion for FY2003 through FY2007. On four of 15 contracts sampled, USSOCOM contracting officials did not perform or document the price reasonableness determination in accordance with the FAR. In total, the USSOCOM did not adequately document \$721 million in negotiated prices on the four contracts. Of the \$721 million, the USSOCOM did not adequately support \$356 million on one contract for commercial hardware items. On two contracts, the DoDIG was unable to fully evaluate the contracting officers' price reasonableness decisions because essential documentation was not retained as part of the contract file.

Although failure to properly apply and document price reasonableness determination is widespread in the procurement of supplies, according to DoDIG reports, it also occurs in the acquisition of services. As stated previously, incomplete/inaccurate IGCEs, untimely completion of requirements, and limited competition are elements leading to improper or incomplete fair and reasonable price determinations. The 2010 DoDIG report (Report No. D-2010-054) reviewed four service task orders issued by the U.S. Army Communications Electronics Command (CECOM) and Air Force contracting officials. It was found that CECOM and Air Force contracting officials did not obtain competition or ensure fair and reasonable prices when awarding and administering service task orders for the requirement. The DoDIG concluded that these issues occurred based on time limitations during proposal analysis, an inadequate IGCE, inadequate price and technical analysis, and no contractor surveillance.

One DoD office that handled an \$11.2 billion contract did not keep records on pricing negotiations or other procurement information, according to a 2011 DoDIG report (DoDIG Report No. D-2011-066), as of June 2011. Contracting officials at the DoD's Program Executive Office for Simulation, Training, and Instrumentation lacked required documents such as records on pre-negotiations and price negotiation memos, which are essential for accountability and transparency of the acquisition process. According to the DoDIG, there wasn't enough information to confirm whether the DoD paid a reasonable price for the contract (Weigelt, 2011).

The preceding examples from various DoDIG reports demonstrate that completing and documenting cost and price analyses is severely lacking across the DoD. M. F. Jaggard (2005) identified key issues noted in DoDIG audits regarding fair and reasonable price determinations that need to be addressed. Along with inaccurate/unreliable IGCEs, these issues include the following:

- market research reports that were incomplete or fully omitted,



- unverified catalog pricing,
- unjustified prior pricing utilized for comparison,
- prices listed as competitive when no competition was present,
- acceptance of unsupported costs,
- failure to make efforts to promote adequate competition, and
- improper contract file documentation.

Another example of inadequate contract pricing relative to commercial items is discussed in GAO Report 06-838R, dated July 7, 2006. The report cited “adequate pricing” as one of five key area vulnerabilities of the DoD. The report also stated that the DoD sometimes uses commercial item procedures to procure items that are misclassified as commercial items. The misclassification of items as “commercial” can leave the DoD vulnerable to accepting prices that are not the best value for the department.

In addition to the DoDIG and GAO reports that the authors reviewed, the authors also looked at research findings on price-based acquisition (PBA). In 2005, the RAND Corporation reported on the use and potential benefits of price-based acquisition for DoD procurement of major military-unique systems. One key research question was as follows:

Is there documented evidence that prices paid for DoD systems, goods, and services have been reduced through the use of PBA compared with CBA [cost-based acquisition] processes? (DoDIG, 2006, p. 2)

The findings found the answer to the question to be “No.”

Determining Price Reasonableness in Accordance With the Federal Acquisition Regulation

Fair and reasonable price determinations must be completed and documented for any contract action that involves cost or pricing. The FAR in Section 13.106 and Part 15.4, along with the Contract Pricing Reference Guides (Federal Acquisition Institute & Air Force Institute of Technology, 2012; maintained by the Office of the Deputy Director of Defense Procurement and Acquisition Policy for Cost, Pricing, and Finance) outline the most important elements of price reasonableness determinations and advise federal government contracting personnel on how to determine whether a price is fair and reasonable. Topics cover the utilization of personal judgment versus market-based pricing, identifying whether cost or price analysis should be utilized, and performing a method of price analysis when cost or pricing data is not obtained.



FAR 15.4—Contract Pricing

In determining whether price is fair and reasonable, contracting personnel must ensure that they are utilizing the proper analysis tools. Personnel must determine whether cost analysis or price analysis will be used to evaluate bids/proposals. FAR 15.404-1(b)(1) identifies *price analysis* as “the process of examining and evaluating a proposed price to determine if it is reasonable, without breaking down the price and evaluating its separate cost elements and proposed profit.” FAR 15.404-1(c)(1) defines *cost analysis* as “the review and evaluation of any separate cost elements and profit or fee in an offeror’s or contractor’s proposal, as needed to determine a fair and reasonable price or to determine cost realism.” The type of proposal/offer analysis to be utilized is generally based on whether the quote/proposed price meets the threshold of \$700,000 for certified cost or pricing data. If an acquisition exceeds \$700,000 and does not meet one of the exceptions outlined in FAR 15.403-1(b), then certified cost or pricing data is required and the cost analysis method is utilized. When cost or pricing data is not required, then price analysis must be done for negotiated actions. It is recommended that price analysis always be used, but it is not required. Cost analysis may be needed to perform price reasonableness when price analysis alone is not sufficient. If cost analysis is done, cost data is requested from the offeror. There is an order of preference for requesting data other than cost or pricing data from an offeror:

1. no data requested from the offeror if adequate price competition exists,
2. request pricing data from within the government and/or secondary sources such as commercial buyers of the same items,
3. request sales data from the offeror for previously sold same/similar items, and
4. definitely the least preferred, request data other than cost or pricing data from the offeror so that cost analysis can be performed.

FAR Part 12—Acquisition of Commercial Items

One of the exceptions for certified cost or pricing data is the purchase of a commercial item, as defined in FAR 2.101. If an item is commercial, FAR Part 12, Acquisition of Commercial Items, prescribes policies and procedures unique to the acquisition of commercial items, but it is not a “stand alone” part. FAR Part 12 policies must be used in conjunction with the policies and procedures for solicitation, evaluation, and award of contracts and orders set forth in either FAR Part 13, Simplified Acquisition Procedures; FAR Part 14, Sealed Bidding; or FAR Part 15, Contracting by Negotiation; as appropriate for the particular acquisition. In particular to pricing, FAR 12.209 states that contracting officers must establish price



reasonableness in accordance with FAR 13.106-3, FAR 14.408-2, or FAR 15.4, as applicable.

FAR 13.5—Test Program for Certain Commercial Items

Then comes FAR 13.5. FAR 13.5 authorizes a test program for certain commercial items that allows issuance of solicitations under simplified acquisition procedures (SAPs) when procuring supplies and services in amounts greater than the simplified acquisition threshold but not exceeding \$6.5 million (\$12 million for acquisitions as described in FAR 13.500(e)), including options. Currently, the authority to issue solicitations under this authority expires on January 1, 2015. The test program allows FAR Part 13 SAPs to be used if the contracting officer reasonably expects—on the basis of the nature of the supplies or services sought and on market research—that offers will include only commercial items.

Under this test program, contracting officers may use any simplified acquisition procedure in FAR Part 13, subject to the specific dollar limitation applicable to that particular procedure. The test program's purpose is to vest contracting officers with additional procedural discretion and flexibility so that commercial item acquisitions in this dollar range may be solicited, offered, evaluated, and awarded in a simplified manner that maximizes efficiency and economy and minimizes the burden and administrative costs for both the government and industry. For the period of this test, contracting activities must employ the simplified procedures authorized by the test to the maximum extent practicable.

The determination used for the pricing of commercial items depends on which of the authorized procedures the analyst chooses to apply to the acquisition. For example, if the commercial item requirement is \$6.5 million or less (or \$12 million for contingency purchases), then the analyst can use FAR Part 13, Simplified Acquisition Procedures, which normally are applicable only to requirements under the Simplified Acquisition Threshold (SAT; currently \$150,000). By definition, this means that the number of sources solicited to compete may be limited. Under \$150,000, competition could be limited to contacting three sources or fewer. Synopsis of solicitations and response times can be significantly reduced per FAR Part 5.

So, it is most likely that an analyst will use FAR 13.106-3(a)(2), Simplified Acquisition Procedures, in determining price reasonableness for noncommercial purchases under the SAT of \$150,000 but over micro-purchases and commercial purchases up to \$6.5 million (or \$12 million for contingency purchases). This is because the current test states that contracting activities must employ the SAPs authorized by the test to the maximum extent practicable, and, for another unwritten reason, it is far easier and doesn't require much in comparison to FAR 15.4.



Part 13—Simplified Acquisition Procedures

In determining price reasonableness under FAR 13.106-3(a)(2), award and documentation procedures for SAPs, the analyst uses at least one of the following methods:

- Base price reasonableness on competitive quotations or offers, whenever possible.
- However, if only one response is received, price reasonableness can be based on market research.
- Compare the proposed price with prices found reasonable on previous purchases.
- Compare current price lists, catalogs, or advertisements.
- Compare similar items in a related industry.
- Utilize the contracting officer's personal knowledge of the item being purchased.
- Compare independent government estimate.
- Use any other reasonable basis.

It is the analyst's responsibility to determine which of the preceding methods is most appropriate for the acquisition and to ensure that a statement referring to the price reasonableness determination is placed in the purchase order or contract file. One must note that FAR 13.106-3(a)(2) makes no mention of any required documentation to validate the method used, as does FAR 15.4.

Certification Standards for Contracting Personnel Series: “DAU Courses Relating to Contract Pricing”

Table 5 includes a summary of pricing courses and experience currently required for Defense Acquisition Workforce Improvement Act (DAWIA) certifications at each level.

Table 5. DAWIA Certification Standards

DAWIA Level 1	DAWIA Level 2	DAWIA Level 3
Required: CON 170—Fundamentals of Cost and Price Analysis CLC 058—Introduction to Contract Pricing	Required: CON 270—Intermediate Cost and Price Analysis	Optional: CON 235—Advanced Contract Pricing



1 Year of Experience	2 Years of Experience	4 Years of Experience
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Improving the Price Reasonableness Determinations: “Suggestions for the Improvement of Commercial Item Pricing Within and Outside of the Federal Government”

To become better buyers, analysts need help. “What the workforce told us was is that, we need better skills; we need better tools; we need better training,” stated Shay Assad (2011), director of defense pricing. There are ample suggestions and recommendations published on what can improve price reasonableness determinations. The authors have their own ideas about how to improve on determining price reasonableness, as detailed in our recommendations in the fifth section of this report. Listed here are some ideas and efforts from the literature.

Department of Defense Contracting Workforce Competency Assessment Final Report Strategies for Improvement

One of the biggest factors leading to poor, fair, and reasonable price determinations is the knowledge gap of the workforce in cost and pricing analysis per the *Department of Defense Contracting Workforce Competency Assessment Final Report* (Thomas, Brooks, Uzoukwu-Omoike, & Pittsonberger, 2010). The report indicated that senior leaders view cost and price analysis techniques as a fundamental skill for the workforce. The report also indicated that senior leaders believe the workforce is severely lacking in the following skill areas: advanced cost and/or price analysis, preparation and negotiation, bid evaluation, and negotiating forward pricing rate agreements. In order to close the knowledge gap for contracting personnel, the leaders have identified the following strategies for improvement:

- Review and enhance the existing training, which would include basic cost/price analysis courses for all 1102s and advanced pricing for senior contract specialists and price analysts.
- Improve training and policy regarding price reasonableness and negotiation processes.
- Establish career ladders for cost estimating and pricing specialists.
- Establish cost/pricing centers of excellence.¹

¹ In an interview with *Federal Computer Week* (FCW) in April 2011, Shay Assad, director of defense pricing, said that the DoD was developing a pricing center of excellence in the Defense Contract Management Agency.



Market Research Report Guide for Improving the Tradecraft in Service Acquisitions

Among DoDIG findings, the market research reports reviewed were nonexistent or incomplete. Market research reports are an important tool in understanding contract pricing. Market research assists in the development of IGCEs and provides contracting personnel with possible comparison items for use in determining fair and reasonable price. In an effort to improve market research reports, the DoD has created the *Market Research Report Guide for Improving the Tradecraft in Service Acquisitions* (2012a). This guide provided a template to utilize in the completion of the market research report. The guide also identified instructions for preparation, considerations to be aware of, and techniques that can be utilized in creating the market research report. Overall, the guide is a useful tool that all contracting personnel can utilize to improve their skills.

Findings and Recommendations for Pricing When No or Limited Competition Exists by the Acquisition Advisory Panel in Their January 2007 Report to the Office of Federal Procurement Policy and the United States Congress

Commercial buyers rely on competition for the pricing of commercial goods and services. They achieve competition by carefully defining their requirements in a manner that facilitates competitive offers and fixed-price bids. In the absence of competition, commercial buyers rely on market research, benchmarking, and, in some cases, cost-related data provided by the seller to determine a price range for the commercial goods and services at hand.

The Acquisition Advisory Panel (2007) made the following recommendations:

1. For commercial items, provide for a more commercial-like approach to determine price reasonableness when no or limited competition exists.
2. Revise the current FAR provisions that permit the government to require “other than cost or pricing data” to conform to commercial practices by emphasizing that price reasonableness should be determined by competition, market research, and analysis of prices for similar commercial sales.
3. Move the provisions for determining price reasonableness for commercial items to FAR Part 12 and de-link it from FAR Part 15.
4. Establish in FAR Part 12 a clear preference for market-based price analysis but, where the contracting officer cannot make a determination on that basis (e.g., when no offers are solicited, or the items or services are not sold in substantial quantities in the commercial marketplace), allow the



contracting officer to request additional limited information in the following order:

- (i.) prices paid for the same or similar commercial items by government and commercial customers during a relevant period; or, if necessary,
- (ii.) available information regarding price or limited cost related information to support the price offered such as wages, subcontracts, or material costs. The contracting officer shall not require detailed cost breakdowns or profit, and shall rely on price analysis. (p. 37)

Price Reasonableness Determinations Must Be Based on Market-Based Elements

J. J. Battle, Jr. (2008) emphasized in his article, *Fair and Reasonable Price Justification: Judgment or Market-Based?*, that it is important to understand that determining fair and reasonable pricing is not just a judgment call without the facts about the marketplace to be made by contracting personnel. He recommended that price reasonableness determinations must be based on market-based elements, such as supply and demand, rather than on simple, subjective, unjustified judgment calls. Battle (2008) indicated that making use of market-based elements is important in all contracting actions, including sole-source purchases.

FAR 13.106-3(a)(1) and 15.305-(a)(1) indicate that the comparison of prices received in response to solicitation is the preferred method for determining fair and reasonable price. Although comparison with competitor pricing is the preferred method of determining price reasonableness, this method is not always available because competition might not exist. In cases where only one bid/quote is received in response to a solicitation, it is not possible to utilize the method of comparison of quotes received in response to the solicitation for evaluating price reasonableness. Battle (2008) recommended that in such situations, discussions occur between the government and the bidder.

Similarly, the authors also believe that analysts should attempt to know something about the marketplace, possibly to include a conversation with the bidder before using another price analysis method such as previous prices to justify the price. Opening discussions will allow for the government to determine what market factors the bidders took into consideration when developing their proposal. Knowledge of the market will allow the analyst to make improved price comparisons and price reasonableness determinations.

Finally, like the DoDIG, Battle (2008) proposed that “all non-sensitive government contracts be uploaded to the internet” (p. 67). A database such as this would be useful for the entire contracting workforce, regardless of skill level. This



database would provide thousands of previous contract actions for review and use for price comparison purposes. The database could also be utilized to develop the market research report and promote further competition.

Defense Officials Plan to Help Contracting Officers Better Understand the Aspects of Pricing

According to a 2011 article in *FCW*, senior defense procurement officials are starting to emphasize the collection of pricing data from purchases (Weigelt, 2011). The officials want to centralize the data for everyone to be able to use and compare prices. Also, the collection will provide more transparency as to whether the DoD is paying fairly and getting all it can from the money it spends. The detailed records on prices are a key to carrying out the Better Buying Power initiatives referred to in the *FCW* article, which was developed under Ashton Carter, the USD(AT&L). When it comes to spending, the Better Buying Power initiatives seek to make the DoD more efficient and its employees smarter at the negotiating table.

Defense officials have a plan to help contracting officers better understand the aspects of pricing. Currently, they are building a central repository of pricing data with the Defense Contract Management Agency as the host. A database already exists for labor rates.

The continued effort is focusing on inserting significant pricing details into the central database of information, such as a listing of negotiated price memos on how price was settled. If this pricing data collection works, the DoD contracting personnel will have access to information on what's been paid in the past for a product or service. Officers will save time and effort in determining whether a price is reasonable. "What sometimes took months to determine will be done in minutes," Assad (2011) said. "Simply come online and the data will be there."

During a September 2013 Federal News Radio "In Depth Show" interview with Richard Ginman, director of Defense Procurement and Acquisition Policy (DPAP), Mr. Ginman discussed the importance of competition and that the contracting personnel today need to focus on competition in order to achieve better prices. He has introduced the term *cost culture*, which refers to a change at the DoD. Pentagon leaders say that cost culture will result in better procurements and better prices for the agency. Mr. Ginman went on say that the analysts need to get better deals.

Updated OSD(AT&L) *Commercial Item Handbook* (CIH) Version 2.0: Emphasis on the Pricing of Commercial Items

An updated OSD(AT&L) *Commercial Item Handbook* (CIH) Version 2.0 was released in 2012, which superseded Version 1.0 from 2001. The CIH is designed to assist contracting officers with the effective and efficient acquisition of commercial



items. This newer version adds significant guidelines and emphasis on the pricing of commercial items.

According to the OSD(AT&L), the *Commercial Item Handbook* is used

to assist acquisition personnel develop sound acquisition strategies for procuring commercial items. The Handbook focuses on how market research and cross-competency teaming can increase the Government's cost-effective use of commercial items to meet war fighter needs. The Handbook offers suggestions on questions to ask, and it points to additional sources of information, sources of training, and available tools. The Handbook is designed to be a practical reference tool for use in commercial item acquisitions.

Chapter 4, Pricing Commercial Items (pp. 37–48), as well as the following appendices are of particular interest to pricing professionals:

Appendix D: Sample Market Research Report

Appendix E: Market Research Questions—Historical Acquisition Information

Appendix F: Market Research Resources

Appendix G: Price Analysis Techniques

Appendix H: Pricing-Support Resources

Revisions to the FAR Proposed to Improve Pricing Issues

There have been FAR changes because of the DoDIG reports since 2001. In 2010, FAR Case 2005-036 amended FAR 15.4 and expanded government contracting officers' ability to obtain cost- or price-related data for all contracts, including currently exempted commercial item contracts. The focus of these changes is to increase government leverage in the purchase of sole-source commercial items. The new advantage allows buyers to require certified cost or pricing data when the offeror refuses to provide sales data and/or information that would prove that their offered item is indeed commercial and that the dollar amount exceeds the threshold for certified cost or pricing data.

FAR Case 2005-036 also amended the FAR by redefining "cost or pricing data," adding a definition of "certified cost or pricing data" and changing the term "information other than cost or pricing data" to "data other than certified cost or pricing data." The rule was required to eliminate confusion and misunderstanding, especially regarding the authority of the contracting officer to request data other than certified cost or pricing data when there is no other means to determine that proposed prices are fair and reasonable. Most significantly, the rule clarifies that data other than certified cost or pricing data may include the identical types of data as certified cost or pricing data but without the certification.



Old guidance for requesting noncertified data included an implicit prohibition for asking for cost or pricing data when it was not required under TINA.. The old language mandated an order of preference in determining the type of data to be acquired. The new language guides the analyst to “generally” follow the recommended order of preference in determining the type of data to be required, but strict adherence to the order is no longer mandated. New language was added to give the analyst more latitude in identifying the amount of information needed to determine a fair and reasonable price. Following is the text for the amendment behind FAR 15.4 changes:

Amend section 15.402 by revising the introductory text and paragraph (a) to read as follows:

15.402 Pricing policy.

Contracting officers shall—

(a) Purchase supplies and services from responsible sources at fair and reasonable prices. In establishing the reasonableness of the offered prices, the contracting officer—

(1) Shall obtain certified cost or pricing data when required by 15.403-4, along with data other than certified cost or pricing data as necessary to establish a fair and reasonable price; or

(2) When certified cost or pricing data is not required by 15.403-4, obtain data other than certified cost or pricing data as necessary to establish a fair and reasonable price, generally using the following order of preference in determining the type of data required:

(i) No additional data from the offeror, if the price is based on adequate price competition, except as provided by 15.403-3(b).

(ii) Data other than certified cost or pricing data such as—

(A) Data related to prices (e.g., established catalog or market prices, sales to non-governmental and governmental entities), relying first on data available within the Government; second, on data obtained from sources other than the offeror; and, if necessary, on data obtained from the offeror. When obtaining data from the offeror is necessary, unless an exception under 15.403-1(b)(1) or (2) applies, such data submitted by the offeror shall include, at a minimum, appropriate data on the prices at which the same or similar items have been sold previously, adequate for evaluating the reasonableness of the price.



(B) Cost data to the extent necessary for the contracting officer to determine a fair and reasonable price.

- (3) Obtain the type and quantity of data necessary to establish a fair and reasonable price, but not more data than is necessary. Requesting unnecessary data can lead to increased proposal preparation costs, generally extend acquisition lead time, and consume additional contractor and Government resources. Use techniques such as, but not limited to, price analysis, cost analysis, and/or cost realism analysis to establish a fair and reasonable price. If a fair and reasonable price cannot be established by the contracting officer from the analyses of the data obtained or submitted to date, the contracting officer shall require the submission of additional data sufficient for the contracting officer to support the determination of the fair and reasonable price.

From the authors' experience, changes with just wording, like the previously described change, seldom filters down to individuals who are required to follow it. More attention should be given to this change. History-wise, before the acquisition reforms, some type of cost data was always requested and analysts performed a cost analysis to determine price reasonableness. When commercial items were identified in the FAR and further exempted from TINA, the procurement leaders at that time feared that analysts would not change their ways and would continue to ask for cost data. To make this cultural change happen, the word *prohibition* was entered into the FAR to force analysts to conduct price analysis and not perform cost analysis. That was the '90s. Meanwhile, since that time, it has become apparent that there are many cases where the analyst could use the offeror's cost data to assist in determining price reasonableness because there is little data to support price analysis. As a result, the authors believe that is why sloppy documentation is so apparent in price reasonableness memos. Because of the prohibition, most, if not all, managers would not ask for this data under any circumstances. In reviewing the 119 files in this research, not one file included any cost data requested. The lack of this kind of data in the files backs up the authors' earlier statement that most analysts are not aware of their new freedoms to ask the offeror for cost data when price analysis can't reasonably do the job of determining the price as fair and reasonable. The authors appreciate what our leaders were trying to accomplish in the late '90s; however, experience and the authors believe that the overpricing has to open the door to changes like the new wording in FAR 15.4. Analysts should more seriously consider asking for offeror data per Procedures, Guidance, and Information (PGI) 215.403-1(c) (3) (A) (3), which states,

The fact that an item has been determined to be a commercial item does not, in and of itself, prohibit the contracting officer from requiring data other than certified cost or pricing data. This includes data related



to prices and cost data that would otherwise be defined as certified cost or pricing data if certified. Obtaining sufficient data from the offeror is particularly critical in situations where an item is determined to be a commercial item in accordance with FAR 2.101 and the contract is being awarded on a sole source basis.

In some cases, commercial sales are not available and there is no other market data for determining fair and reasonable prices. This is especially true when buying supplies or services that have been determined to be commercial but have only been “offered for sale” or purchased on a sole-source basis with no prior commercial sales upon which to rely.

Additional changes includes changes to modifications funded by the DoD, the National Aeronautics and Space Administration (NASA), or the Coast Guard. The amendment states that

modifications of a commercial item are not exempt from the requirement for submission of certified cost or pricing data on the basis of the exemption provided for at 15.403-1(c)(3) if the total price of all such modifications under a particular contract action exceeds the greater of the threshold for obtaining certified cost or pricing data in 15.403-4 or 5 percent of the total price of the contract at the time of contract award.

DoD Better Buying Power Initiatives: “Promoting More Real Competition As a Cure to Pricing Effectiveness”

Under its Better Buying Power initiatives, the DoD is promoting more real competition as a cure to pricing ineffectiveness. In regard to noncompetitive procurements, the DoD clarified policy on price competition in a DPAP memo dated November 24, 2010. The DoD policy requires contracting officers to conduct negotiations with all single-bid offerors and that the basis of that negotiation shall be cost or price analysis, as the case may be. The basis for negotiations shall be either certified cost or pricing data or data other than certified cost or pricing data, as appropriate. Failing to perform cost analysis and/or negotiations after receiving a single response to competitive solicitations has become a “common practice,” as perceived by DPAP.

Research Approach (Description of Data and Methodology)

For this research, the authors considered two types of data: data from contract files and data from survey answers. Following, the authors describe



1. the contract file checklists created for contract file review and the methods used to identify which contract files would be selected for review, and
2. the contracting personnel survey's design and its goal.

The contract file checklists and contracting personnel survey questionnaires are provided in Appendix A for reference.

File Review Checklists

We created two checklists to be utilized in the contract file review: one checklist for acquisitions that utilized SAPs, and one checklist for acquisitions above the SAT of \$150,000 that used FAR Part 15 pricing procedures and/or a noncommercial purchase. Each checklist contained an item to determine the commerciality of the requirement, the type of acquisition (e.g., supply, service, or construction), and what procedures were used/documented in the file in regard to price reasonableness. Both contract file review checklists can be viewed in Appendix A.

Contract File Selection

The authors reviewed three years of contract files from four DoD activities in the data collection process. Each file was randomly selected utilizing Microsoft Excel's random number function. All contract file actions from the previous three years were listed in an Excel spreadsheet. The files were then assigned a random number generated by Excel. The authors then put the files in ascending order based on the randomly assigned number. Utilizing the checklists, the authors reviewed the first 30 files that had price reasonableness requirements. Note that some contract actions, like administrative and funding modifications, do not require a price reasonableness determination.

The authors then numerically scored the results of this data file review (namely, 1 for yes, 2 for no, and 3 for N/A) and recorded the scores in a spreadsheet format for each command based on the prescribed file review questionnaire. The questionnaire was designed to verify (1) whether the end user provided pre-solicitation documentation (IGCE and market research), (2) whether the documentation provided could be substantiated, and (3) what procedures and method(s) were used by the contracting officer, contract specialist, or price analyst to determine fair and reasonable pricing. The authors compiled the data into one spreadsheet relaying data for a total of 119 contract actions in the last two years.



Survey Design

We broke the Price Reasonableness Survey down into four distinct parts: (1) demographic information, (2) acquisition information, (3) pricing information, and (4) supervisory information. The questions created in the demographic portion of the survey were developed in an effort to identify the participants' skill level and knowledge base. This information assisted in determining how contracting personnel with different levels of experience viewed their knowledge and expertise in cost and price analysis. The authors prepared the acquisition information section of the survey in an effort to determine on what types of acquisitions the contracting personnel were working on a daily basis. The authors designed pricing information to determine what methods of price analysis the contracting personnel utilized most often and whether the personnel had received appropriate training in the price analysis techniques. Finally, the authors prepared the supervisory information section to determine how senior contracting personnel viewed their subordinates' price analysis abilities and to determine whether they were aware of any shortcomings in contracting personnel's knowledge levels.

Survey Subjects

The survey was distributed to specific organizations within the DoD. With directors' approval, the survey URL was e-mailed through distribution lists targeting contracting personnel in the 1102 job series. The surveys were completed on a voluntary basis, and no personally identifiable information was gathered.

Survey Limitations

The survey presented to contracting personnel contained two inherent shortfalls. First, the survey was voluntary; Contracting personnel were not required to complete it. As a result, the authors were unable to ensure diversity in the skill levels of surveyed personnel. Second, the validity of the survey depended on personnel's answering the survey honestly, and fully understanding the questions that were presented. False information and the inability to verify answers might have led to inaccuracies in the data collected. The authors review the survey data collected in the chapter of results and data analysis.

Discussion on the Limitations of the Contract Files Data and Survey

The authors have identified that the data collected through their contract file review is limited because only a handful of DoD activities granted approval to review contract files. In addition, most of the contract file data collected was through access to electronic files. A possibility exists that the contract files reviewed may not have been complete due to recent changes from hardcopy contract files to electronic



contract files. In transferring files from hardcopy to electronic, price reasonableness determination documents may have been lost.

Proficiency in completing price reasonableness determinations and documenting the contracting file properly is developed with experience and completion of required contract pricing courses provided through the DAWIA certification process. There is a wide range of skill levels within the contracting community. The survey respondents' skill levels also varied. In some cases, the respondents didn't have the required training or experience to properly complete price reasonableness determinations. Therefore, the survey results were strictly dependent on the skill level of each survey respondent within the DoD contracting community. Due to the online survey method and timing of the survey release, participation in the survey was limited. The survey was distributed to select DoD contracting installations on August 13, 2013, and remained open for responses for a two-week period.

Overall Findings of the Contract File Reviews and the Contracting Personnel Surveys

Contract Files Findings

The authors created the following tables and charts similar to the charts provided in the DoDIG report *Contracting Officer Determination of Price Reasonableness When Cost or Pricing Data Are Not Obtained*, Report No. D-2001-129, dated May 30, 2001, for better comparison between the data results to the 2001 report. While the DoDIG report addressed similar price reasonableness concerns, the charts and data were from different dollar thresholds and were taken from all services in the 1998 and 1999 fiscal years. Most of the contract actions utilized for review in this research report were priced under the SAT of \$150,000, identified as commercial items, involved the use of SAPs, and were taken from the 2011, 2012, and 2013 fiscal years. Note: The dollar thresholds have changed since the 2001 DoDIG report. The threshold for SAT for the files reviewed was \$150,000 versus \$100,000 in 2001. The threshold for certified cost or pricing data was \$500,000 versus \$700,000 for the files reviewed.

Most of the 119 contract files reviewed were for commercial supplies or services (six were noncommercial). Commercially available supplies accounted for 72 of the contract files reviewed, commercially available services accounted for 41 of the contract files reviewed, while noncommercially available services accounted for six of the contracts reviewed. A majority of contract actions (103 of the 119, of which 67 are supplies and 36 are services) reviewed for this report were low-dollar actions (under the SAT of \$150,000) for commercially available supplies, as demonstrated in



Figure 1. The figure illustrates the breakout of supplies versus services (namely, Questions 5 and 6 on the questionnaire).

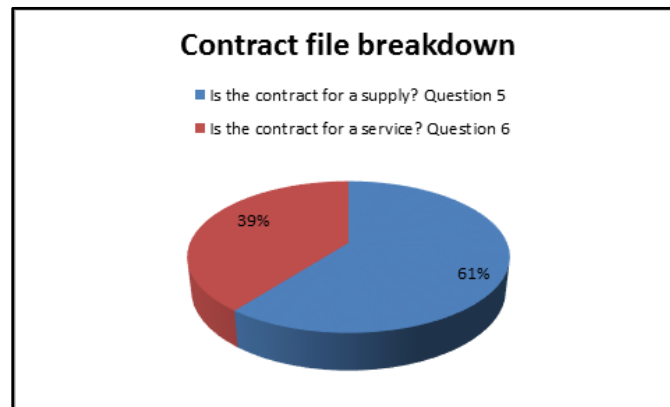


Figure 1. Breakout of Supplies Versus Services (Questions 5 and 6 on the Questionnaire)

Table 6 illustrates the breakdown of commercial and noncommercial actions and depicts the total dollar amounts involved with the contract actions reviewed. The totals show 113 commercial contract actions totaling over \$8 million versus 6 noncommercial actions totaling over \$44 million. Essentially, the 113 commercial actions of the 119 reviewed represented an 18.6% sum of dollars for all contract actions. However, the same 113 represented 95% of the number of actions reviewed.

Table 6. Breakdown of Commercial and Noncommercial Actions

Commercial vs. Noncommercial (4 DoD sites visited)				
	Commercial		Noncommercial	
	Actions	Dollar Amount	Actions	Dollar Amount
Supplies	72	\$3,605,599.23	0	\$0
Services	41	\$4,640,024.19	6	\$44,239,722.00
Total	113	\$8,245,623.42	6	\$44,239,722.00

Table 7 provides the breakdown to the question “Is there a memorandum for price reasonableness or other document justifying the reasonableness of price?” on the file checklist. The table reveals that 18 files representing 15% of the total contract actions reviewed did not have any documentation regarding price

reasonableness. Since these files were electronic, one reason may be that they were lost, misfiled, or poorly named. However, the fact that no documentation was found relative to price reasonableness could also mean that none was done.

Table 7. Breakdown to the Question “Is There a Memorandum for Price Reasonableness or Other Document Justifying the Reasonableness of Price?”

	Total number	Memo not included (cost < \$150K)	Memo not included (cost > \$150K)
Commercial	113	10	7
Noncommercial	6	0	1

Note. Disclaimer: Due to the time constraints, the authors did not have the ability to review and calculate the overpricing amounts on these contracts similar to the 2001 DoDIG report.

A number of contract files reviewed were unable to demonstrate that prices paid were reasonable due to the following inadequate price analysis methods, as depicted in Table 8, which presents a summary of inadequate price analysis methods on the file checklist. From this data, the authors determined that the personnel involved in performing these contract actions did not include sufficient documentation to support the price analysis method used. In Table 8, the authors break down the number of contract actions under and over \$150,000 and show how many out of these files were inadequately processed.



**Table 8. Summary of Price Analysis Methods Improperly Justified
(Including Contract Actions That Used Either Simplified Acquisition or
Negotiation Procedures)**

	Under \$150,000	Over \$150,000
Inadequate price competition	0 of 31	0 of 3
Incomplete statements based on references to market research	1 of 14	1 of 1
Acceptance of prior prices without establishing their reasonableness	6 of 49	1 of 1
Incomplete references to current price list, catalog, or advertisement	0 of 15	0 of 0
Incomplete comparison with prices of similar items	6 of 26	0 of 0
Incomplete statement of price reasonableness by contract officer	3 of 4	0 of 0
Incomplete comparison with IGCE or use of unreliable IGCEs	24 of 27	4 of 5
Incomplete statement for price reasonableness for any other reasonable basis	0 of 4	0 of 1
Totals of inadequate documentation	40	6

Table 9 provides answers to the “What was the justification for price reasonableness?” question on the file checklist. The table addresses the type of FAR 13.106 or FAR 15.4 justifications used in determining price reasonableness for all actions. The table also provides some insight into the type of justifications most used for the acquisition of a supply versus a service.



Table 9. Answers to the Question “What Was the Justification for Price Reasonableness?”

What was the justification for price reasonableness?		
	Supply	Service
Competitive Quotes	26	8
Market Research	11	4
Comparison With Prices Found Reasonable on Previous Purchase	31	18
Current Price List, Catalog, or Advertisement	8	6
Comparison With Similar Items	17	9
Contracting Officer’s Personal Knowledge	4	0
Comparison to an Independent Government Estimate	13	17
Any Other Reasonable Basis?	4	1
Cost Analysis of Offeror’s Data	0	0

Figures 2 and 3 display the same data from Table 9. The two bar charts in these figures show the same data but use different bar chart styles as another way of examining the data.



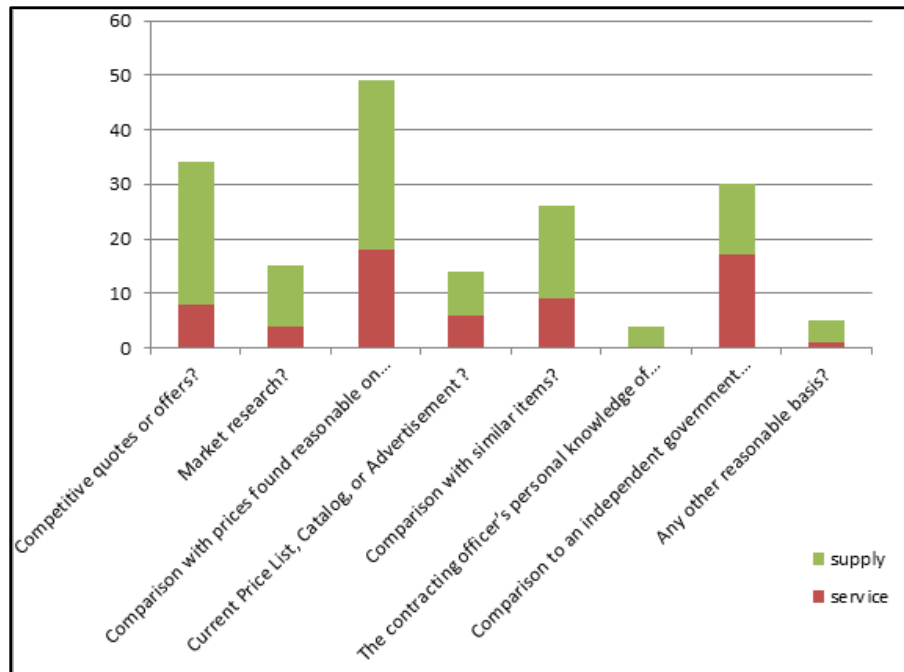


Figure 2. Breakdown of the Number of Contract Files by Method Used for Determining Price Reasonableness

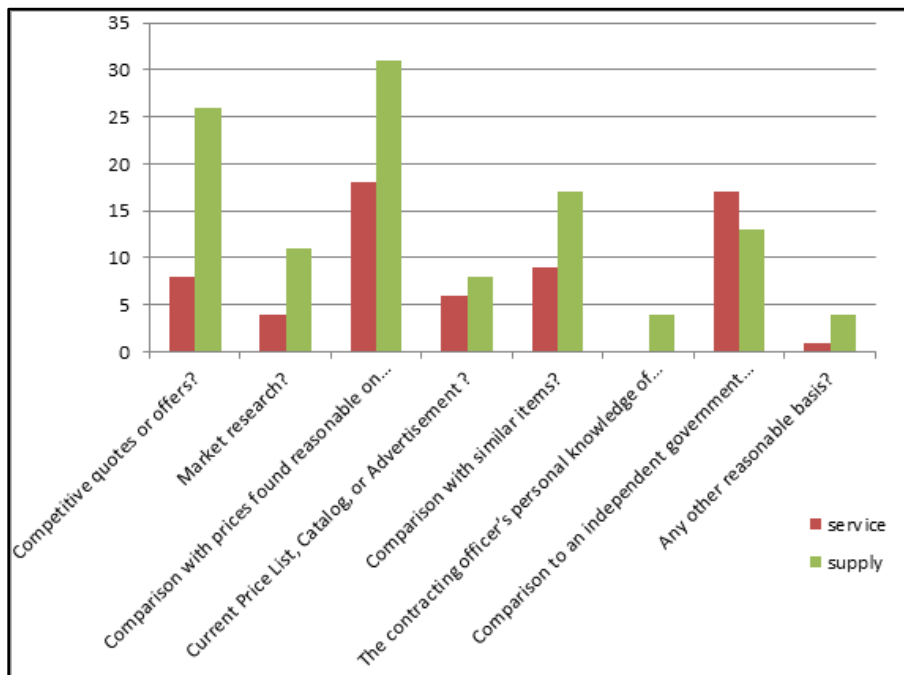


Figure 3. Breakdown of the Number of Contract Files by Answers to Method Used for Determining Price Reasonableness

Note that the data represented in Table 9 and further displayed in Figures 2, 3, 4, and 5 are representative of how the pricing memos justified the offered price.



This does not mean that the price analysis method described in the memo was adequate. However, that same data does give one a picture of what methods are used more in the acquisition of a supply versus a service. Out of 119 files sampled, there were three interesting observations. First, not one file included a request to the offeror for sales or cost data of any kind. Second, there was no cost analysis documented. Third, only one file identified the use of a quantitative technique called “indexing.” The file referred to price escalation and how it affected the previous price when compared to the current price. However, there was no information as to what index was used to calculate the escalation.

Figures 4 and 5 display the same data from Table 9 but in the form of two different pie charts representing services versus supplies as another way of examining the data.

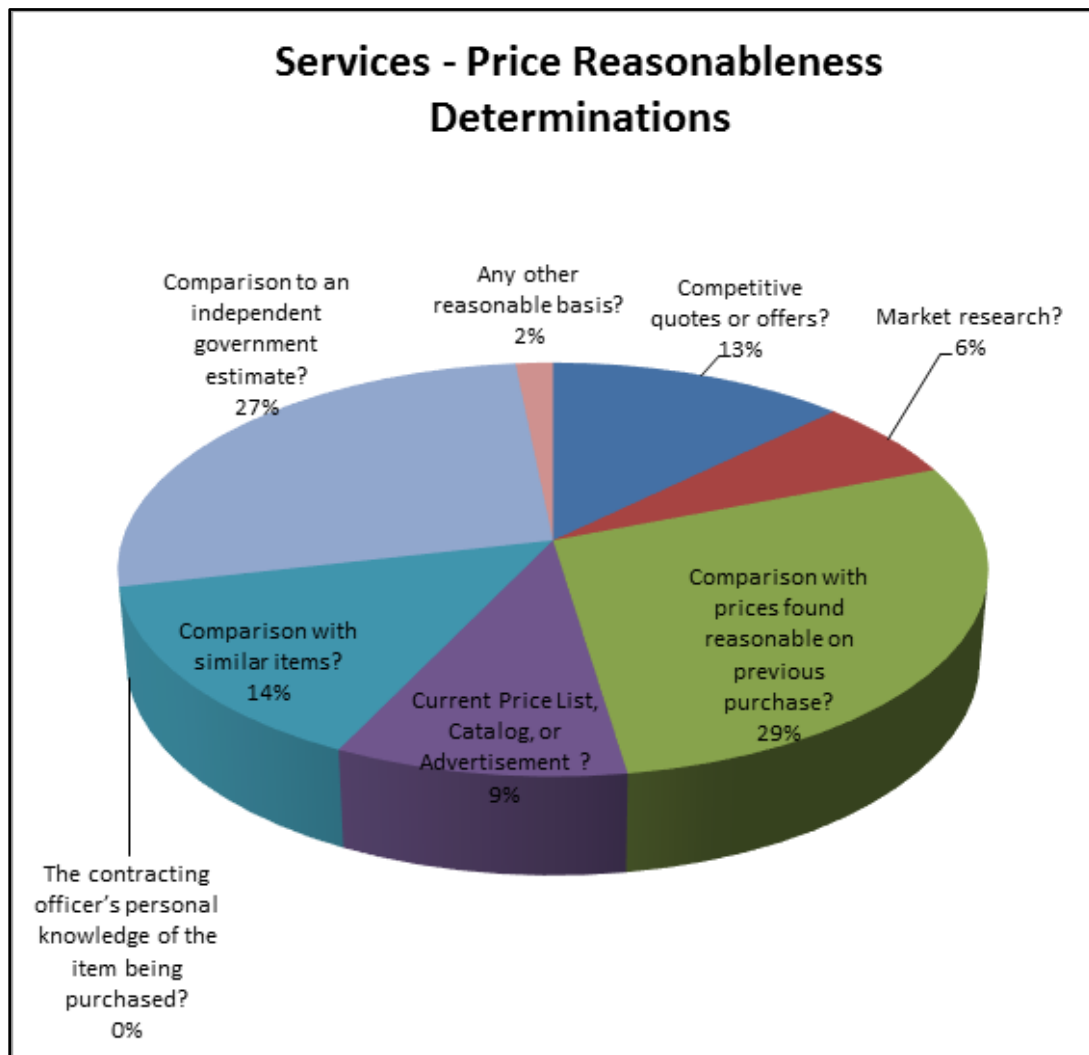


Figure 4. Price Reasonableness Determinations for Services

Note. Each category in the figure is a question on the checklist.

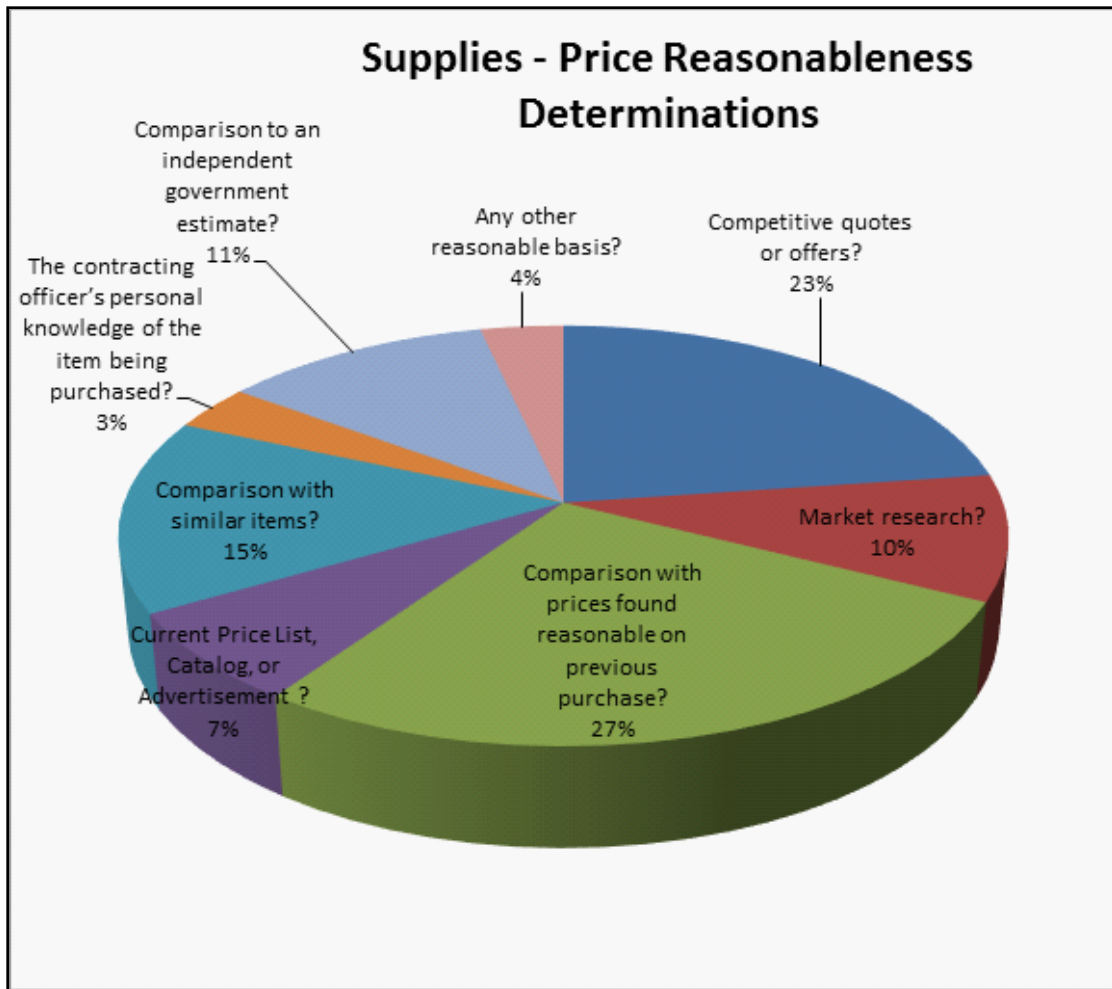


Figure 5. Price Reasonableness Determinations for Supplies

Note. Each category in the figure is a question on the checklist.

The Contracting Personnel Survey Findings

In addition to conducting a file review, the authors issued a survey to select DoD installation contracting personnel. The intended recipients of the personnel survey were individuals responsible for conducting price analysis, including contracting officers, contract specialists, contract administrators, and price analysts. For the survey, 36 of the 46 respondents consented to the use of data provided for the purposes of this report, and thus the authors used only the 36 responses. Of the 36 consenting respondents, 94% were DoD civilians, and 6% were active duty. Figure 6 provides a breakdown of the respondents' years of experience; as shown, the majority of personnel surveyed had greater than five years of experience.

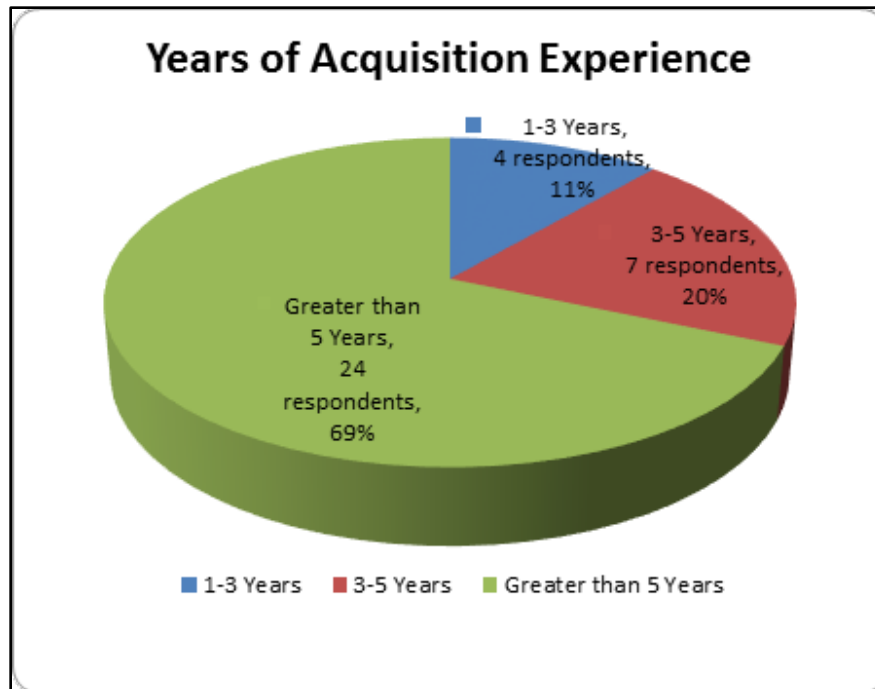


Figure 6. Breakdown of Years of Acquisition Experience

Figure 7 shows the DAWIA certification level of the personnel surveyed, the majority of which were Level 2 certified or higher. Only one respondent was at Level 1.

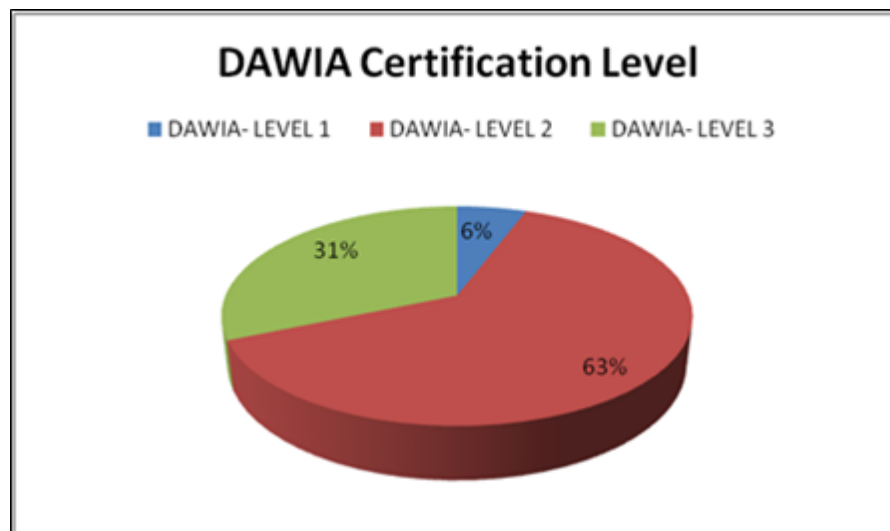


Figure 7. Defense Acquisition Workforce Improvement Act Certification Level

The survey had individuals indicate which of the following pricing-specific DAU training courses they had completed:

- CON 104—Principles of Contract Pricing
- CON 170—Fundamentals of Cost and Price Analysis
- CON 217—Cost Analysis and Negotiation Techniques
- CON 270—Intermediate Cost and Price Analysis

Table 10 presents a summary of pricing courses currently required for DAWIA certifications at each level.

Table 10. Certification Standards for Contracting Series, Courses Related to Contract Pricing

Certification Standards for Contracting Series, Courses Relating to Price		
DAWIA Level 1	DAWIA Level 2	DAWIA Level 3
Required: CON 170—Fundamentals of Cost and Price Analysis CLC 058—Introduction to Contract Pricing	Required: CON 270—Intermediate Cost and Price Analysis	Optional: CON 235—Advanced Contract Pricing
1 Year of Experience	2 Years of Experience	4 Years of Experience

Out of the 36 respondents, seven had taken all four courses. The seven individuals who had completed all pricing courses listed previously also had greater than five years' experience. Additionally, nine of the respondents with greater than five years of experience had taken one or fewer of the pricing courses. Of the respondents with five or more years' experience, who had completed one or fewer of the courses listed previously, four were Level 3 DAWIA-certified and five were Level 2 DAWIA-certified.

The authors now present the data on the DAU courses that the subjects attended, in two different ways: first by levels and then combined together. Because some people took more than one course, the authors present multiple tables to describe that information. The courses surveyed were CON 104: Principles of Contract Pricing; CON 217: Cost Analysis and Negotiation Techniques; CON 170: Fundamentals of Cost and Price Analysis; and CON 270: Intermediate Cost and Price Analysis. For the Level 1 DAWIA certification level, there was only one person who took the survey, and he took only CON 170. The breakdown in Table 11 is for the classes at Level 2 DAWIA.



Table 11. Breakdown for the Classes at Level 2 DAWIA

	CON 104	CON 217	CON 170	CON 270
Number of People Taking These Classes (Highlighted Sections Combined)				
	2	4	0	0
	6	6		
		6	6	
			11	11
	5		5	
		7		7
	5			5
	5	5	5	
		6	6	6
	5		5	5
	5	5		5
	5	5	5	5
Total Number of People Taking This Class	8	12	12	12

In Table 11 (and Table 12, respectively), the highlighted sections show how many people took both (or three or four) classes. For example, the number 7 that is in column 3, row 8 (which matches the value of 7 in column 5, row 8) shows that 7 people took the two classes, namely, CON 217 and CON 270. Figure 8 displays the same data in a different format, for a better grasp of the data.



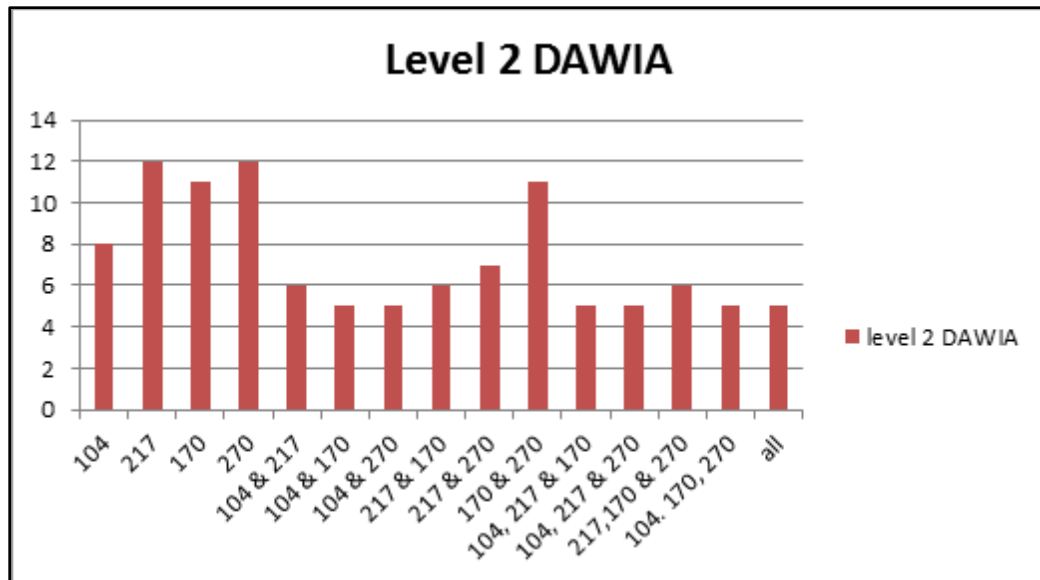


Figure 8. Breakdown for the Classes at Level 2 DAWIA

Table 12 presents a breakdown for the classes at Level 3 DAWIA, followed by Figure 9, which displays again the same breakdown for Level 3.

Table 12. Breakdown for the Classes at Level 3 DAWIA

	CON 104	CON 217	CON 170	CON 270
Number of People Taking These Classes (Highlighted Sections Combined)	4	0	0	0
	3	3		
		3	3	
			3	3
	2		2	
		3		3
	3			3
	2	2	2	
		3	3	3
	2		2	2
	2	2		2
	2	2	2	2
Total Number of People Taking This Course	8	4	3	4

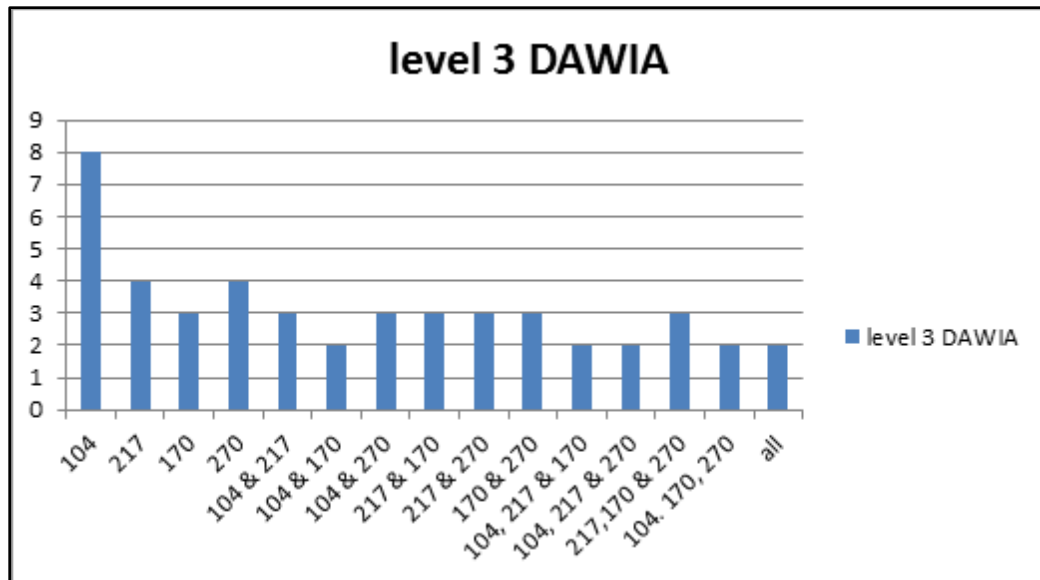


Figure 9. Breakdown for the Classes at Level 3 DAWIA

Figure 10 shows all three of the levels together, with each color showing the cumulative effect for that particular level.

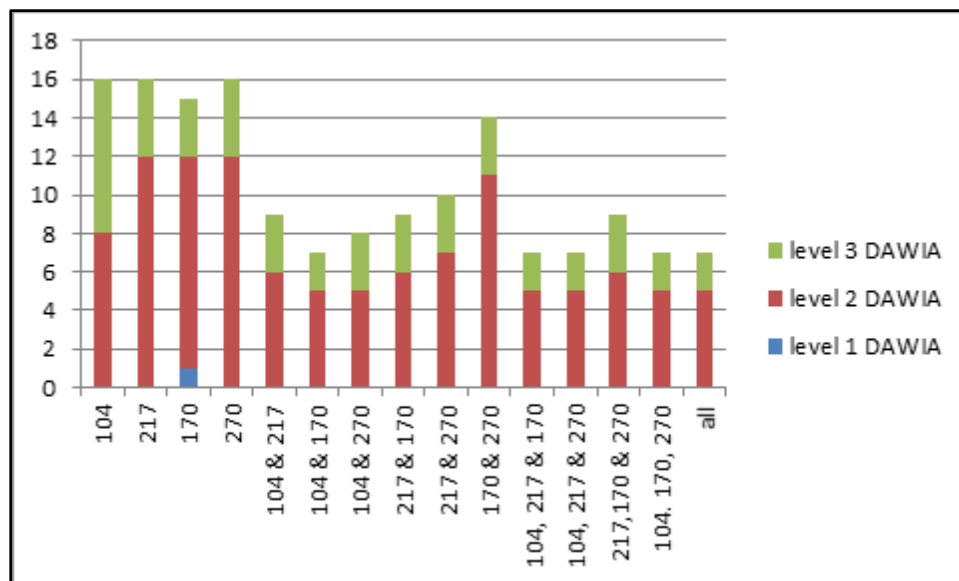


Figure 10. Breakdown for the Classes at All Levels DAWIA

Table 13 describes the data cumulative, that is, all levels together. There are overlaps (i.e., some people took more than one course). We present the gathered data on the number of analysts first by the course taken, followed by the number of analysts that have taken two courses, followed by the number of analysts that have taken three courses, and finally followed by the number of analysts that have taken all four courses.

Table 13. Breakdown for the Classes at Levels Combined DAWIA Certification

	CON 104	CON 217	CON 170	CON 270
Number of people taking this one course among one of the courses they took	16	16	16	16

	CON 104	CON 217	CON 170	CON 270
Number of people taking only this one course	6	4	1	0

	CON 104 and CON 217	CON 104 and CON 170	CON 104 and CON 270	CON 217 and CON 170	CON 217 and CON 270	CON 170 and CON 270
Number of people taking these two courses	9	8	8	10	10	14

	CON 104 CON 217 and CON 170	CON 104 CON 217 and CON 270	CON 217 CON 170 and CON 270	CON 104 CON 170 and CON 270
Number of people taking these three courses	7	7	9	7



	CON 104, CON 217, CON 170 and CON 270
Number of people taking all four courses	7

From the second sub-table in Table 13, one could see that 11 respondents took one course or fewer. Because the one person at Level 1 also took only one course, this means that 12 of 36 respondents took one course or fewer, which means that 33% of the respondents have taken only one pricing course. Of the 12, six have taken only CON 104, which has not been conducted in several years. Four took only CON 217, which is a course that was considered inadequate for training contracting personnel in contract pricing dealing with commercial items, and because it was an online course, it was not as intensive. CON 217's focus was on cost analysis for large dollar items over the TINA threshold of \$700,000. One Level 3 respondent indicated that he or she had no pricing courses. From this data, the authors determined that out of the 36 respondents, at least 32 have taken resident courses in contract pricing. It can be said that most of our respondents have had ample training in contract pricing. The authors recommend that anyone who took only CON 217 take CON 170 if he or she works on commercial purchases. The six who took CON 104 should consider taking CON170 and/or CON270 as a refresher. In addition, the authors recommend that no individual can validate pricing courses based on experience alone, as this must have been the case with the Level 3 respondent with no pricing courses. Our opinion is that experience cannot duplicate the importance of education unique to pricing throughout the contracting process. The survey helped us determine what courses the analysts took, but it did not ask the question of whether the pricing courses helped them in performing price analysis, and so the authors will follow up on this in the next survey.

The charts in Figure 11 identify the categories of acquisitions that respondents handle on a daily basis (broken down by category).



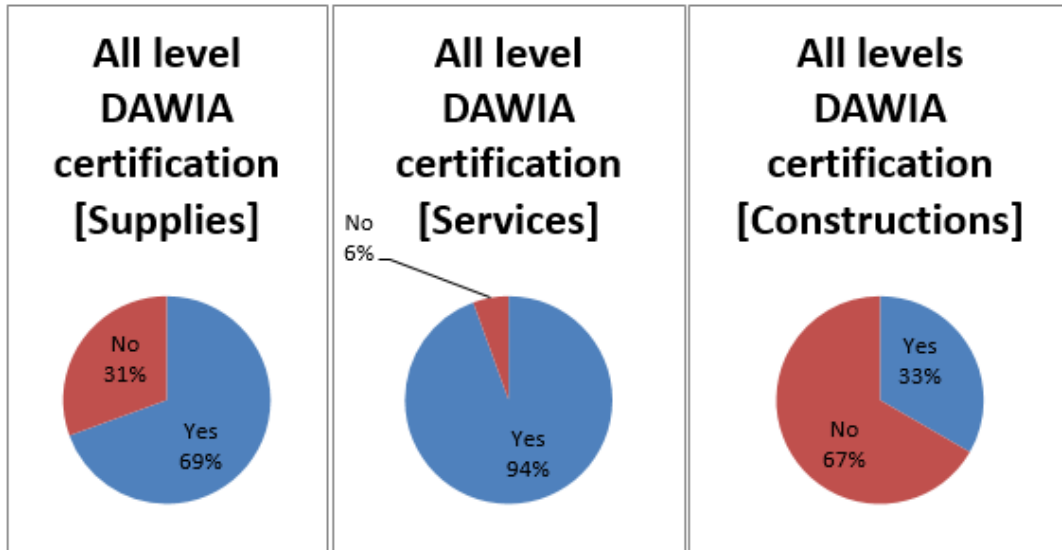


Figure 11. Answers to “Please Identify the Categories of Acquisitions You Handle on a Daily Basis [Yes/No Supplies, Yes/No Services, Yes/No Construction]”

As shown in Figure 12, non-supervisory and unspecified personnel represented 80% of survey respondents. All supervisors that responded to the survey had greater than five years of acquisition experience, and five of the seven supervisors were DAWIA Level 3 certified, with two supervisors having only DAWIA Level 2 certification.

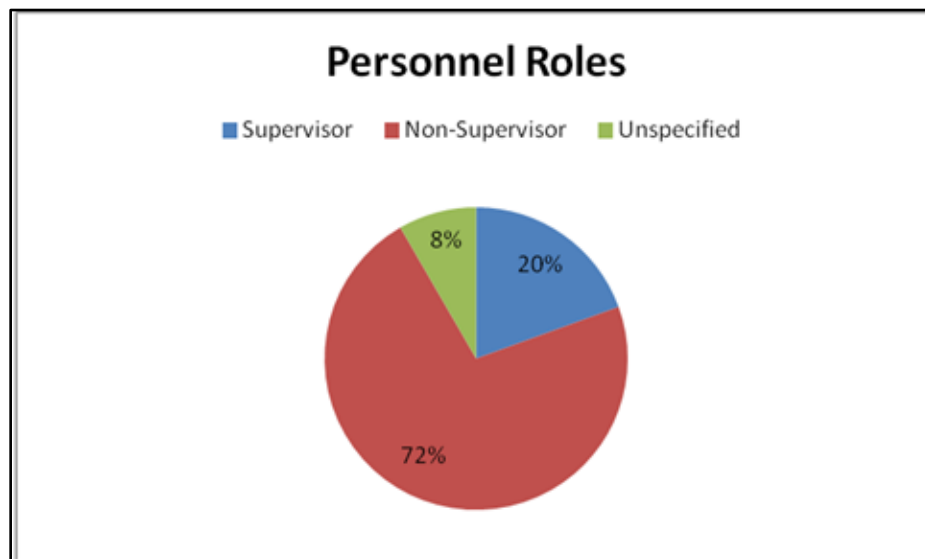


Figure 12. Breakdown of Personnel Roles

Of the personnel surveyed, 33 of 36 indicated that they dealt with commercial item procurements on a daily basis, compared to 13 for noncommercial item

procurements, with 100% of the respondents stating that the requirements were firm-fixed-price contract types. Although approximately 36% of the respondents said they contract for noncommercial items daily, none of the files randomly selected for review were for noncommercial items.

Of the personnel surveyed, 34 of the 36 indicated that they perform price analysis in determining price reasonableness. The responses coincide with the sampling of data from the contract files: 86% of contract files had memoranda for price reasonableness or other documentation justifying the reasonableness of price. The survey asked personnel whether they identify current market pricing for the item being purchased or for similar items. Figure 13 provides a breakdown of all the responses, and then breaks the responses down individually by DAWIA certification level. (There was only one response at DAWIA Level 1, and that was “Yes.”)



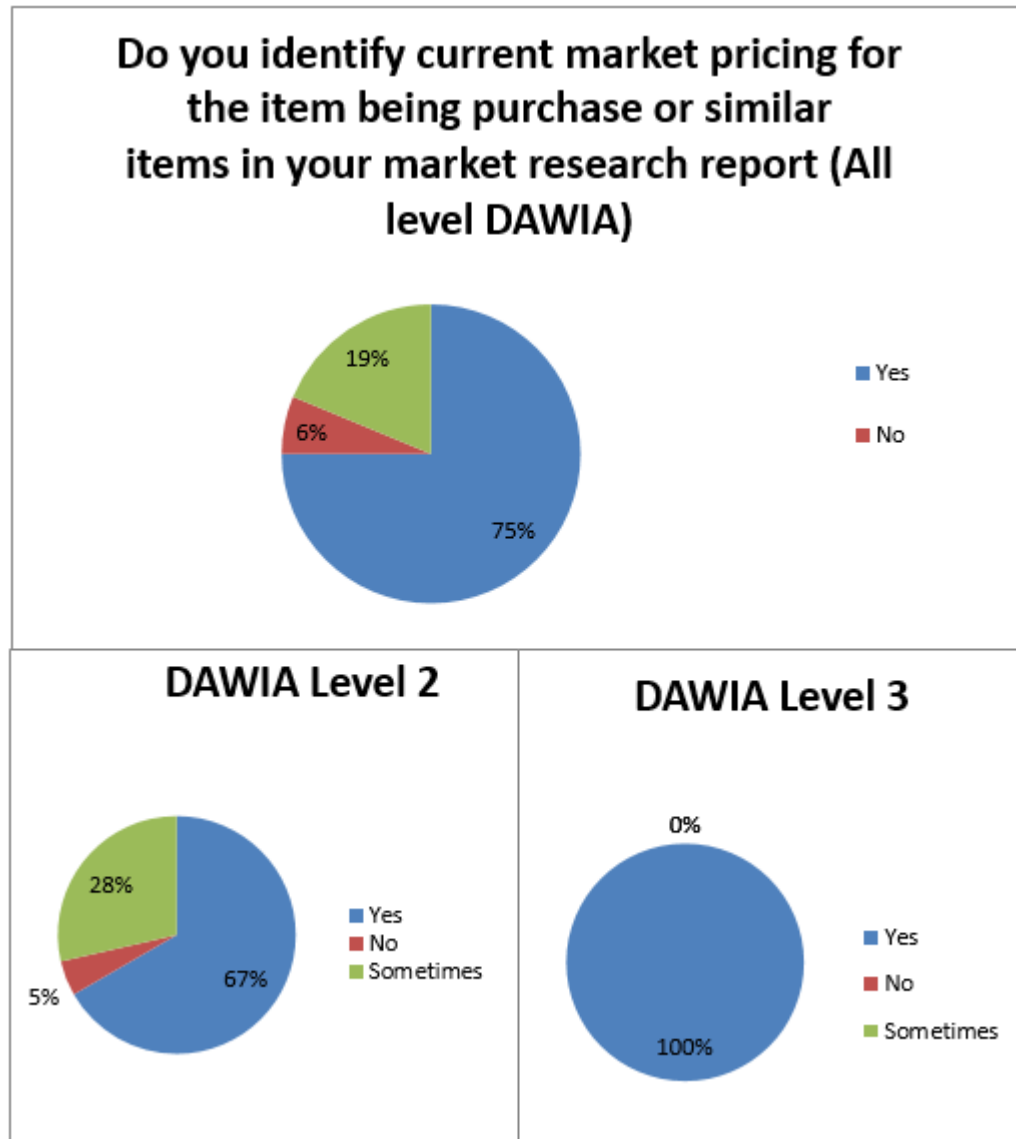


Figure 13. Answers to the Question “Do You Identify Current Market Pricing for the Item Being Purchased or Similar Items in Your Market Research Report?”

Although a majority of survey respondents indicated that they identified current market pricing in their market research reports, this was not true in the contract files that the authors reviewed. Out of 119 files, the authors had 64 market research reports (54%), of which 26 (41%) addressed any type of pricing data collected (FAR Part 10: Market research reports are not required for actions under the SAT of \$150,000 except when adequate information is not available and the circumstances justify its cost).

Figure 14 describes how the survey respondents claim they execute quantitative methods in performing price analysis and determining price

reasonableness (also broken down by level certification). There was only one response at DAWIA Level 1, and that was “0 (Never).” Looking at all levels, only eight of 36 respondents said that they never use quantitative techniques. However, in reviewing 119 files that were commercial and noncommercial, over and under the thresholds, only a handful even used a quantitative technique.

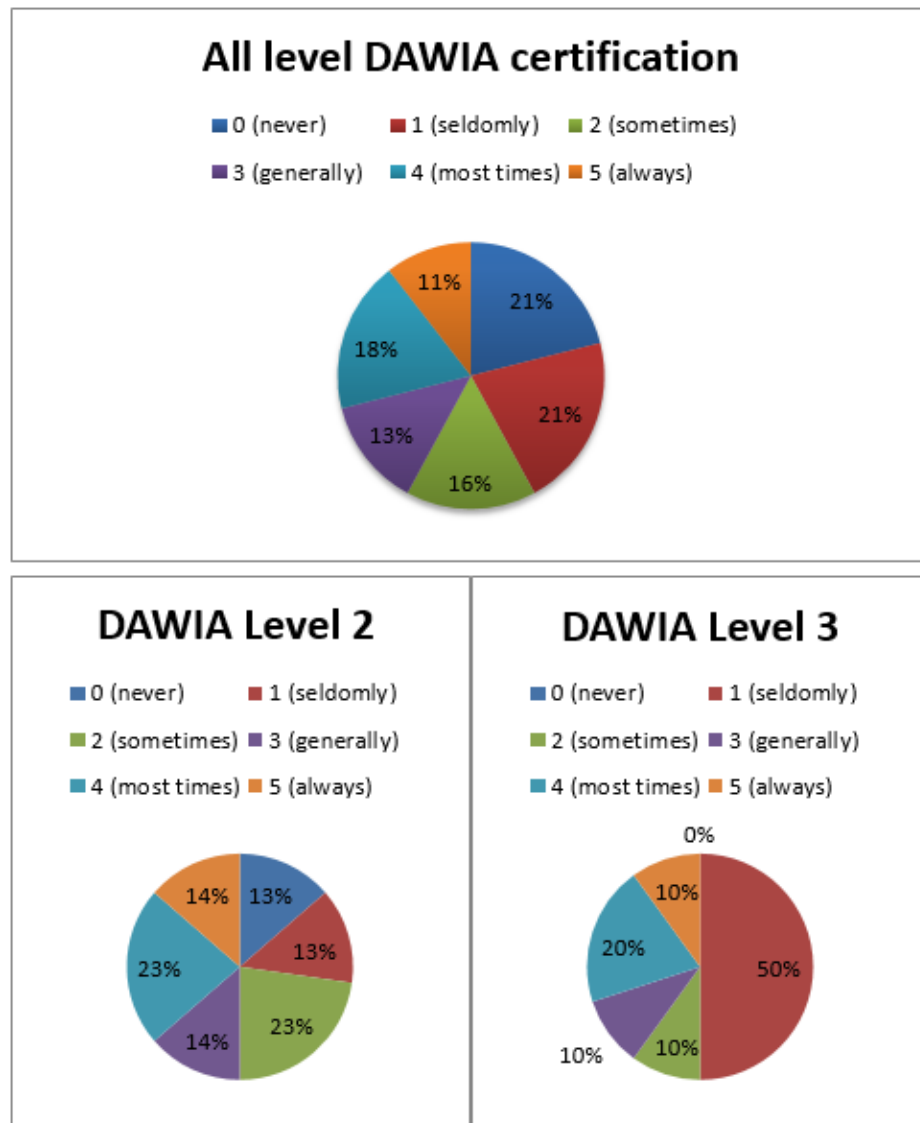


Figure 14. Answers to the Question “Do You Execute Fundamental Quantitative Methods (i.e., Price Indexing, and Rough Yardsticks, Cost-Volume Pricing and/or Pricing Trends [Regression Analysis]) in Performing Price Analysis and Determining Price Reasonableness (Frequency)?”

Figure 15 describes the challenges in executing price analysis (also broken down by level certification). There was only one response at DAWIA Level 1, and that was “time to complete.”

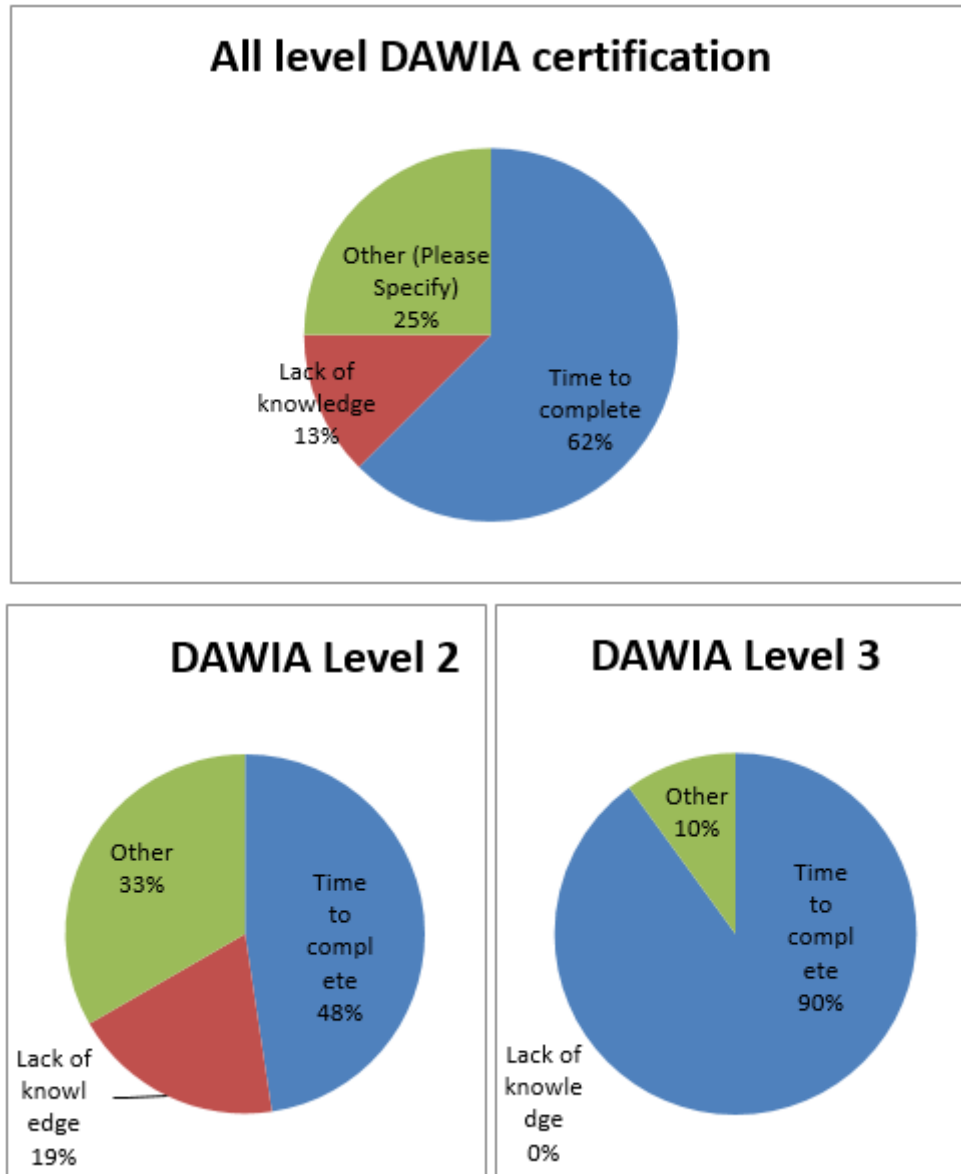


Figure 15. Answers to the Question “What, If Any, Is Your Challenge in Executing Price Analysis, Determining Price Reasonableness?”

Thus, for challenges that the respondents face in executing price analysis and in determining and documenting price reasonableness, approximately 13% responded that a lack of knowledge existed, while approximately 62% responded that they did not have adequate time to conduct price analysis. Of the five responses indicating a lack of knowledge (13%), only one had more than five years' experience, and this individual appears to be an outlier because he or she indicated that he or she was in contract administration, not purchasing. Three of the four who responded that they lacked knowledge are DAWIA Level 2 certified with one to five years of experience.

All respondents citing a lack of knowledge were not in supervisory positions. In some surveys, respondents who selected “other” specified various reasons for why price reasonableness is a challenge. One supervisor stated, “I do not believe that the DAU class does a good job of teaching the requirement. DAU focuses on major weapons/production/trend analysis, etc. It doesn’t really teach the basics for the everyday buyer.” A non-supervisor response was that “DAU contract pricing training was good ‘theory’ learning, does not always transfer to actual buys being made in the office environment.” One respondent cited that “services tasks in the performance work statement (PWS) are poorly defined and written.”

Another question in the survey asked the respondents whether price memos were being reviewed by someone other than the writer of the pricing memo before and after the contract action is signed and awarded by the contracting officer. Approximately 50% of the time memos are reviewed (before, after, or even reviewed outside of the organization), per the graphs in Figures 16 through 18.



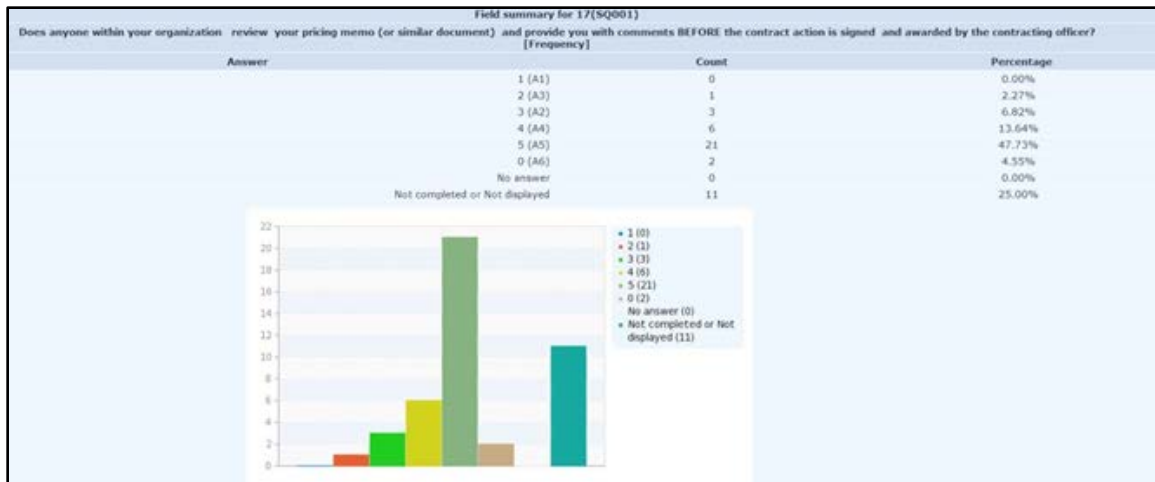


Figure 16. Answers to the Question About Price Memos Reviews *Before* Award



Figure 17. Answers to the Question About Price Memos Reviews *After* Award

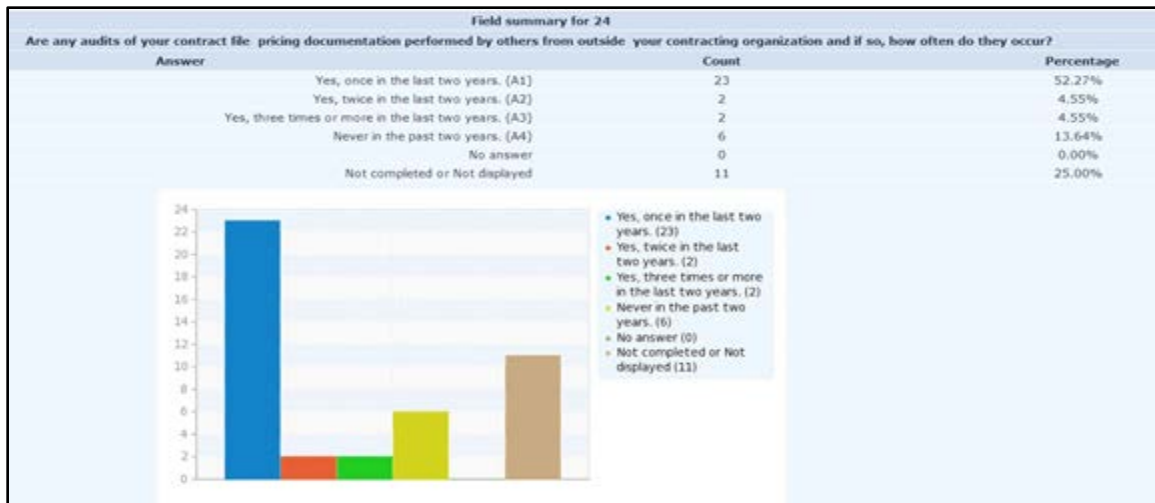


Figure 18. Answers to the Question About Outside Audits

For the question “What, if any, is your challenge in executing price analysis, determining price reasonableness, and documenting the same?,” all but one of the DAWIA Level 3 respondents said that the time to complete is the main challenge, rather than a lack of knowledge. Even the respondents with less experience still said that time is the main challenge (some respondents did say a lack of knowledge, but not so many), as seen in Figure 19.

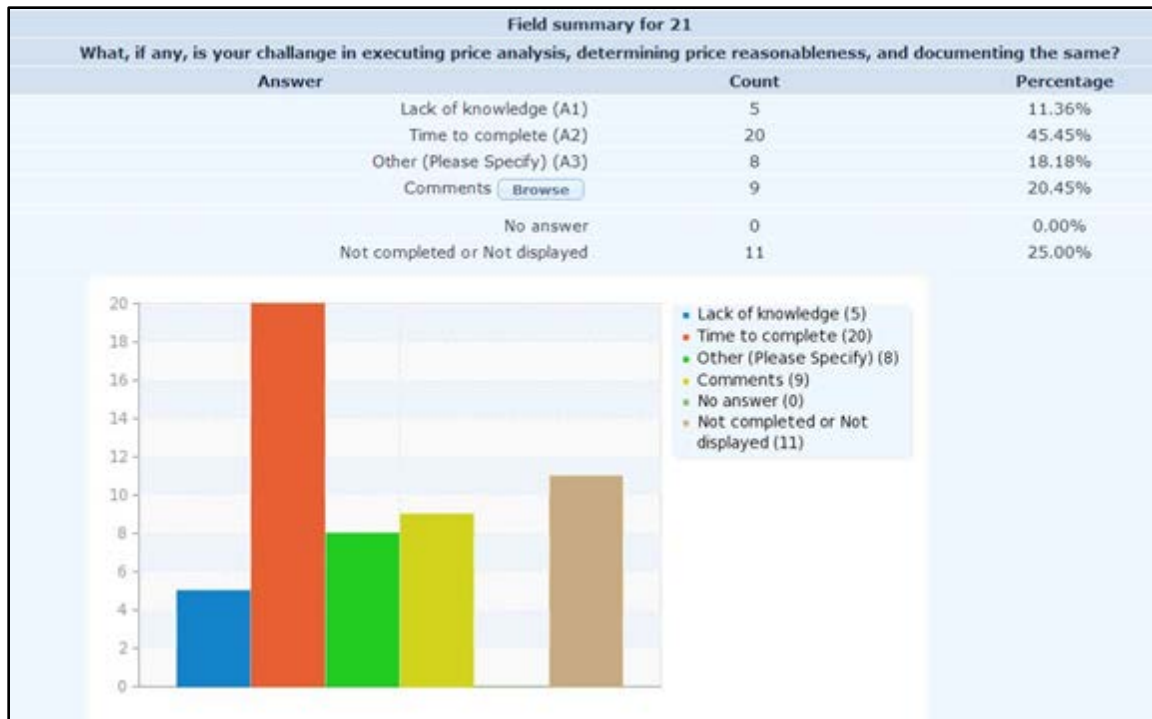


Figure 19. Answers to the Question “What Is Your Challenge in Executing Price Analysis, Determining Price Reasonableness, and Documenting?”

An interesting observation came about based on our review of the respondents' answers to questions depicting their pricing challenges. The surveys led us to the conclusion that the employees felt very confident in their abilities to perform price analysis, yet the supervisors felt less confident in the non-supervisory personnel. That is, the supervisors felt that the manpower and skill level were the biggest challenge, yet the non-supervisory personnel felt that they did not have enough time to perform the price reasonableness analysis. These two points of view are contradictory. Due to the small number of supervisors that responded to the survey request, the authors are not sure if the sample size is appropriate to make a conclusion. Through future observations, the authors hope to include more survey data to make a more appropriate conclusion about this perceived difference of opinion between supervisory and non-supervisory personnel.

Summary, Conclusions, and Recommendations

This last section presents answers to research questions by detailing applicable findings with the authors' analysis of such. The findings and analysis behind each research question is followed by the authors' recommendations. In addition, the fifth section of the report includes a discussion of the significance of the

authors' recommendations, suggested changes for future research work, and areas for possible future study.

Research Questions

This research addressed the following questions:

1. To what extent do pricing memos state the method of price analysis used in documenting price reasonableness. What price analysis methods are being used?
2. Do market research reports refer to market information that improves the buyers' understanding of pricing in the marketplace?
3. To what extent do pricing memos deviate from FAR/DFARS requirements? What type of reviews are being done to validate the quality of pricing memos and appropriate documentation?
4. What was the justification for price reasonableness used in the acquisition of a supply versus a service? Are the justifications similar? If not similar, what are the differences?
5. Do pricing memos use independent government cost estimates for price comparison? Do the IGCEs include sufficient justification/supporting information behind the cost estimates?
6. Why do contract/purchase order files lack price reasonableness determinations?
7. Is the current training specific to commercial items and price analysis sufficient for our contracting personnel?
8. Can we conclude that the DoD is doing a better job in pricing commercial items? Can the DoD do a better job in pricing commercial purchases?

During the investigation of the preceding questions, the authors came to the following conclusions about our research after collecting and then analyzing the research findings from the contract files and the contracting personnel survey results. Following are the research findings and analysis for each question and the authors' recommendations, as applicable.

1. To what extent do pricing memos state the method of price analysis used in documenting price reasonableness. What price analysis methods are being used?

Findings: All of the pricing memos documented some type of price analysis used in determining that the price was reasonable (FAR 13.106-3(a)(2)(ii)). Comparison of the proposed price with prices found "reasonable on previous purchases" was the



most highly utilized method of determining price reasonableness in the contract files reviewed (see Figure 20). The research findings show that 49 of the 119 files used comparing previous prices as a price analysis method (which is 41% of the total files). Competition documentation was present in 34 of the 119 files, namely, 28% of the files.

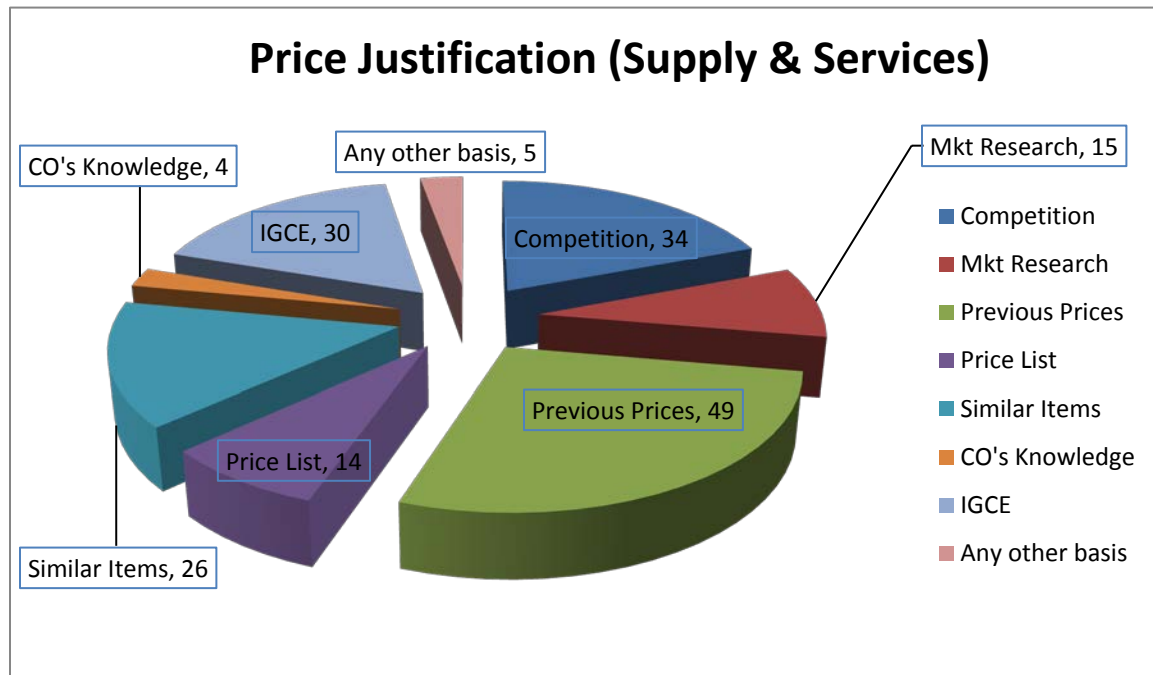


Figure 20. What Was the Justification for Price Reasonableness Based On?

Analysis: Comparing pricing to prices already found reasonable on previous contracts is likely preferred over the other price analysis methods, due to time savings on the part of the analyst. There are several risks involved in comparing previous prices paid. One is the determination that the original price was reasonable. Second, and more important, is that the previous price needs to be adjusted to make an apple-to-apple comparison to the offered price (e.g., time, quantities, and urgency of action).

Unfortunately, the research checklist for reviewing the files did not ask whether there was any documentation discussing what adjustments were made to the prior price to make it comparable. This question will be added for future research. The personnel survey had a majority of personnel citing a lack of time as a reason that adequate price analysis was not conducted. The use of the time-saving method of comparing to previous paid-prices price analysis supports the assertion from contracting personnel that they do not have adequate time to do proper price analysis.

Recommendation: Previous prices is one of the two preferred methods of price analysis; see FAR 15.404-1(b)(3). However, using a previous price as a price comparison is only one part of the analysis. Further determination if the original price was reasonable is necessary plus any adjustment for quantity/escalation to make the prices comparable. FAR Part 15 states that adequate price competition normally establishes price reasonableness for a previous price. FAR Part 13 gives the analyst freedom in determining whether the previous price was reasonable based on any reason. PGI 215.403-3(4) states,

Reliance on prior prices paid by the Government. Before relying on a prior price paid by the Government, the contracting officer must verify and document that sufficient analysis was performed to determine that the prior price was fair and reasonable. Sometimes, due to exigent situations, supplies or services are purchased even though an adequate price or cost analysis could not be performed. The problem is exacerbated when other contracting officers assume these prices were adequately analyzed and determined to be fair and reasonable. The contracting officer also must verify that the prices previously paid were for quantities consistent with the current solicitation. **Not verifying that a previous analysis was performed, or the consistencies in quantities, has been a recurring issue on sole source commercial items reported by oversight organizations.** Sole source commercial items require extra attention to verify that previous prices paid on Government contracts were sufficiently analyzed and determined to be fair and reasonable. At a minimum, a contracting officer reviewing price history shall discuss the basis of previous prices paid with the contracting organization that previously bought the item. These discussions shall be documented in the contract file. [emphasis added]

Currently, very little if any oversight is done for purchases under \$3 million, according to contracting directors whom the authors spoke with. As stated previously in the PGI reference, using previous prices is more than just documenting a former contract price. When done poorly, it could cost us thousands, if not millions, in higher prices. Similar to the recommendation related to Question 3, the authors suggest that the DoD implement oversight procedures to ensure that price analysis is documented and reviewed for completeness and adequacy, even for purchases less than the SAT. The authors recommend some internal control to make sure that pricing documentation is being done. An example would be that each office could conduct a random sampling to see how well the files are complying with appropriate pricing documentation. Ensuring that pricing memoranda are accurate is essential for keeping costs down and confirming that contract awards are valid.

In addition, the data showed that price competition is not occurring as much as one would imagine for commercial items. Why is there less competition? The



authors weren't looking at that issue in our current research, but it is something to consider looking into through future research.

2. Do market research reports refer to market information that improves the buyers' understanding of pricing in the marketplace?

One of Two Findings: Market research reports, when done, can provide critical information relevant to the contracting environment, the technical details of the pricing, and more. Market research reports are not required for actions under the SAT except when adequate information is not available and the circumstances justify the cost. Surprisingly, there were a considerable number of market research reports in the actions under the SAT. See Table 14. Sixty of the 104 under \$150,000, representing 54% of the files reviewed, included market research reports.

Analysis: The authors did not look at the extensiveness of these reports; however, the fact that this many reports were done when it was not required certainly says the analysts determined that the circumstances justified the time and cost.

Table 14. Answers to the Question "Is There a Market Research Report in the File?"

Files	MRR	No MRR	Totals
<150k	60	44	104
>150k	4	11	15

However, this was not so with files where market research reports are required. It is interesting that only four of the 15 files over \$150,000, representing 26% of the files, had a market research report in the file. Considering that this is a requirement for actions over \$150,000, it shows that analysts do not complete market research reports on a regular basis. Unfortunately, the workload and manpower shortages make the performance of market research unlikely.



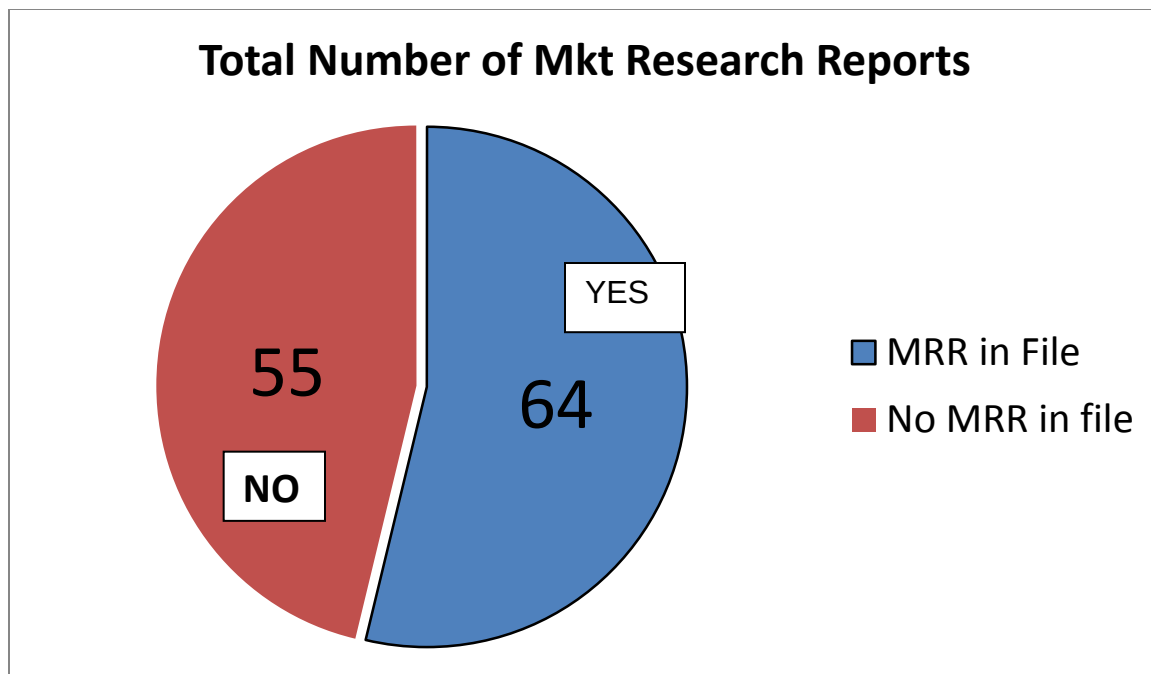


Figure 21. Answer to the Question “Is There a Market Research Report (MRR) in the File?”

Two of Two Findings: Although a majority of survey respondents indicated that they identify current market pricing in their market research reports (see Figure 21), this was not true in the contract files that the authors reviewed.

Analysis: Out of 119 files, the authors had 64 market research reports (54%), of which 26 (41% of the preceding 64) addressed any type of pricing data collected. What is more interesting than the 41% that did include pricing information in their market research report is that *none* of the seven actions over \$700,000 did (see Figure 22).

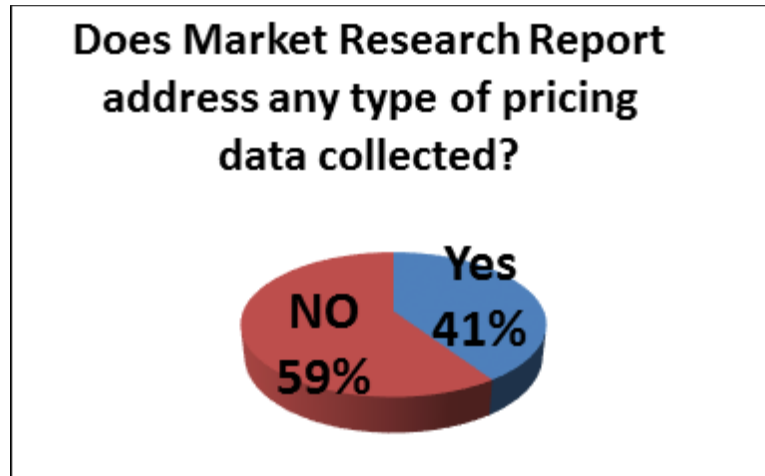


Figure 22. Answers to the Question “Does the Market Research Report Address Any Type of Pricing Data Collected?”

Recommendation: FAR Part 10 requires the determination of a commercial item when the dollar value is over the SAT. It states that this market research should provide pricing information about purchases; however, a reference to pricing information is not required. Market research to include pricing information that is accomplished in the pre-solicitation stage will give the analyst a picture of the marketplace and a range of acceptable prices. Without that kind of information, the analyst most likely does not have a clear idea of what the price should be before the proposals/offers are submitted. The authors understand that market research is required to identify items as commercial and that it also can assist in finding sources. The authors conclude that if the time were taken to do market research by the customer and/or the analyst, it would only take a little more time to document price ranges for the item being researched. This is one way for the analyst to gain knowledge about the “should-pay price.” The authors recommend that FAR Part 10 require that pricing be discussed in the market research reports and that market research be required, or at least an abbreviated form of market research be done, on commercial purchases under the SAT.

3. To what extent do pricing memos deviate from FAR/DFARS requirements?
What type of reviews are being done to validate the quality of pricing memos and appropriate documentation?

Findings: A number of contract files that the authors reviewed were unable to demonstrate that prices paid were reasonable due to the following inadequate price analysis methods, as depicted in Table 15. From this data, the authors determined that the personnel involved in performing these contract actions did not include sufficient documentation to support the price analysis method used.

Table 15. Summary of Inadequate Price Analysis Methods (Including Contract Actions That Used Either Simplified Acquisition or Negotiation Procedures)

	Under \$150,000	Over \$150,000
Inadequate price competition	0 of 31	0 of 3
Incomplete statements based on references to market research	1 of 14	1 of 1
Acceptance of prior prices without establishing their reasonableness	6 of 49	1 of 1
Incomplete references to current price list, catalog, or advertisement	0 of 15	0 of 0
Incomplete comparison with prices of similar items	6 of 26	0 of 0
Incomplete statement of price reasonableness by contract officer	3 of 4	0 of 0
Incomplete comparison with IGCE or use of unreliable IGCEs	24 of 27	4 of 5
Incomplete statement for price reasonableness for any other reasonable basis	0 of 4	0 of 1
Totals of inadequate documentation	40	6

Analysis: There are several reasons why price reasonableness memoranda may lack sufficient justification/supporting information. The reasons include improper training/knowledge of the contracting workforce, an overloaded workforce without enough time to complete proper documentation, or use of an improper price reasonableness determination method. The survey of supervisors indicated that supervisors believe that their contracting workforce may not have the necessary knowledge to properly complete fair and reasonable price determinations. However, based on surveys, all but one respondent had taken one or more pricing courses. Responses to the survey also indicated that supervisors believe that their contracting activity has a shortage of manpower. This shortage of manpower has led to the contracting personnel being overworked and possibly forcing them to cut



corners. As contract pricing has often been overlooked in the past, it is likely that this trend continues. Contracting personnel have attempted to meet the challenges presented by the warfighter, but documentation of price reasonableness determination has suffered due to manpower shortages.

Findings: In determining what type of reviews are being done to validate the quality of pricing memos and appropriate documentation, the authors asked the respondents whether price memos were being reviewed by someone other than the writer of the pricing memo before and after the contract action is signed and awarded by the contracting officer. Their answers revealed that approximately 50% of the time, memos are reviewed (before, after, or even reviewed outside of the organization). In talking with contracting directors, the authors got the impression that seldom does any review of a file less than \$3 million take place, that even a review for actions over \$3 million but less than \$10 million is spotty, and also that peer reviews are not the best way to improve the contract files, due to the pressure that it creates at work. These statements contradict what the respondents said in the surveys. However, in analyzing the contract file research findings, the authors saw that no reviews were being done on the 119 files.

Analysis: It is understandable that the contract actions the authors looked at are small-dollar actions compared to other government purchases and there is not enough time for the kind of oversight reviews that might assist leaders in diagnosing pricing problems. However, one must consider that when no penalties are to be invoked, it opens up the opportunity for analysts to forgo pricing. If possible, the authors would like to document what type of reviews will be found in the files we examine in the future.

Recommendation: Pricing memo inaccuracies have affected contracting and the DoD in several ways. Consequences include improper price reasonableness determinations and overpaying for procurements. To begin with, if the pricing memoranda are inaccurate, then it is possible that the price reasonableness determination has not been completed correctly. Contracting personnel need to ensure that the memoranda are accurate and properly identify how the fair and reasonable price was determined. Inaccurate pricing memoranda can often lead to the DoD's overpaying for supplies, services, and construction acquisitions.

Similar to the recommendation related to Question 1, the authors suggest that the DoD implement oversight procedures to ensure that price analysis is documented and reviewed for completeness and adequacy even for purchases less than the SAT. The authors recommend some internal controls to make sure that pricing documentation is being done. An example would be that each office could conduct a random sampling to see how well the files are complying with appropriate pricing documentation. Ensuring that pricing memoranda are accurate is essential



for keeping costs down and confirming that contract awards based on FAR rules are valid and that electronic file documentation includes records of reviews.

4. What was the justification for price reasonableness used in the acquisition of a supply versus a service? Are the justifications similar? If not similar, what are the differences?

Findings: Table 16 addresses the type of FAR 13.106 or FAR 15.4 justifications used in determining price reasonableness for all actions. The table provides some insight into the type of justifications most used for the acquisition of a supply versus a service.

Table 16. Answers to the Question “What Was the Justification for Price Reasonableness Used in the Acquisition of a Supply Versus a Service?”

What was the justification for price reasonableness?		
	Supply	Service
Competitive Quotes	26	8
Market Research	11	4
Comparison With Prices Found Reasonable on Previous Purchase	31	18
Current Price List, Catalog, or Advertisement	8	6
Comparison With Similar Items	17	9
Contracting Officer’s Personal Knowledge	4	0
Comparison to an Independent Government Estimate	13	17
Any Other Reasonable Basis?	4	1
Cost Analysis of Offeror’s Data	0	0

Analysis: In Question 1, the authors discussed which one of these price analysis methods is used the most. In this question, the authors take these findings a further



step and conclude what differences, if any, can be found in the price reasonableness determinations between supplies and services. The authors believe that the findings practically speak for themselves. Yes, it is apparent that the type of price determinations made is different. The why, we do not know, but can infer that it is much easier to find prices in the marketplace for supplies than for services. For services, there appears to be less competition, so there is more dependence on previous prices and IGCEs to make price comparisons. When it comes to supplies, there appears to be more competition, more ability to find similar items of a type and previous prices as data for comparison of price purposes.

When acquisition regulations were originally written, the focus was on buying supplies. These regulations of course have evolved over time but are still heavily based on supply purchases. It's been apparent for some time that the federal government has difficulties in acquiring services. This topic is not part of this research, but there is plenty of literature available to read about the issues surrounding the purchase of services. As a part of many results from the Services Acquisition Reform Act (SARA) of 2003, the DoD (2012b) *Guidebook for the Acquisition of Services* was published in 2011 and republished in 2012. The guidebook states that

the acquisition of services plays a vital role in advancing and maintaining the mission capability of the Department of Defense (DoD). Services acquisition covers a broad spectrum of requirements from research and development, advisor services, information technology support, medical, to maintaining equipment and facilities. For over ten years the DoD has spent more on service requirements than it has on equipment acquisitions. While the acquisition of major systems follows a much defined process, the acquisition of services tends to be more ad hoc. Services acquisition is not about awarding a contract; it's about acquiring performance results that meet performance requirements needed to successfully execute an organization's mission. (DoD, 2012b)

This guidebook provides acquisition teams with a disciplined, seven-step process for the acquisition of services.

The guidebook is used throughout the DoD in workshops and courses on developing performance-based statements of work for acquiring services, along with a successful software tool called ARRT, which stands for Automated Requirements Roadmap Tool. However, pricing is discussed very little in the guidebook.

Recommendation: Buying services is different than buying supplies; that also means that they are different when it comes to pricing. A step should be added to the acquisition guidebook that focuses just on the pricing of services. Possibly the



FAR, DFARS, and PGI need to reframe price analysis methods that are more useful in purchasing services, as opposed to current references to supplies only.

5. Do pricing memos use independent government cost estimates for price comparison? Do the IGCEs include sufficient justification/supporting information behind the cost estimates?

Findings: Next to previous prices, per FAR 13.106-3(a)(2)(vi), IGCEs were the next heavily used as the basis for price reasonableness, essentially 25% of the contract actions reviewed. However, the authors found that 65% of the IGCEs were not substantiated (unreliable).

The authors further broke down the number of reliable IGCEs by those under and over \$150,000 the SAT (see Figure 23).

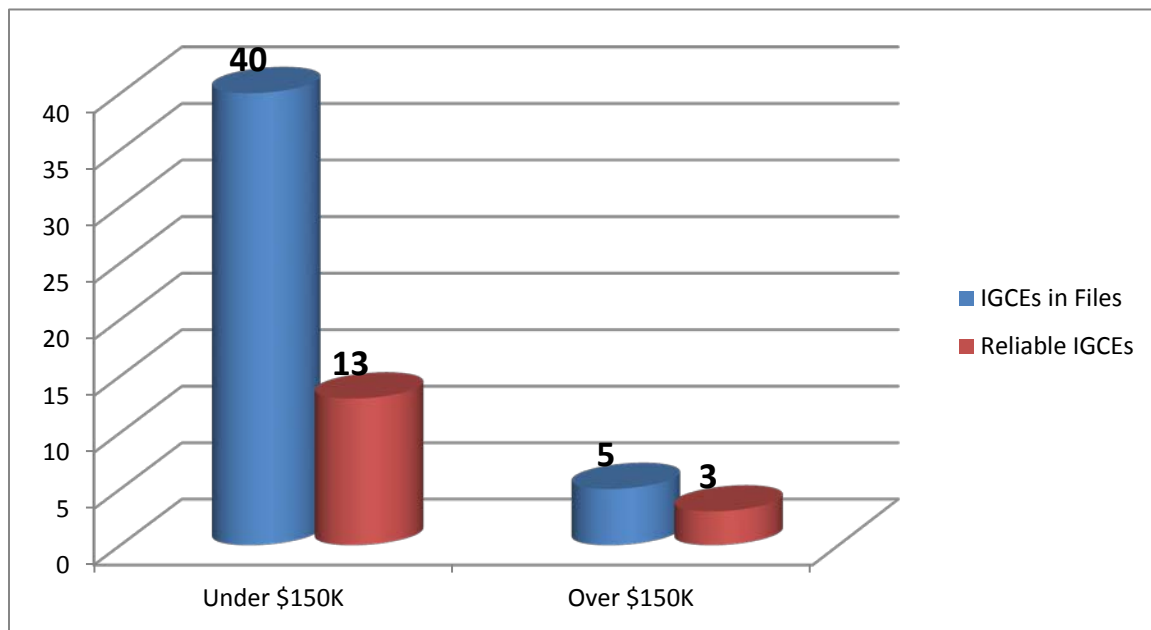


Figure 23. Number of Reliable Independent Government Cost Estimates

To provide a bigger picture of how poor IGCEs played a part in price reasonableness determinations, see Table 17.

Table 17. “Dollar Value of Actions With Unsubstantiated IGCEs Used in Determining Price Reasonableness”

	Value of the contract action in dollars	Under \$150,000	Over \$150,000	Negotiated Procedures
		<i>Commercial</i>		
	24,990	X		
	14,250	x		
	6,605	x		
	6,590	x		
	3,730	x		
	411,310		x	
		<i>Non Commercial</i>		
	1,078,723		x	x
Totals	1,546,198	5	2	1

Analysis: IGCEs, when reliable, are a very useful tool for the analyst in determining the reasonableness of prices pre-solicitation and during the evaluation and negotiation phase. The authors found that IGCEs were being used substantially to justify prices in the contract file actions reviewed for this project. In particular, their use for justifying the price of services was critical. IGCEs appeared to be needed to determine the price reasonableness, in particular, where there were no competitive quotes or reasonable-based previous prices to consider. The authors noted earlier in our findings that IGCEs were used often in determining reasonable prices for services more than supplies. Therefore, these estimates need to be accurate and substantiated because they affect prices in two different ways: one, they give the analysts a clue as to what the price should be, and two, they provide a basis for the offer and/or proposed prices.

In reviewing regulations, there is no requirement for IGCEs. IGCEs are only mentioned one time in the FAR/DFARs as a price analysis comparison method—FAR 15.404-1(b), *Price analysis for commercial and non-commercial items*.



(2) The Government may use various price analysis techniques and procedures to ensure a fair and reasonable price. Examples of such techniques include, but are not limited to the following:

(v) Comparison of proposed prices with independent Government cost estimates. [emphasis added]

Only in the Contract Pricing Reference Guides (Federal Acquisition Institute & Air Force Institute of Technology, 2012) will one find anything more about IGCEs:

General Guidelines on Using Independent Government Estimates. The IGE is a useful tool used for comparison to the proposed price. The IGE is developed based on the most recent data determined to fulfill the Government's requirement and should accompany the procurement request. The submitted cost estimate shall include a basis for the Government's estimate using current validated data whether at the price level or at the cost element level. If an industry standard is used for validation then state why the selected industry standard is the most appropriate authority. The dollar value, type procurement, and the complexity of the procurement will determine how detailed the IGE is to be. Cost element or price values alone are not adequate without a basis to support the estimated values. The cost estimate does not have to be an exact match to the offeror's proposal to be used as a comparison, but should have adequate information to determine how the Government's approach to the estimate compares to the offerors understanding of the requirement. Differences in the comparison shall be analyzed and documented. The IGE should not be adjusted to the offerors price as the offerors approach may have differences the Government did not account for and may warrant additional pricing inquiry. The analyst must provide an adequate narrative validating the source or the basis of the information comprising the estimate. The details of the IGE are significantly more critical in a sole source environment where no competition exists and or where an exemption may exist from obtaining cost or pricing data from the offeror. The IGE may also be used as a comparison where two or more offers are received but only one offer is considered technically acceptable. Ask the following questions of any Independent Government Estimate before using it as a basis for comparison with offered prices.

- How was the estimate developed made?
- What assumptions were made?
- Were any differences in the comparison work statement accounted for?
- What information and tools were used?
- Where was the information obtained?



- How did previous estimates compare with prices paid?
- Were unique conditions applied to the prior procurements and do not apply now?

This guidance is certainly helpful in analyzing IGCEs, but what is being done to train the estimators of the IGCEs and requiring that IGCEs be substantiated?

Recommendation: The authors propose that government activities increase the importance of IGCEs and consider the following steps to make IGCEs more reliable for use in conducting price analysis: (1) the analysts should be presented with good training on what good IGCEs are and what to document, (2) the individuals that develop IGCEs need to know how to do it (there should be more specific training in this area), (3) an online check system should be put in place where government IGCEs are accepted if and only if the substantiation is provided, and (4) there should be consideration to acknowledge IGCEs in the FAR/DFAR/PGI with more importance than it currently is given. The policy-makers need to appreciate how much IGCEs are being used and how more guidance will assist analysts in determining what the analyst “should pay” and hopefully giving the analysts the ammunition to negotiate better prices.

6. Why do contract/purchase order files lack price reasonableness determinations?

Findings: Out of 119 files, the authors found that 18 had no pricing reasonableness determination in the electronic files. See Table 18. However, other documents that support pricing memos were either missing or could not be found.

Analysis: The authors infer that the pricing was done in many cases, but the documentation was lost. When the authors were conducting the contract file review, they found it difficult to find pricing documents. Most of the files reviewed are stored electronically. Although there was a proposed table of contents for analysts to use in storing information electronically, it was not always being used and/or documents were titled with various names that didn’t appear to be appropriate pricing titles. As a result, the authors concluded that several documents, such as market reports, IGCEs, or price reasonableness determinations, were either missing or just could not be found in the electronic file. In many cases, there was documentation in the file that even referred to a specific document but it was not found in the file.



Table 18. “Number of Files Without Price Reasonableness Memos?”

	Value of Contract Action in Dollars	Under \$150,000	Over \$150,000	Not SAPs
		<i>Commercial</i>		
	131,292	X		
	44,559	x		
	32,858	x		X
	30,008	x		
	24,750	x		
	8,749	x		
	7,500	x		
	7,210	x		
	6,316	x		
	12,986	x		
	999,879		x	X
	1,288,918		x	X
	808,401		x	
	344,469		x	
	162,293		x	
	255,776		x	X
	153,480		x	
		<i>Non Commercial</i>		
	296,122		x	X
Totals	\$4,615,566	10	8	

Recommendation: Although DoD contracting offices are moving to storing the data electronically for good reasons, it did not appear to be working well for the pricing documentation that the authors were looking for. The authors recommend that there be more emphasis on the proper storage of documents, standardized electronic filing of contract pricing documents throughout the DoD, and standardization of the



titling of pricing documents. FAR 4.801 requires that the documentation in the contract files be sufficient to provide a complete background for informed decisions at each step in the acquisition process, support for the actions taken, and information for reviews and investigations. Contract files that lack the proper documentation in supporting the price reasonableness determinations are not sufficient or complete.

7. Is the current training specific to commercial items and price analysis sufficient for our contracting personnel?

Contracting Personnel Comments About Current Contract Pricing Training:

- One supervisor stated, “I do not believe that the DAU class does a good job of teaching the requirement. DAU focuses on major weapons/production/trend analysis, etc. It doesn’t really teach the basics for the everyday buyer.”
- A non-supervisor response was that “DAU contract pricing training was good ‘theory’ learning, does not always transfer to actual buys being made in the office environment.”

Findings: DAU Course Content/FAR Part 13 Pricing Procedures—At the present time, the DAU has significant cost analysis content in two required DAWIA/FAWIA courses, CON 170 and CON 270; however, price analysis content is very limited. The required contracting career courses do not fully address the application and documentation of fair and reasonable prices by using price analysis methods, particularly where contracting action involves pricing for commercial items that use SAPs for up to \$6.5 million. However, maybe it’s not the training but the regulations that drive the training. SAPs provide little guidance on how to document pricing. Considering that commercial buys run up into the millions, the requirements for pricing under SAP or under Commercial must be expanded. Thus, agencies may have missed opportunities to benefit from the utilization of price analysis methods and the potential of price reduction because of inadequate guidance and training.

Thus, pricing courses like CON170, 270, and 235 (an optional advanced course) have come a long way since 2008, when pricing was only offered through an online course. These courses are desperately needed for contracting personnel in formal source selections and sole-/single-source commercial and noncommercial buys over \$6.5 million. These courses are also expected to cover price analysis, which they do but only briefly. They do not cover pricing using SAPs in commercial item acquisitions. The DAU continuous learning module on SAPs does not cover pricing. The current *Commercial Item Handbook* only discusses FAR 15.4. Why does that matter? Because most of the contract files the authors looked at were performing pricing under FAR 13.106-2/3.



Utilizing the price analysis methods described in FAR Part 15 requires that contracting personnel be diligent in verifying information and providing clear documentation. FAR Part 13 states that documentation must be kept to a minimum. For acquisitions not exceeding the SAT, written records of solicitations or offers should be limited to notes or abstracts to show prices, delivery, references to printed price lists used, the supplier or suppliers contacted, and other pertinent data. Nothing is said about documentation for commercial item purchases over the SAT. However, there are hundreds of transactions for commercial items that use these FAR Part 13 procedures for purchasing and pricing up to \$6.5 million. This is allowed per FAR 13.5. This subpart authorizes, as a test program, use of SAPs for the acquisition of supplies and services in amounts greater than the SAT but not exceeding \$6.5 million. For the period of this test, contracting activities must employ the SAPs authorized by the test to the maximum extent practicable.

Upon further observation, the authors reviewed FAR Part 12, Acquisition of Commercial Items, which states that one should

establish price reasonableness in accordance with 13.106-3,
14.408-2, or Subpart 15.4, as applicable.

So, the authors concluded that there is little reason for analysts to use FAR 15.4 for commercial acquisitions under \$6.5 million.

Analysis: In lieu of all the reasons why analysts are not documenting files properly, such as too much workload, not enough time, and so forth, it is the authors' opinion that the lack of appropriate training contributes significantly. It is difficult for managers or anyone to see this trend because purchases below \$3 million are not looked at very much, if at all. As stated directly by an anonymous contracting director, "There is a sampling of files looked at over 3 million. 100% over 10 million but seldom if at all under 3 million."

It appears that analysts may believe that *commercial* means cheaper and there is no need for data or to negotiate, or maybe they don't feel comfortable with price analysis. In addition, as described in the findings, analysts are following the limited requirements of pricing documentation per FAR 13.106.2 and FAR 13.106.3 for commercial buys up to \$2.6 million. Even then, the documentation isn't thorough enough because FAR 13.106.1 and FAR 13.106.2 provide little detail for the analyst to follow, in comparison to FAR 15.4.

Recommendation: Recent reviews by the DoDIG/GAO (2001–2011) concluded that new pricing skill sets have not always been present in the purchase of commercial items. The DoD needs to relook at how analysts are trained for commercial item purchases, particularly when using SAPs. Based on the thousands of actions that are done, FAR Part 13 does not provide enough details or guidance on how to



appropriately conduct price analysis. FAR Part 13 says that there are minimal requirements for documentation support. As a result, people are buying very expensive items, and they use FAR Part 13 as a basis and get away with it without proper pricing research.

Skills need to be built upon tied to SAP buys of commercial items and all purchases under the SAT. Price analysis is not emphasized enough in these types of buys. Current DAU courses emphasize cost analysis. The DoD needs to find a way to put more depth in price analysis, quantitative techniques that can be used in this area effectively like indexing and regression, how to actually find and apply parametrics and real case studies/exercises tied to real simplified acquisition purchases, including commercial item buys that can use SAPs up to \$6.5 million. In addition, the authors suggest more attention to the pricing of services specifically and to delivery orders and task orders.

Also, FAR Part 12 does add an interesting note about commercial item pricing that might be placed in FAR 13.5. The analyst “should be aware of customary commercial terms and conditions when pricing commercial items. Commercial item prices are affected by factors that include, but are not limited to, speed of delivery, length and extent of warranty, limitations of seller’s liability, quantities ordered, length of the performance period, and specific performance requirements.”

The authors also recommend that anyone who took only CON 217 also take CON 170 if he or she works on commercial purchases. The new CON 170 provides much more coverage in pricing than what was available when personnel were only required to take CON 217.

8. Can the authors conclude that the DoD is doing a better job in pricing commercial items? Can the DoD do a better job in pricing commercial purchases?

Based on our findings, as discussed in the fourth section of this report and findings highlighted in answering the preceding research questions, the authors have concluded that the DoD is not doing a better job in pricing commercial items. Yes, the authors believe that the DoD can do a better job. The authors have provided some suggestions/recommendations for DoD governing officials to consider for improving pricing in commercial purchases.

Significance of Recommendations

From a macro view of purchasing, one can appreciate that it appears that only a few dollars can be saved in buys under the SAT or even for commercial items up to \$6.5 million per contract action. Any serious focus on driving price/cost savings within the DoD is not considering lower higher dollar contract actions. However, there is an enormous number of lower dollar contract actions that occur every year.



See Figure 24. A small dollar of savings multiplied by this vast quantity could equal significant savings.

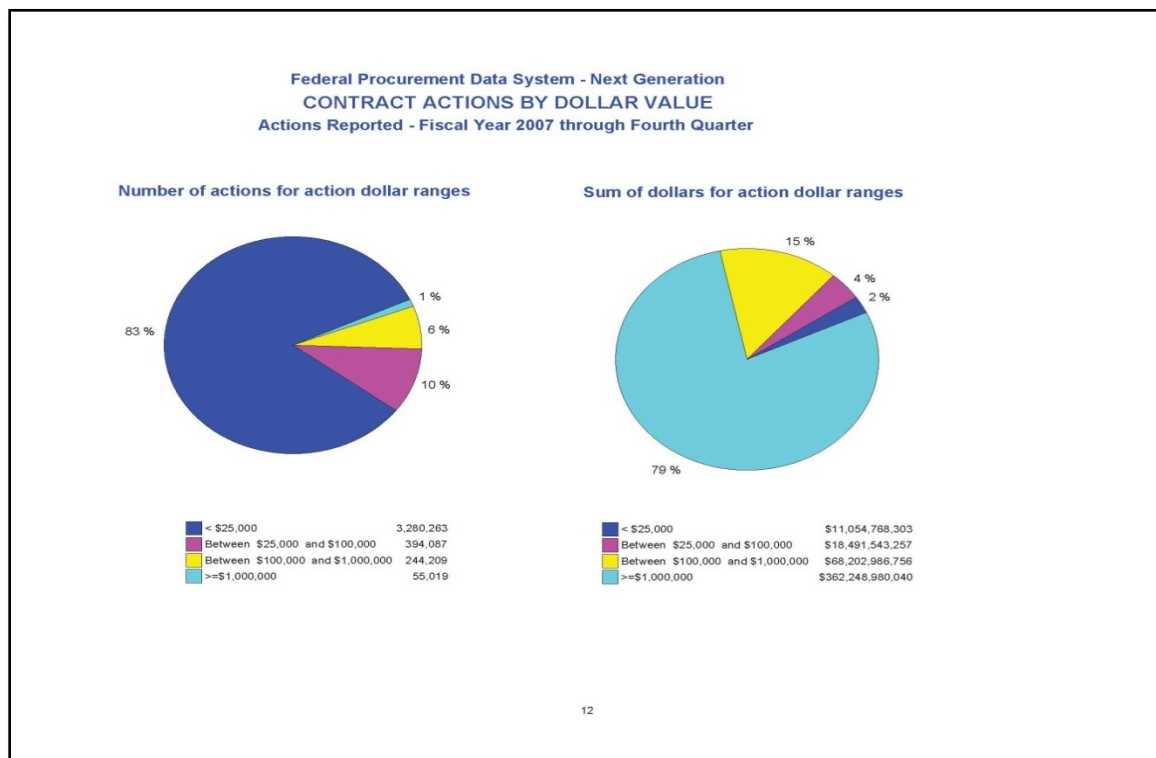


Figure 24. Contract Actions by Dollar Value
(FY2007 FPDS)

It's much easier to see a benefit in price reductions for commercial items and noncommercial items over \$10 million actions. However, if the DoD continues to overlook the lack of appropriate pricing documentation and the obvious lack of effort to determine if prices could be lower at the lower dollar values, what makes it different when the analyst works on higher dollar amounts? Most analysts learn from the small purchases and work their way up into higher buys. The learning is critical at this smaller buy stage because it impacts the future larger dollar experience. "Price ... should always be important," Shay Assad stated at a DAU-sponsored conference on the Better Buying Power initiative. "There may be times when it's difficult to place price as the most important thing, but it ought to be important every single time." Pricing is important. It's time that the DoD takes a stronger look at doing a better job at the pricing table than it's doing today. Assad went on to say, "The reality is, across the board, we've got to do much better." It's easy to say what Assad said about better pricing, but cultural change will make it difficult. A quote from a contract director during our research provides a glimpse of how important price is

not today. The director said, “Our contracting personnel are not motivated to save money or get better prices and especially at year end.”

It might be difficult to gauge cost savings because there is little to no information about the relative cost of a good or service, but there is a market price, a range of acceptable prices, and competition that should yield savings for taxpayers that will grow as “pricing” becomes a more prevalent activity. If nothing else, more efforts to understand the marketplace by buyers can indeed assist in finding more sources, leading to more competition and better prices. To do this, the DoD has to better train and assist our purchasers in becoming buyer experts. Like best practices of commercial buyers in the private sector, the government buyers need to know the marketplace they are working in.

The authors would like to say that they found a magic pill that will make it easy for DoD analysts to pay cheaper prices for goods and services, commercial and noncommercial, but that is not the case. However, if some of the recommendations that the authors offered are put into effect, the expectation is that there will be better prices.

Last of all, the DoD is currently drafting a proposed DFARS rule that implements the requirements in Section 831(a) of the NDAA for FY2013. Section 831 is titled “Evaluating Price Reasonableness for Commercial Items.” See the text of Section 831 in Appendix B. Congress appreciates the pricing problems and is asking for change. The time to make these changes is *now*!

Recommended Changes for Future Research Work

The authors propose to make changes to the contract file checklists, the price reasonableness personal survey questions, and the contract data that the authors created and used for review in the current research for the follow-on project in FY2014. The proposed changes are listed as follows:

Contract File Data

- a) The data collection for this research did not capture significant price analysis data from contracts/purchase orders over the SAT (\$150,000). The authors will attempt to access only data that is over \$150,000. The authors hope to capture sole-source commercial items for spare parts/support equipment, modifications for commercial items over \$500,000 for a deeper analysis of proper pricing and cost-analysis techniques. Several DoDIG/GAO reports identified these two types of purchases where prices appeared to be very unreasonable. The authors also want to look more at the procurement of services rather than supplies. In many of the service contracts the authors reviewed in FY2013, there was no competition and proposed prices were mainly supported by previous purchases and IGCEs. The authors believe that



these comparisons were unreliable and the government most likely paid higher prices than necessary. It will be interesting to see if this trend is used in higher dollar priced services.

- b) If possible, the authors want to review files in as many different DoD agencies as possible in order to reveal different pricing practices, if any, among organizations.
- c) In addition, the authors believe that data from federal contractor files would also provide more data about current price reasonableness practices. The authors attempted to access data from one federal contractor last year. An unnamed contractor approved our access with one stipulation: The researchers were required to sign a nondisclosure agreement (NDA) in order to protect the potential disclosure of the contractor's proprietary information. Naval Postgraduate School legal staff concluded that government employees are covered by the Trade Secrets Act and would not allow the researchers to sign an NDA. The contractor disagreed with the NPS legal decision, and therefore the authors were not given access. In FY2014, the authors will attempt to find a contractor that will allow us to access its contract pricing data. The authors would like to compare pricing documentation in federal prime contractor subcontract files to what federal government contract files contain. The authors expect to find more compliant pricing memos in the contractors' files because their subcontract files are being audited on a regular basis by the Defense Contract Management Agency for pricing documentation. The authors infer that this would point out the need to have more oversight in the government. Also remember that contractors are profit-oriented and motivated to keep costs reduced for themselves.

Contract File Checklists

- a) The authors propose that in future reviews of the contracting files, the researchers would attempt to calculate the potential overpricing amounts on these contracts similar to the DoDIG report, if possible. In order to accomplish that type of review, the researchers must have full access to all of the file data in order to determine if there was a possibility of overpricing. The future researchers will need to perform a more intense analysis of each file in order to pull out specific details needed to project overpricing. In the FY2013 research, the researchers were looking for pricing documentation that supported how the analyst determined the price as fair and reasonable, so the researchers did not make a determination on whether prices were reasonable.
- b) The FY2013 checklist did not require the researchers to review the reasonableness of previous prices. In this research, the authors found that



- “previous prices” were used more than any other price analysis method in making a comparison to the current offered price. In order for this to be an effective analysis method, the analyst must examine and document the reasonableness of the prior price and describe what adjustments to the prior price were necessary to make it comparable to the current price. Questions addressing this type of documentation will be included in a future checklist.
- c) A future questionnaire could look more closely at why full and open competition was not used. These up-front restrictions could significantly contribute to the lack of competitive quotations being used for price reasonableness. This could be based on a low number of quotes, and the potential disparity in pricing, along with other influencing factors. Future research could conduct an analysis of contract file data to determine the effects of restrictions.
 - d) Review the DoDIG contract audit guide on Contract Cost and Price Analysis (Council of the Inspectors General on Integrity and Efficiency, n.d.) to determine if additional questions should be added to a future checklist.
 - e) Additional questions/actions to be added to a future checklist:
 - 1. Was any cost analysis done?
 - 2. Was a quantitative technique used, and if so, is it used properly?
 - 3. What is the source of competition? Competitive, competitive with restrictions, or is there justification for a sole source? Does competitive documentation appear accurate? Basically, is there true adequate price competition?
 - 4. As the researcher, do you believe that the independent government estimates in the file are substantiated?
 - 5. Note the distinction between what type of contract action is being reviewed, i.e., modification, or a purchase order, or a delivery order, or an initial contract.
 - 6. In reviewing task and delivery orders, try to determine if price reasonableness is based on the initial indefinite delivery/indefinite quantity (IDIQ) contract for that order or the order itself.
 - 7. Does the file show a record of a file review internally like a peer review and/or externally like an IG review.
 - 8. Improve upon answers for questions by changing the binary choice of “Yes” and “No” to “Yes,” “No,” and “Don’t know.”



Price Reasonableness Determination Surveys for Contracting Personnel and Supervisors

- a) The authors asked analysts, “What, if any, is your challenge in executing price analysis, determining price reasonableness, and documenting the same?” Their choice of answers was either “Lack of Knowledge,” “Time to Complete,” or “Other (Please Specify).” In general, most survey participants stated “Time to Complete” as their challenge in executing price analysis. The lack of time could be a result of the increase of the contracting workload exceeding the increase in hiring and of training new acquisition workforce personnel, coupled with retiring and near-retirement-age personnel. Future research could survey personnel to better understand the root causes of contracting personnel not having adequate time to conduct proper price analysis.
- b) The survey question “What, if any, is your challenge in executing price analysis, determining price reasonableness, and documenting the same?” provided feedback about what problems the contracting personnel are facing in regard to executing proper price analysis. However, the authors did not ask the participants if they had suggestions for what improvements could be made in regard to pricing (such as management involvement, more training, peer reviews, other reviews). The authors recommend that the participants be invited to provide suggested improvement ideas in future surveys.
- c) Data accumulated from the supervisory and nonsupervisory survey indicated that there are wide disparities between each population’s opinions. The nonsupervisory people felt very confident in their abilities to perform price analysis, yet the supervisors felt less confident in the nonsupervisory personnel. That is, the supervisors felt that the manpower and skill level were the biggest challenge, yet the nonsupervisory personnel felt that they didn’t have enough time to perform the price reasonableness analysis. These two points of view are contradictory. However, there were not enough supervisory participants to legitimately say that there was a good sample, namely, only the opinions of seven people were considered. As a result, the authors definitely want to continue to survey at a bigger scale. The authors also want to consider adding more questions to build upon the limited information revealed.
- d) The survey should ask, “On a general basis, who, if anybody, rightfully reviews the contract files for appropriate documentation?” (such as no one, peer reviewers, contracting officers, IG).



- e) The survey helped the authors to determine what courses the analysts took, but it didn't ask the question about whether the pricing courses helped them in performing price analysis, and so the authors will follow up on asking analysts more specific questions in that regard on the next survey. For example, a question like "What do you think is missing in the current DAU pricing course or could be improved upon to make your contract pricing training more relevant to you?"
- f) Future research efforts could focus on relationships between customers and contracting personnel and the impact that customers' actions, or inactions, have on pricing.
- g) Competition is not obtained as often for services as it is for products in the files reviewed; therefore, competition was used less in determining price reasonableness of services. The DoDIG report cited failure to make efforts to promote adequate competition. The data on services demonstrates that an environment exists in service contracting where adequate competition is difficult to obtain. Future research efforts could focus on what measures are being taken to promote competition within service contracting.
- h) Also, the authors should consider asking future respondents if there are problems in obtaining competitive quotes/proposals. A follow-up question then should ask their opinions about how competition could be improved or why it's hard to obtain competition. The respondents' feedback might reveal some of the reasons why there is less competition.
- i) Based on the authors' research findings, if it is a good sample of what is happening throughout the DoD, it appears that the use of IGCEs as a fundamental method for justifying price reasonableness is significant and very often the IGCEs that the authors found were unsubstantiated. A good question to add to the authors' survey could focus on whether the analyst can determine if an IGCE is reliable.

Future Research

Since IGCEs are so important in price reasonableness determinations, especially for purchasing services, the authors can see a benefit in determining the current status/baseline of IGCEs throughout the DoD. Some of the questions that the authors would suggest are as follows: Which services are requiring IGCEs? Is there a requirement that the IGCE must be substantiated? What training is offered to the customer/technical representative on how to develop an IGCE? Are the contracting personnel determining if the IGCE is reliable and documenting the same before using it for a price comparison basis? Are they effective in determining if the price that the government is paying is reasonable?



References

- Acquisition Advisory Panel. (2007, January). *Report of the Acquisition Advisory Panel to the Office of Federal Procurement Policy and The United States Congress*. Retrieved from http://www.acquisition.gov/comp/aap/24102_GSA.pdf
- Assad, S. D. (2011). *Cost and price analysis of spare parts required before exercising an option*. Retrieved from ACQWeb website: <http://www.acq.osd.mil/dpap/policy/policyvault/usa006459-11-dpap.pdf>
- Battle, J. J., Jr. (2008). *Fair and reasonable price justification: Judgment or market-based*. Retrieved from National Contract Management Association website: http://www.ncmahq.org/files/articles/cm_jan08_p62.pdf
- Carter, A. (2010, July 19). Restoring affordability: Waste, unneeded programs hinder modernization. *Defense News*, 69.
- Cataldo, P. (2013, January 24). *Research response*. Retrieved from <https://www.asigovernment.com/files/documents/Incremental-Funding-Inquiry-and-Response.pdf>
- Competition in Contracting Act (CICA), 41 U.S.C. 253 (1984).
- Council of the Inspectors General on Integrity and Efficiency. (n.d.). *Contract cost and price analysis*. Retrieved from <http://www.ignet.gov/pande/faec/caguidecpa.pdf>
- Defense Acquisition University (DAU). (2012). Commercial item pricing [Course] (CLC 131). Retrieved from http://icatalog.dau.mil/onlinecatalog/courses.aspx?crs_id=320
- Defense federal acquisition regulation supplement (DFARS) and procedures, guidance, and information (PGI). (n.d.). Retrieved from <http://www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html>
- Department of Defense (DoD). (2012a, April). *Market research report guide for improving the tradecraft in service acquisitions*. Retrieved from ACQWeb website: http://www.acq.osd.mil/dpap/cpic/cp/market_research.html
- Department of Defense (DoD). (2012b, June 5). *Guidebook for the acquisition of services*. Retrieved from https://acc.dau.mil/adl/enUS/472568/file/69670/Services%20Acquisition%20Guidebook%206_5_2012.pdf



Department of Defense (DoD). (2012c, June 27). *OSD AT&L (acquisition initiatives) commercial item handbook* (Version 2.0). Retrieved from ACQWeb website: <https://acc.dau.mil/CommunityBrowser.aspx?id=519884>

Department of Defense, Office of the Inspector General (DoDIG). (2001). *Contracting officer determination of price reasonableness when cost or pricing data are not obtained* (Report No. D-2001-129). Retrieved from <http://www.dodig.mil/audit/reports/fy01/01-129pt1.pdf>

Department of Defense, Office of the Inspector General (DoDIG). (2006). *Commercial contract for noncompetitive spare parts with Hamilton Sundstrand Corporation* (Report No. D-2006-122). Retrieved from <http://www.dodig.mil/audit/reports/fy06/06122sum.htm>

Department of Defense, Office of the Inspector General (DoDIG). (2009). *Price reasonableness determinations for contracts* (Report No. D-2009-102). Retrieved from <http://www.dodig.mil/audit/reports/fy09/09-102.pdf>

Department of Defense, Office of the Inspector General (DoDIG). (2010). *Advisory and assistance services contracts in support of the Air Force combat search and rescue helicopter* (Report No. D-2010-054). Retrieved from http://www.dodig.mil/audit/reports/fy10/10-054_redacted.pdf

Department of Defense, Office of the Inspector General (DoDIG). (2011, June 1). *Incomplete contract files for Southwest Asia task orders on the warfighter field operations customer support contract* (DoDIG Report No. D-2011-066). Washington, DC: Author.

Federal Acquisition Institute & the Air Force Institute of Technology. (2012). Contract pricing reference guides. Retrieved from <https://acc.dau.mil/CommunityBrowser.aspx?id=406579&lang=en-US>

Federal Acquisition Regulation (FAR), 48 C.F.R. ch. 1 (2012).

Government Accounting Office (GAO). (2006, July 7). *Contract management: DOD vulnerabilities to contracting fraud, waste, and abuse* (Report No. 06-838R). Retrieved from <http://www.gao.gov/new.items/d06838r.pdf>

Government Executive. (2011, June 3). Analysis: How to cut costs and improve performance. Retrieved from <http://www.govexec.com/oversight/2011/06/analysis-how-to-cut-costs-and-improve-performance/34090/>

Jaggard, M. F. (2005). *Contracting officer determination of price reasonableness when cost or pricing data are not obtained*. Washington, DC: Office of the Assistant Secretary of the Navy (Research, Development, and Acquisition).



- Jolliffe, R. B. (2006). *Report on spare parts procurements from TransDigm, Inc.* (Report No. D-2006-055). Washington, DC: Department of Defense, Office of the Inspector General.
- Nelson, E., Redfern, A. and White, M. (2013). *Price analysis on commercial item purchases within the Department of Defense*, NPS thesis (advised by Janie Maddox and Ralucca Gera)
- Poole, C., & Hoexter, D. (2006). Commercial item contracting in the federal government. *The Advisory* (pp. 1–11).
- Services Acquisition Reform Act (SARA), Pub. L. No. 108-136, 117 Stat. 1392 (2003).
- Thomas, M., Brooks, T., Uzoukwu-Omoike, N. I., & Pittsonberger, J. L. (2010). *Department of Defense contracting workforce competency assessment final report*. Retrieved from Defense Acquisition Portal website:
<https://dap.dau.mil/workforce/Documents/Comp/DoDATLDefenseAcquisitionWorkforceCompetencyModel-Contracting.pdf>
- Tracking the money. (2012). Retrieved from
<http://www.recovery.gov/arra/Transparency/fundingoverview/Pages/fundingbreakdown.aspx>
- Truth in Negotiation Act (TINA), 10 U.S.C. 2306a (1962).
- U.S. Army Training and Doctrine Command (TRADOC). (2000). *Independent government estimate preparation guide*. Retrieved from
[https://acc.dau.mil/adl/en-US/31480/file/5706/IGE%20\(TRADOC\).pdf](https://acc.dau.mil/adl/en-US/31480/file/5706/IGE%20(TRADOC).pdf)
- Weigelt, M. (2011, June 3). Defense official developing “world-class buyers.” *Federal Computer News*. Retrieved from <http://fcw.com/articles/2011/06/02/shay-assad-defense-pricing-role.aspx>



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Appendix A. Contract Pricing Checklists and Survey Questionnaire

Contract Pricing Checklist SAP

Parameters for contract review:

- 1) Contract action must be within the last two (2) years.
- 2) Commercial and Non-Commercial items.
- 3) Actions without certified cost or pricing data.
- 4) Actions over the micro purchase threshold.

1) Price of Contract Action: _____

2) Contract # (1-25): _____

3) Is this a commercial item?

☐ Yes ☐ No

4) Is the definition of what is a commercial item met and documented?

☐ Yes ☐ No

5) Is the contract for a supply?

☐ Yes ☐ No

6) Is the contract for a service?

☐ Yes ☐ No

7) Is the contract for construction?

☐ Yes ☐ No

8) Is there an IGE/IGCE in the file?

☐ Yes ☐ No

If there is an IGE/IGCE:

Is it substantiated (reflecting source of data)?

☐ Yes ☐ No

By catalog, published price list?

☐ Yes ☐ No

Contact with a vendor?

☐ Yes ☐ No

Previous Purchase?

☐ Yes ☐ No

Other?

☐ Yes ☐ No

9) Is there a Market Research Report?

☐ Yes ☐ No

If there is a Market Research Report:



Does Market Research Report address any type of pricing data collected?	☐ Yes	☐ No
10) Was Full and Open Competition used to obtain quote/prices?	☐ Yes	☐ No
If not, is there a justification for other than full and open competition?	☐ Yes	☐ No
11) Were factors other than price or price related factors used in selecting the vendor?	☐ Yes	☐ No
a) Was price still a substantial factor in award?	☐ Yes	☐ No
b) If the winning offer was not the lowest bid, is there a statement of price reasonableness determination for the winning offeror?	☐ Yes	☐ No
12) What Contract procedure was used?		
FAR 13 Simplified Acquisition Procedures	☐ Yes	☐ No
FAR 14 Sealed Bidding	☐ Yes	☐ No
FAR 15 Negotiations	☐ Yes	☐ No
FAR 13 and FAR 15 Combined	☐ Yes	☐ No
13) How many quotes were received?	☐ 1 ☐ 2 ☐ 3 or more	
14) Did the price/quote exceed the TINA threshold?	☐ Yes	☐ No
If yes, which exception was used?		
Adequate price competition	☐ Yes	☐ No
Price set by law	☐ Yes	☐ No
Commercial Item	☐ Yes	☐ No
Waiver	☐ Yes	☐ No
Commercial item modification	☐ Yes	☐ No



*Note- If yes has been answered to #14 please answer #15. Otherwise, move on to question #16.

15) Does the chosen exception meet the exception standards of

FAR 15.403-1(c)/PGI 215.403-1(c)(3 &4) with applicable documentation?

☐ Yes ☐ No

16) Is there a memorandum for price reasonableness or other document

justifying the reasonableness of price?

☐ Yes ☐ No

17) What was the justification for price reasonableness based?

a) Competitive quotes or offers (FAR 13.106-3(a)(1))

☐ Yes ☐ No

1) If Yes, were two or more quotes/offers received?

☐ Yes ☐ No

b) Market research (FAR 13.106-3(a)(2)(i))

☐ Yes ☐ No

1) If yes, was a statement of price reasonableness based on the
results of the market research included?

☐ Yes ☐ No

c) Comparison with prices found reasonable on previous purchase

(FAR 13.106-3(a)(2)(ii))

☐ Yes ☐ No

1) If yes, was a statement of price reasonableness based on the

Comparison of the proposed price with prices found reasonable
on previous purchases?

☐ Yes ☐ No

2) Was a reference to the previous purchase included?

☐ Yes ☐ No

d) Current Price List, Catalog, or Advertisement (FAR 12.106-3(a)(2)(iii))

☐ Yes ☐ No



1) If yes, was a statement of price reasonableness based on the

comparison of the proposed price with current price lists, catalogs,

or advertisements?

☐ Yes ☐ No

2) Was a reference to the current price list, catalog, or advertisement

with publication date included?

☐ Yes ☐ No

e) Comparison with similar items (FAR 13.106-3(a)(2)(iv))

☐ Yes ☐ No

1) If yes, was a statement of price reasonableness based on the

Comparison of the proposed price with prices or similar items in a

related industry included?

☐ Yes ☐ No

f) The contracting officer's personal knowledge of the item being purchased

(FAR13.106-3(a)(2)(v))

☐ Yes ☐ No

1) If yes, was a statement of price reasonableness based on the

contracting officer's personal knowledge of the item being purchased

included?

☐ Yes ☐ No

g) Comparison to an independent government estimate FAR 13.106-3(a)(2)(vi)

☐ Yes ☐ No

1) If yes, was a statement of price reasonableness based on

comparison of the proposed price to an independent government



estimate included?

☐ Yes ☐ No

h) Any other reasonable basis FAR 13.106-3(a)(2)(vii)

☐ Yes ☐ No

1) If yes, was a statement of price reasonableness based on this

Determination included?

☐ Yes ☐ No

18) Total price evaluation was inclusive of transportation charges from the shipping

point of the supplier to the delivery destination? (FAR 13.106-2(a)(1)(ii))

☐ Yes ☐ No ☐ N/A

Contract Pricing Checklist

Parameters for contract review:

- 1) Contract action must be within the last two (2) years.
 - 2) Commercial and Non-Commercial items.
 - 3) Actions without certified cost or pricing data.
 - 4) Actions over the micro purchase threshold.
-

1) Price of Contract Action:

2) Contract # (1-25):

3) Is this a commercial item?

☐ Yes ☐ No

4) Is the definition of what is a commercial item met and documented?

☐ Yes ☐ No

5) Is the contract for a supply?

☐ Yes ☐ No

6) Is the contract for a service?

☐ Yes ☐ No



7) Is the contract for construction?	☐ Yes	☐ No
8) Is there an IGE/IGCE in the file?	☐ Yes	☐ No
If there is an IGE/IGCE:		
Is it substantiated (reflecting source of data)?	☐ Yes	☐ No
By catalog, published price list?	☐ Yes	☐ No
Contact with a vendor?	☐ Yes	☐ No
Previous Purchase?	☐ Yes	☐ No
Other?	☐ Yes	☐ No
9) Is there a Market Research Report?	☐ Yes	☐ No
If there is a Market Research Report:		
Does Market Research Report address any type of pricing data collected?	☐ Yes	☐ No
10) Was Full and Open Competition used to obtain quote/prices?	☐ Yes	☐ No
If not, is there a justification for other than full and open competition?	☐ Yes	☐ No
11) Were factors other than price or price related factors used in selecting the vendor?	☐ Yes	☐ No
a) Was price still a substantial factor in award?	☐ Yes	☐ No
b) If the winning offer was not the lowest bid, is there a statement of price reasonableness determination for the winning offeror?	☐ Yes	☐ No
12) What Contract procedure was used?		
FAR 13 Simplified Acquisition Procedures	☐ Yes	☐ No
FAR 14 Sealed Bidding	☐ Yes	☐ No
FAR 15 Negotiations	☐ Yes	☐ No



FAR 13 and FAR 15 Combined

☐ Yes ☐ No

13) How many quotes were received?

☐ 1 ☐ 2 ☐ 3 or

14) Did the price/quote exceed the TINA threshold?

☐ Yes ☐ No

If yes, which exception was used?

Adequate price competition

☐ Yes ☐ No

Price set by law

☐ Yes ☐ No

Commercial Item

☐ Yes ☐ No

Waiver

☐ Yes ☐ No

Commercial item modification

☐ Yes ☐ No

*Note- If yes has been answered to #14 please answer #15. Otherwise, move on to question #16.

15) Does the chosen exception meet the exception standards of

FAR 15.403-1(c)/PGI 215.403-1(c)(3 &4) with applicable documentation?

☐ Yes ☐ No

16) Is there a memorandum for price reasonableness or other document

justifying the reasonableness of price?

☐ Yes ☐ No

What was the justification for price reasonableness based?

(FAR 15.404-1(a)(b) Price Analysis Techniques used for determining

a fair and reasonable price)

☐ Yes ☐ No



Comparison of Proposed Prices

Answer questions 17-18 only if Comparison of Proposed Prices received in response to the solicitation were used in determining price reasonableness and documented in the pricing memorandum on file.

*Note: Using Proposed Prices (FAR 15.403-11(1)). Any proposed price used as a base for prices analysis must meet the general requirements.

- The price must be submitted by a firm competing independently for contract award.
- The price must be part of an offer that meets Government requirements. (Technically Acceptable)
- Award must be made to the offeror whose proposal represents the best value to the Government.
- For SEALED BIDDING ONLY –Were offers responsive to the Govt. requirement?

17) Was a price from an offeror whose proposal was technically unacceptable used

for price comparison basis?

☐ Yes ☐ No

18) Was a price from an offeror whose proposal was determined to be non-responsible

used for price comparison basis in the pricing memorandum?

☐ Yes ☐ No

*Please proceed to question #30 when finished with questions #17-18.

Comparison of Historical Prices

Answer questions 19-21 only if comparison of the proposed prices to historical prices paid, whether by the Government or other than the Government, for the same or similar items were used in determining price reasonableness.

19) Comparison of the proposed prices to previous prices paid, whether by the



Government or other than the Government, for the same or similar items.

☐ Yes ☐ No

20) Is the prior price a valid basis for comparison?-all three of the following

questions must be answered no to qualify as properly done.

☐ Yes ☐ No

a.) Has there been a significant time lapse between the last acquisition used as

the basis for comparison and the current offered price on file?

☐ Yes ☐ No

b) Were the terms and conditions of the previous purchase significantly different and

no adjustment was made by the analyst to compensate for the differences?

E.g. urgency

☐ Yes ☐ No

c) is the reasonableness determination of the prior price uncertain?

☐ Yes ☐ No

21) Were adjustments made and documented to make the previous pricing

data comparable to the current offered price? i.e. Index Data Sources, quantity,

terms and conditions, etc...

☐ Yes ☐ No

*Please proceed to question #30 when finished with questions #19-21

Use of Parametric Estimating Methods

Answer questions 22-23 only if parametric estimating methods/application of rough yardsticks (such as dollars per pound or per horsepower, or other units) were used for price reasonableness determination of the offered price.

*Note: For INFO to checklist data collector

Determine whether both buyers and sellers agree on the validity of a particular relationship/yardstick and the reasonableness of values used in estimating. Sellers may use a relationship/yardstick that produces an estimate higher than that normally accepted by buyers.



22) Is there documentation that supports a price comparison to the offered price? ☐ Yes ☐ No

23) Is there documentation that explains the reliability of the estimating method used? ☐ Yes ☐ No

a) Has the CER cost estimating relationship been widely accepted in the market place? ☐ Yes ☐ No

b) Does the CER produce reasonable results? ☐ Yes ☐ No

*Please proceed to question #30 when finished with questions #22-23.

Comparison of Competitive Published Price Lists

Answer questions 24-25 only if Comparison with competitive published price lists, published market prices of commodities, similar indexes, and discount or rebate arrangements were used to determine price reasonableness.

*Note: Inclusion of a price in a price list, catalog, or advertisement does not, in and of itself, establish the fairness and reasonableness of the price.

Please proceed to question #30 when finished with question #25

24) Includes a statement of price reasonableness based on the comparison of the proposed price with current price lists, catalogs, or advertisements. ☐ Yes ☐ No

25) Includes reference to current price list, catalog, or advertisement with publication date. ☐ Yes ☐ No

Comparison of proposed prices with independent Government cost estimates.



Answer questions #26-27 only if Comparison Includes a statement of price reasonableness based on comparison of the proposed price to an independent government estimate was used to determine price reasonableness.

26) Was a statement included of price reasonableness based on comparison of the

proposed price to an independent government estimate?

☐ Yes ☐ No

27) Was a statement included that indicates the reliability of the IGCE?*

☐ Yes ☐ No

*Note: the statement should answer the following questions:

- How was the estimate developed made?
- What assumptions were made?
- Were any differences in the comparison work statement accounted for?
- What information and tools were used?
- Where was the information obtained?

*Please proceed to question #30 when finished with question #27.

Comparison of Prices Obtained Through Market Research

Answer question #26 only if comparison of proposed prices with prices obtained through market research for the same or similar items was used for price reasonableness determination.

28) Is there documentation that supports a price comparison to the offered price?

☐ Yes ☐ No

*Please proceed to question #30 when finished with question #28.

Analysis of Data Other Than Certified Cost or Pricing Data

Answer question 29 if analysis of data other than certified cost or pricing data provided by the offeror was used to determine price reasonableness.

29) Did offeror provide data upon request?

☐ Yes ☐ No



If no, is there documentation in the file how it was resolved?

☐ Yes ☐ No

30) Is this a sole source item which is determined to be Commercial?

(PGI 215. 402-2 & 3)

☐ Yes ☐ No

a) If yes, was there sufficient data to determine price reasonableness

in i-vi above?

☐ Yes ☐ No

1) -- If No, was the offeror required to provide whatever data the

contracting officer needs in order to determine fair and reasonable prices?

☐ Yes ☐ No

2) If Yes, did this include commercial sales data of items sold in similar

quantities and, if such data is insufficient, data other than cost or pricing

data to support the proposed price.*

☐ Yes ☐ No

Note *Some form of prior non-governmental sales data or the fact that the item was sold, leased, licensed, or offered for sale (either the specific product or service or the product or service from which the item evolved) must be obtained. (PGI 215.403-1 (c)(3)(A)(2)

31) Were any quantitative methods used by the analyst on the pricing data in

determining price reasonableness? Reference Contract Pricing Guides Volume III,

Quantitative Techniques

☐ Yes ☐ No

a) If yes, which ones? Check all that apply.



☐ Cost Volume Analysis ☐ Cost Estimating

☐ Indexing

☐ Regression

☐ Improvement Curve ☐ Other _____

Price Reasonableness Determination Survey

Demographic Information

1. Years of acquisition experience?

☐ < 1 year 1-

☐ 3 years 3-

☐ 5 years

☐ > 5 years

2. Military/Civilian status

☒ Active Duty Military

☐ DoD Civilian

☐ Other (please specify)

3. What is the job title for your position?

☐ Contract Specialist

☐ Contract Administrator

☐ Price Analyst

☐ Quality Assurance Specialist

☐ Other (please specify)

4. Are you a supervisor?



-
- ☐ Yes
☐ No
-

5. Please identify the component you currently work for:

- ☐ Air Force
☐ Army
☐ Coast Guard

- ☐ Marine Corp
☐ Navy
☐ Other (please specify)
-



6. Please indicate your current certification level:

- ☐ DAWAI- Level 1
- ☐ DAWAI- Level 2
- ☐ DAWAI- Level 3
- ☐ FAC-C Level 1
- ☐ FAC-C Level 2

- ☐ FAC-C Level 3
 - ☐ Agency specific contracting certification
 - ☐ Agency specific project management certification
 - ☐ Other (please specify)
-

Acquisition Information

7. Please identify the types of acquisitions you handle on a daily basis (select all that apply):

- ☐ Supplies
- ☐ Services
- ☐ Construction

8. Please identify the item types that you handle on a daily basis (select all that apply):

- ☐ Commercial Non-
- ☐ commercial

9. Please identify the types of contracts you handle on a daily basis (select all that apply):

- ☐ Fixed Price
- ☐ Cost Reimbursement
- ☐ Time & Materials

Pricing Information

*Note: Please utilize the Frequency, Criticality, and Proficiency ratings as discussed previously.

10. Do you perform price analysis?

- ☐ Yes
- ☐ No



11. Are you documenting market research prior to a new acquisition?

Frequency: Select Criticality: Select Proficiency: Select

a. Do you identify current market pricing in the report?

- ☐ Yes
- ☐ No
- ☐ Sometimes

12. Of the following price analysis techniques listed below, please identify the frequency used, criticality in accomplishing your acquisition, and your proficiency of each technique:

a. Comparison of prices received in response to solicitation

Frequency: Select Criticality: Select Proficiency: Select

b. Comparison of the proposed prices to historical prices paid:

Frequency: Select Criticality: Select Proficiency: Select

c. Use of parametric estimating methods/application of rough yardsticks

Frequency: Select Criticality: Select Proficiency: Select

d. Comparison with competitive published price lists

Frequency: Select Criticality: Select Proficiency: Select

e. Comparison to the Independent Government Estimate

Frequency: Select Criticality: Select Proficiency: Select

13. Have you ever requested data other than cost or pricing data from an offeror to determine price reasonableness?

- ☐ Yes
- ☐ No



14. Which exceptions to cost or pricing data do you most frequently use when the acquisition meets the \$700k threshold for cost or pricing data?

- ☐ APC
- ☐ Prices set by law
- ☐ Commercial
- ☐ Waiver
- ☐ Commercial Modification

☐ None of my acquisitions meet the Cost or Price



15. Do you have the ability to execute fundamental quantitative methods, i.e. price indexing, rough yardsticks, cost-volume pricing and/or pricing trends (regression analysis) in performing price analysis and determining price reasonableness?

Frequency: Select Criticality: Select Proficiency: Select

16. Do you have the ability to execute a pricing memo defending how you determined the price as fair and reasonable?

Frequency: Select Criticality: Select Proficiency: Select

17. How often does someone review your pricing memo?

Frequency: Select

18. Do you believe you are adequately trained in price analysis methods/techniques?

Frequency: Select Criticality: Select Proficiency: Select

19. Does your organization offer you any in house training on price analysis methods/techniques?

☐ Yes
☐ No

20a. Have you attended DAU training on contract pricing?

☐ Yes
☐ No

b. If so, do you believe your training has improved your ability to execute price analysis in determining price reasonableness and properly documenting the same?

☐ Yes
☐ No
☐ Not Applicable



22. On what time of actions is it mandatory for you to perform price analysis? (Check all that apply)

- ☐ Simplified acquisitions under the simplified acquisition threshold
- ☐ Commercial Item purchases
- ☐ When there is adequate price
- ☐ competition when certified cost or pricing data is required Frequency



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Appendix B. National Defense Authorization Act for Fiscal Year 2013, Section 831

SEC. 831. GUIDANCE AND TRAINING RELATED TO EVALUATING REASONABLENESS OF PRICE.

(a) Guidance- Not later than 180 days after the date of the enactment of this Act, the Under Secretary of Defense for Acquisition, Technology, and Logistics shall issue guidance on the use of the authority provided by sections 2306a(d) and 2379 of title 10, United States Code. The guidance shall--

(1) include standards for determining whether information on the prices at which the same or similar items have previously been sold is adequate for evaluating the reasonableness of price;

(2) include standards for determining the extent of uncertified cost information that should be required in cases in which price information is not adequate for evaluating the reasonableness of price;

(3) ensure that in cases in which such uncertified cost information is required, the information shall be provided in the form in which it is regularly maintained by the offeror in its business operations; and

(4) provide that no additional cost information may be required by the Department of Defense in any case in which there are sufficient non-Government sales to establish reasonableness of price.

(b) Training and Expertise- Not later than 270 days after the date of the enactment of this Act, the Under Secretary of Defense for Acquisition, Technology, and Logistics shall develop and begin implementation of a plan of action to--

(1) train the acquisition workforce on the use of the authority provided by sections 2306a(d) and 2379 of title 10, United States Code, in evaluating reasonableness of price in procurements of commercial items; and

(2) develop a cadre of experts within the Department of Defense to provide expert advice to the acquisition workforce in the use of the authority provided by such sections in accordance with the guidance issued pursuant to subsection (a).

(c) Documentation Requirements- The Under Secretary of Defense for Acquisition, Technology, and Logistics shall ensure that requests for uncertified cost information for the purposes of evaluating reasonableness of price are sufficiently documented.



The Under Secretary shall require that the contract file include, at a minimum, the following:

- (1) A justification of the need for additional cost information.
- (2) A copy of any request from the Department of Defense to a contractor for additional cost information.
- (3) Any response received from the contractor to the request, including any rationale or justification provided by the contractor for a failure to provide the requested information.

(d) Comptroller General Review and Report-

(1) REVIEW REQUIREMENT- The Comptroller General of the United States shall conduct a review of data collected pursuant to sections 2306a(d) and 2379 of title 10, United States Code, during the two-year period beginning on the date of the enactment of this Act.

(2) REPORT REQUIREMENT- Not later than 180 days after the end of the two-year period referred to in paragraph (1), the Comptroller General shall submit to the congressional defense committees a report on--

(A) the extent to which the Department of Defense needed access to additional cost information pursuant to sections 2306a(d) and 2379 of title 10, United States Code, during such two-year period in order to determine price reasonableness;

(B) the extent to which acquisition officials of the Department of Defense complied with the guidance issued pursuant to subsection (a) during such two-year period;

(C) the extent to which the Department of Defense needed access to additional cost information during such two-year period to determine reasonableness of price, but was not provided such information by the contractor on request; and

(D) recommendations for improving evaluations of reasonableness of price by Department of Defense acquisition professionals, including recommendations for any amendments to law, regulations, or guidance.





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