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A STUDY OF CERTIFIED COST OR PRICING DATA

June 2019

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A STUDY OF CERTIFIED COST OR PRICING DATA

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ABSTRACT

This study provides insights into 10 U.S. Code 236a—Cost or Pricing Data: Truth in Negotiations (TiN), formally known as the Truth in Negotiations Act (TINA). The landscape surrounding the requirement to submit certified cost or pricing data (CPD) has continually changed, which led us to question the applicability and benefit the government still receives from CPD. Exceptions to CPD led us to hypothesize that there is a decreasing scope, or need, for CPD on future acquisitions. This study seeks to determine if the government still benefits from CPD as originally intended.

This study analyzed contract actions above the applicable CPD thresholds over the past five years to examine the scope, trends, and impact of the requirement. We completed this through analyzing data, collecting historical information, and reviewing changes to the law to determine the actual impacts. This approach measured the benefit the government receives in requiring CPD. We also identified concentrations of industries, agencies, and contractors most impacted by CPD.

We performed a comparative analysis to discover that, while growing exceptions to CPD led us to believe there are fewer actions and dollars obligated requiring CPD, our findings uncovered the opposite result. In the past five years, the number of contract actions and the sum of obligated dollars requiring CPD have continued to increase, which confirms that the government still has a need and still benefits from CPD.

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LIST OF ACRONYMS AND ABBREVIATION

AIA	Aerospace Industry Association
ASBCA	Armed Services Board of Contract Appeals
ASPR	Armed Services Procurement Regulation
BAA	Broad Agency Announcement
BOA	Blanket Ordering Agreement
CAM	Contract Audit Manual
CAO	Chief Acquisition Officers
CAS	Cost Accounting Standards
CO	Contracting Officer
CPD	Certified Cost or Pricing Data
CPI	Consumer Price Index
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DFARS	Defense Federal Acquisition Regulation Supplement
DHRA	Defense Human Resources Agency
DMA	Defense Media Agency
DMEA	Defense Microelectronics Agency
DoD	Department of Defense
DoDIG	Department of Defense Inspector General
EELV	Evolved Expendable Launch Vehicle
FAPD	Federal Acquisition Policy Division
FAPIS	Federal Awardee Performance and Integrity Information System
FAR	Federal Acquisition Regulation
FARA	Federal Acquisition Reform Act of 1995
FASA	Federal Acquisition Streamlining Act of 1994
FOUO	For Official Use Only
FPDS-NG	Federal Procurement Data System - Next Generation
GAO	Government Accountability Office
GS	General Schedule
GSA	U.S. General Services Administration
HCA	Head of the Contracting Agency
IDIQ	Indefinite-Delivery, Indefinite-Quantity
IDV	Indefinite-Delivery Vehicle

IRB	Institutional Review Board
NAICS	North American Industry Classification System
NASA	National Aeronautical and Space Administration
NDAA	National Defense Authorization Act
NDI	Non-Developmental Item
NDIA	National Defense Industry Associations
NPS	Naval Postgraduate School
PCO	Procuring Contracting Officer
PGI	Procedures, Guidance, and Information
POGO	Project on Government Oversight
PSC	Product and Service Codes
SARA	Services Acquisition Reform Act of 2003
SAT	Simplified Acquisition Threshold
SBIR	Small Business Innovation Research
STTR	Small Business Technology Transfer
TiN	Truth in Negotiations
TINA	Truth in Negotiations Act
USAF	United States Air Force
U.S.C.	United States Code

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I. INTRODUCTION

As the landscape surrounding the requirement to submit certified cost or pricing data (CPD) has continually changed, it may lead some to question the applicability and benefit the government still receives from this requirement. Exceptions to the requirement have been added to the point one could hypothesize that there is a decreasing scope, or even need, for the requirements of CPD on future acquisitions.

To answer this question, we analyze contract actions above the applicable CPD thresholds to examine the scope, trends, and impact of the requirement. This approach was chosen to measure the benefit the government receives in requiring CPD. We performed a comparative analysis to discover that, while growing exceptions to the requirement would lead us to believe there are less contract actions and dollars obligated requiring CPD, our findings uncovered the opposite result. In the past five years, both the number of contract actions and the sum of obligated dollars requiring CPD have continued to increase. Although this would lead us to believe there was no impact, our analysis identifies that the rise in threshold did alleviate requirements for CPD, and there would have been an even larger increase had the thresholds remain unchanged. This ultimately confirms that the government still has a need for and therefore still benefits from this requirement.

This introductory chapter first discusses the background for obtaining fair and reasonable prices in U.S. federal government contracting, which includes a brief history of 10 U.S. Code §2306a, Cost or Pricing Data, Truth in Negotiations (TiN), previously known as the Truth in Negotiations Act (TINA). The importance of CPD along with its evolution over the years follows. Second, our purpose in writing this paper is to determine if the government still benefits from CPD data. Third, an introduction of research questions is presented, which we answer through our study. Last, we cover the scope of our research, followed by a chapter summary.

A. BACKGROUND

TINA was believed to “level the negotiation playing field,” giving the government and contractor “equal access to pricing information” (Maddox, 2013, p. 22). Having access

to current, accurate and complete pricing information puts all parties on equal grounds during negotiations and can improve the government's bargaining positions during contract negotiations, ultimately, protecting the government's interest. The TINA name, requirements, and applicability have changed over time since its enactment into Public Law 87-633 in 1962 (Maddox, 2013), however, we believe the TINA intentions remain the same. For the sake of this paper we refer to 10 U.S. Code §2306a Cost or Pricing Data: Truth in Negotiations, as CPD.

1. Fair and Reasonable

CPD is implemented under Federal Acquisition Regulation (FAR) Part 15 Contracting by Negotiation, section 402-Pricing Policy. When applicable under FAR 15.403-4(b)(2), the contractor is simply attesting and "certifying that to the best of its knowledge and belief, the cost or pricing data were accurate, complete, and current" (Requiring Certified Cost or Pricing Data, 2019). The CPD is fully defined in its entirety in the context of FAR 2.101 (Definitions, 2019). As stated in FAR 1.602(a), only "contracting officers have authority to enter into, administer, or terminate contracts and make related determinations and findings" (Contracting Officers, 2019). FAR 15.402(a) requires Contracting Officers (COs) to "purchase supplies and services from responsible sources at fair and reasonable prices" (Pricing Policy, 2019).

a. Competition

As stated in FAR 15.404-1(b)(3), "the first two techniques at 15.4041(b)(2) are the preferred techniques" (Proposal Analysis Techniques, 2019), in establishing fair and reasonable prices. Competition promotes the best value for products or services since it helps to establish a benchmark or baseline for the price to acquire the service or good. Not having a valid baseline hinders the COs ability to conduct a price analysis to determine fair and reasonableness.

Under FAR 15.403-1(c)(1)(i), competition exists "if two or more responsible offerors, competing independently, submit priced offers that satisfy the Government's expressed requirement" (Prohibition on Obtaining Certified Cost or Pricing Data, 2019).

b. Lack of Competition

Without the presence of competition, COs must follow the Contracting by Negotiation Rules set forth in FAR part 15. In order to establish price reasonableness, COs shall function under what is stated in FAR 15.402(a) and shall:

- FAR 15.402(a)(1): 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
- FAR 15.402(a)(2): When certified cost or pricing data are not required by 15.403-4, shall 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:
- FAR 15.402(a)(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. (Pricing Policy, 2019)

However as stated in Defense Federal Acquisition Regulation Supplement (DFARS) Procedures, Guidance and Information (PGI) 215.403-1,

if an exception to certified cost or pricing data applies, the contracting officer is still required to determine price reasonableness. In order to make this determination, the contracting officer may require data other than certified cost or pricing data, including data related to prices and cost data that would otherwise be defined as certified cost or pricing data if certified. (Prohibition on obtaining certified cost or pricing data, 2019)

2. Certified Cost or Pricing Data: Truth in Negotiation

a. History

Janie Maddox discusses the history of TINA and its 50th anniversary in her article titled, “TINA Turns 50!” dated April 2013. To summarize Maddox’s article, in 1950, President Harry S. Truman “issued an emergency proclamation to allow an exception to formal advertised procurements” that drastically increased the “dollar value and the number of negotiated contracts awarded by the Department of Defense (DoD)” (Maddox, 2013, p. 22). With more negotiated contracts underway and the absence of competition, Congress became concerned that the federal government was not receiving fair and reasonable prices when acquiring products or services (Maddox, 2013). This became increasingly important since no requirement for contractors to disclose cost or pricing information during contract negotiations existed (Maddox, 2013).

The Government Accountability Office (GAO) verified Congress’s concerns by uncovering “overpricing and excessive profits by government contractors” (Maddox 2013, p. 23). At that time, there was no legal basis for recovering egregious overpricing due to the government lacking information, and the “GAO recommended “voluntary” refunds from contractors when overpricing occurred” (Maddox, 2013, p. 23). As one could imagine, and Maddox confirms, the voluntary refund from government contractors was fairly limited. Maddox points out in the GAO blue book that,

the primary cause of the inequality and resultant overpricing of contractors was the contractor’s failure to provide accurate, current, or complete cost data. It was contended by the GAO that the government’s negotiator would be in a better position to establish an equitable price if contractor cost data were made available. (Maddox, 2013, p. 24)

By 1951, Maddox goes on to discuss how the comptroller general was allowed access to the contractor records through a change to the Armed Services Procurement Act (ASPA) (Maddox, 2013). Afterwards, the U.S. Air Force (USAF) began to require contractor certified cost data (Maddox, 2013). In 1959, DoD followed USAF’s lead with the Armed Services Procurement Regulation (ASPR) revision requiring certification of

current accurate and complete cost data submitted by its contractors unless an exemption applied (Maddox, 2013).

Contractor disclosure of cost data showed that some contractors were not following the ASPR certification requirement, resulting to the passing of another ASPR revision in 1961 (Maddox, 2013). The ASPR revision in 1961 authorized a contract price reduction if the government awarded a contract with over pricing “due to defective cost or pricing data” (Maddox, 2013, p. 24). The ASPR evolved into Public Law 87-633 and what we know as TINA by 1962, expanding its applicability to DoD, Cost Guard and National Aeronautical and Space Administration (NASA) (Maddox, 2013).

b. What TINA Achieved per FAR 15.403

Maddox’s article stated the following attributes from the enactment of TINA:

- Describes the responsibilities of the CO in obtaining “cost of pricing data,” whether or not it was certified;
- Delineates exemptions to the requirement;
- Requires the CO to perform a cost analysis on “cost or pricing data” to evaluate the reasonableness of individual cost elements and perform price analysis to verify that the overall price offered is fair and reasonable;
- Describes the principle elements of documented negotiated agreement by the contracting officer;
- A downward recovery of overpayments (cost and profit) and interest (as of 1985), and
- Interest that now compounds (as of 2011). (Maddox, 2013, p. 24)

c. Defective Pricing

According to Maddox, Calhoon, and Schwellenbach’s breakout session #B10 at the 2014 World Congress, “In the mid-1980s the Government started treating defective pricing as an indication of criminal fraud” (p. 3). The same session discussed how, “Defective pricing occurs when a contractor does not submit or disclose to the Government certified cost or pricing data that is accurate, complete, and current prior to reaching a price agreement” (p. 20). This defect in pricing is normally discovered in Firm Fixed Price type

contracts during post award when reviewing contractor data (Maddox, Calhoon, & Schwellenbach, 2014).

d. Changes to the TINA

Some of the major changes for TINA were for the dollar threshold be adjusted for inflation every five years, that it be calculated in constant dollars, and that it be tied to the Consumer Price Index (CPI) (Ronald Reagan National Defense Authorization Act for Fiscal Year 2005). Table 1 displays the changes to the TINA thresholds from inception to date.

Table 1. TINA Thresholds Increases over Time.
Adapted from Maddox (2013).

Dollar Value	Contracts Awarded
\$100,000	prior to December 1, 1990
\$500,000	on or after December 1, 1990
\$550,000	on or after October 11, 2000
\$650,000	on or after September 28, 2006
\$700,000	on or after October 1, 2010
\$750,000	on or after October 1, 2015
\$2,000,000	on or after July 1, 2018

e. TINA Exemptions (FAR 15.403-1(c))

While the laws and regulations requiring CPD are well defined, so too are waivers and exceptions where CPD is not required, or even prohibited. The current exemptions to CPD under FAR 15.403-1(c) are stated in the following list:

- FAR 15.403(c)(1)(i): Adequate price competition. A price is based on adequate price competition if - Two or more responsible offerors, competing independently, submit priced offers that satisfy the Government's expressed requirement
- FAR 15.403(c)(2): Prices set by law or regulation. Pronouncements in the form of periodic rulings, reviews, or similar actions of a governmental body, or embodied in the laws, are sufficient to set a price.

- FAR 15.403(c)(3)(i): Commercial items. (i) Any acquisition of an item that the contracting officer determines meets the commercial item definition in 2.101, or any modification, as defined in paragraph (3)(i) of that definition, that does not change the item from a commercial item to a noncommercial item, is exempt from the requirement for certified cost or pricing data.
- FAR 15.403(c)(4): Waivers. The head of the contracting activity (HCA) may, without power of delegation, waive the requirement for submission of certified cost or pricing data in exceptional cases.
- FAR 15.403-1 (b)(5): When modifying a contract or subcontract for commercial items. Deviation per DAR Tracking Number: 2018-O0009, 15.403(1)(b), Contracts or subcontracts valued at less than \$7.5 million awarded to small business concern or nontraditional defense contractor pursuant to- (1) A technical, merit-based selection procedure, such as a broad agency announcement (see FAR 35.016(b)(2));(2) The Small Business Innovation Research Program; or (3) The Small Business Technology Transfer program. (Prohibition on Obtaining Certified Cost or Pricing Data, 2019)

3. Statutes

The three federal statutes listed below were implemented to achieve greater efficiencies in federal procurement, and move government procurement “closer to industry standards” (Yoder, 2004, p. 2). As most “contractors refused to conduct business in the Federal arena” due to excessive laws and regulations, the statutes all aimed to focus on creating commercial exceptions to remove burdensome requirements and align commercial contracting to something more similar to the public marketplace, thereby increasing competition and increasing the chances of obtaining fair and reasonable prices (Yoder, 2004, p. 6).

a. Federal Acquisition Streamlining Act of 1994

The Federal Acquisition Streamlining Act (FASA) of 1994 was established to streamline Federal Acquisition Laws, eliminating prior complex and burdensome regulations that caused bottlenecks, reduced competition and premium prices passed back to the government (E. C. Yoder, PowerPoint slides, November 1, 2004). The major results stemming from the act are included in Table 2.

Table 2. FASA 2004 Highlights. Source: Yoder (2004, p. 9).

Created preference for “commercial item” acquisition.
Provided for utilization of “less intrusive” data sources in determining “fair and reasonable” pursuant to contract award, eliminated TINA requirements.
Created a “broad” definition of “commercial item” to allow for maximum applicability of the legislative and regulatory relief under the provision.
Created “best practice” business processes similar to commercial business-to-business standards.
Maximized reliance on industry and market forces to establish “fair and reasonable” pricing.

b. Federal Acquisition Reform Act of 1995

Federal Acquisition Reform Act (FARA) of 1995’s purpose is to draw in as many vendors and competition as possible by creating a very broad definition of commercial items (Table 3).

Table 3. FARA 1995 Highlights. Source: Yoder (2004, p. 9).

Expanded definition of “commercial item” and its applicability to include: • items which have evolved from commercial items • items that are commercial with modifications to meet Government unique requirements • combinations of commercial items and services for Government use • non-developmental items (NDI – items originally developed and/or sourced by a Government agency) • services at catalog or market prices
Prohibited the use of certified cost and pricing data under TINA for commercial items.
Allows the utilization of Simplified Acquisition Procedures (SAP) up to \$5 million for commercial goods and services.

c. Services Acquisition Reform Act of 2003

Services Acquisition Reform Act (SARA) of 2003 as reported by the GAO, “was enacted to provide federal agencies with tools to maximize mission performance in this

challenging environment” of increased federal spending on contracts for services, a diminishing acquisition workforce and higher-dollar value procurements (Woods, 2005, p. 1). SARA’s intent was to provide federal agencies with a variety of tools to improve services acquisitions in the four major areas listed by Woods in his 2005 GAO report as shown in Table 4 (Woods, 2005, p. 1).

Table 4. Provisions of SARA 2003. Adapted from Woods (2005).

Categories	Provisions
Acquisition Workforce and Training	- Civilian acquisition workforce training fund - Acquisition workforce recruitment flexibility - Maintaining architectural and engineering acquisition workforce expertise
Business acquisition practices	- Civilian Agency Chief Acquisition Officers (CAO) - CAO Council - Advisory panel on acquisition laws and regulations - Extension of franchise fund programs - Contracting for architectural and engineering services - Telecommuting for federal contractors
Commercial item Acquisitions	- Incentives for performance-based contracts - Time-and-materials contracting for commercial services
Other procurement flexibilities	- Special “other transactions” acquisition authority - Public disclosure of noncompetitive contracts for Iraq reconstruction - Emergency procurement flexibilities

4. Cost Accounting Standards

The requirements for CPD and the requirements for Cost Accounting Standards (CAS) serve different purposes; however, both share the same dollar threshold that initiates the requirements. As such, a change in the CPD threshold may directly impact the CAS applicability. The following provides a brief discussion on the intent of CAS and how CPD and CAS relate to each other.

Under 41 U.S. Code § 1502, Cost Accounting Standards, the Cost Accounting Standards Board (CASB) was established in 1970 to promote consistency in contractors accounting systems. The Code also states that the intention of CAS was to achieve

standardization in the uniformity and consistency of contractors' accounting systems. Defense Acquisition University states that CAS consists,

of nineteen standards promulgated by the CASB designed to ensure uniformity and consistency in the measurement, assignment and allocation of costs to contracts with the United States Government. CAS covers a variety of costs such as depreciation, pension plans, personal compensation, indirect costs and other areas of cost accounting. (Defense Acquisition University, 2019)

Additionally, it established regulations that required any contractors entering into federal government contracts to “disclose in writing their cost accounting practices” and to “agree to a contract price adjustment, with interest, for any increased costs paid to the contractor or subcontractor” for changes to accounting practices or failing to comply with CAS (Cost Accounting Standards, 2019). CAS ultimately holds the contractors accountable for actions that deviate from disclosed practices.

CAS and CPD legally relate to one another, if the CPD threshold increases so will the CAS threshold (Marcinko, 2018). The relationship does not, however, “change the \$50 million threshold for full CAS coverage but does mean that contractors subject to full CAS coverage will likely have less CAS covered contracts. Though the threshold increases are effective July 1, 2018, it is not clear when the pertinent Federal Acquisition Regulation (FAR) clauses will be changed” (Marcinko, 2018).

B. RESEARCH PURPOSE

The purpose of this paper and our study is to analyze the costs and benefits to the government from obtaining certified cost and pricing data. Our study discusses whether the government is still receiving benefits as initially intended. We examine the applicable data from Federal Procurement Data System–Next Generation (FPDS-NG) to determine the magnitude, relevance, and trends of certified cost and pricing data within the government contracting community. This study is important because it provides insight into CPD's relevance in today's government contracting environment.

C. RESEARCH QUESTIONS

Through this research paper we intend to answer the following questions:

1. Does the government still benefit from Cost or Pricing Data?
2. What are the trends in applicability of CPD, historically and as a result of threshold changes?
3. Are there concentrations of industries, agencies, or contractors most impacted by this requirement?
4. Is the original purpose of CPD, and its applicability, still holding true?
5. What is the impact of threshold changes and corresponding relationship to CAS coverage?

D. SCOPE

The scope of this research covers historical data over the last five years, with emphasis on the data gathered subsequent to threshold changes. Due to obvious size limitations data was only reviewed for contract actions obligating over \$700,000, for a period covering the last five calendar years (2014 through 2018). We conduct a comparative analysis of the data points in time and identify the applicable trends with regards to DoD, NASA, and the Coast Guard. A comparative analysis is also performed for DoD, NASA, and Coast Guard against other Federal Agencies, in order to provide a backdrop for the size and nature of the requirements and trends. Results cover analysis of identified trends, uncover potential areas of concern, examine the continued applicability of the CPD requirement and recommend areas for further research. This paper also captures the actual dollar impacts of CPD over the past five years and provide the relevance of its existence in today's current contracting environment.

No human subject involvement was used throughout our research or data gathering for this paper. No interviews were obtained or referenced in this paper. We reviewed and adhered to the Naval Postgraduate School (NPS) Institutional Review Board (IRB) protocol.

E. CHAPTER SUMMARY

This chapter started with a brief history of CPD, stated the purpose of our research, introduced questions we intend to solve, and ended with the scope of our research. The second chapter covers the most recent laws and regulations surrounding CPD, CAS, oversight reports, and related research. The third chapter discusses the types of data gathered, the methodology applied, followed by the results of the analysis. The fourth chapter provides answers to research questions, as well as present findings and recommendations. The last chapter provides a summary and conclusions.

II. LITERATURE REVIEW

The purpose of this chapter is to provide an understanding of the current opinion and current environment surrounding the CPD requirement. In order to do this, we present a discussion of relevant literature, followed by an overview of applicable laws and regulations.

A. REPORTS AND STUDIES

Relevant literature about CPD is found in GAO reports, Department of Defense Inspector General (DoDIG) reports, and in independent studies performed on behalf of the DoD. The following reports and studies have been chosen to represent relevant information pertaining to this research.

1. GAO Reports

In researching what GAO oversight reports related to CPD issues, CPD thresholds and defective pricing are available, it is interesting to note that the availability of reports from the 2014–2018 timeframe is very limited to nonexistent.

a. GAO Report Contract Pricing: Reasons for the Decline in Reported Defective Pricing

What was uncovered and related to our research was a GAO report dated April 1994, titled *Contract Pricing: Reasons for the Decline in Reported Defective Pricing* by David E. Cooper. Cooper informs Chairman John Glenn that the potential number of defective pricing cases on DoD contracts declined 70% from 1990 through 1992. Defective pricing reported by Cooper from fiscal year (FY) 90 to FY92 decreased by almost \$646 million. The decline was not due to CPD threshold changes, but mainly from changes in DCAA’s audit activities, in addition to contractor improvements to their cost estimating systems (Cooper, 1994).

Of the reasons identified for the decline, Cooper (1994) was most concerned that it was largely due to DoD’s “volume of contracting or audit activity, rather than to the improvements made by contractors” (p. 2). As a result, the “risk of defective pricing has

not declined as sharply as the data may indicate, and believe that improving contractor cost-estimating systems warrants DoD's continued attention" (Cooper, 1994, p. 2). The contractor's move towards improving cost estimating systems was still an important move for defective pricing within federal contracting and directly relates to CPD. With improved cost estimating systems, a better process is in place for contractors to provide CPD that is current, accurate and complete (Cooper, 1994).

b. GAO Report Evolved Expendable Launch Vehicle: DoD Needs to Ensure New Acquisition Strategy Is Based on Sufficient Information

A more current 2011 GAO report focused on the importance to the government in receiving CPD, titled *Evolved Expendable Launch Vehicle (EELV): DoD Needs to Ensure New Acquisition Strategy Is Based on Sufficient Information* by Christina Chaplain. Chaplain points out the importance of obtaining certified CPD for the government to obtain a fair and reasonable price. The CPD requirement was frequently waived in the past, creating problems in determining fair and reasonable prices (Chaplain, 2011).

Chaplain (2011) further discussed how the government had limited insight into Boeing and Lockheed's FFP launch services contract costs due to the commercial item exception from obtaining CPD. The practices in the past can make finalizing a new EELV acquisition strategy more difficult to determine, "fair and reasonable prices given the insufficiency of historical and current cost or pricing data" (Chaplain, 2011, pp. 9–10).

As detailed in the report, sufficient historical and current cost or pricing data is of utmost importance not only to determine fair and reasonable pricing, but also for the government to properly define and estimate future requirement costs.

c. GAO Report DoD Faces Challenges in Reducing Oversight Costs

Information relevant to our research was found in the 1997 GAO report titled *Acquisition Reform: DoD Faces Challenges in Reducing Oversight Costs* by David E. Cooper. The report reviews the DoD's objective to reduce nonvalue oversight requirements in order to lower contractor compliance and government oversight costs (Cooper, 1997). The same report reviewed the cost drivers from Coopers and Lybrand's 1994 study that estimated an 18 percent cost increase to DoD's purchases was from government acquisition

regulations and oversight. Coopers, Lybrand, and TASC's study estimated a 1.3 percent cost impact from TINA alone. Cooper (1997) highlighted the "top 10 cost drivers (p. 4) accounted for almost half of the 18-percent cost impact" (p. 4), TINA made the list at number two.

In order to address the cost of TINA compliance, participants of GAO's report considered but did not pursue a threshold increase to the requirement of submitting certified CPD since this is set by law (Cooper, 1997). Instead, participants considered changes in legislative processes, such as "to eliminate formal proposals for ordering production spares" and "expanded use of parametric estimating techniques in lieu of preparing detailed cost data" (Cooper, 1997. pp. 7–8). The participants' efforts to address the cost of TINA compliance could lead to an estimated \$9.1 million or 6.3 percent cost reduction to comply with TINA while still preserving its benefits (Cooper, 1997).

Cooper's 1997 report provides additional evidence that the intent of CPD can be met if contractors can "submit current, complete and accurate cost or pricing data" (p. 8) to the government at a lower cost by "addressing the way in which contractors comply with TINA's requirements" (p. 8). Although challenges were recognized by GAO, those challenges were recommended to "not deter DoD from continuing its efforts to reduce nonvalue added oversight requirements" (Cooper, 1997, p. 5).

2. *DoDIG Report: Actions on Contractor Pricing Proposals Deemed Adequate by Defense Contract Audit Agency*

The DoD Inspector General (IG) published a recent report in 2018 that is of interest to our research, titled *Actions on Contractor Pricing Proposals Deemed Inadequate by Defense Contract Audit Agency* by Randolph Stone. The DoDIG report discussed how the CO is required to follow certain processes outlined in the FAR when a contractor's proposal is found to be inadequate. When certified CPD is required, the contractor shall submit offers in accordance with FAR 15.408 Table 15–2, which "provides general instructions for preparing price proposals, including how to identify basic cost elements and line item summaries" (Stone, 2018, p. i). If the contractor's proposal does not adhere

to FAR requirements, the CO “shall consider any new data submitted to correct the deficiency” (Stone, 2018, p. 5).

In one of Stone’s (2018) findings, “for 9 of the 23 contractor price proposals, the contracting officers did not adequately document the existence of the inadequacies or the actions they took to negotiate a fair and reasonable price with the contractor” (p. 8). Documentation must be included in the contract file to verify that CO’s address any and all inaccuracies before negotiating a final price, in accordance with FAR 15.406-3 (Stone, 2018, p. i). FAR 15.406-3, “requires contracting officers to document in the contract file the principal elements of the negotiated agreement, including the requirement that contracting officers document cost or pricing data inadequacies and the actions contracting officers took to address the inadequacies” (Stone, 2018, p. 2).

Without proper documentation addressing CPD inadequacies and the actions COs took to resolve the inadequacies, the government cannot ensure that CPD is being used to serve its intended purpose.

3. Armed Services Board of Contract Appeals

CPD can benefit and protect the government from defective pricing damages when prices disclosed by the contractor are inaccurate, incomplete or not current. Successfully obtaining contractor repayment for defective pricing damages is dependent on the government’s ability to prove and accurately quantify the impact (Lieberman, 2017). One case the government lost on appeal was Lockheed Martin Aero. Co., Armed Services Board of Contract Appeals (ASBCA), No. 56547, dated Jan. 22, 2013, where the government failed to provide proof of actual damages from reliance on defective pricing (Lieberman, 2017).

Lieberman (2017) summarizes that Lockheed Martin billed the government for modifications of hardware and software upgrades for the U.S. Air Forces’ F-16 aircraft, and that subsequent to the contractor’s payment requests, the government discovered the contractor did not disclose pricing information that were current, accurate, and complete. As a result, the government pursued a claim against Lockheed Martin Aero. Co. but “the government’s claim of defective pricing was fully “rejected” because the government

improperly calculated the cost impact of the overpricing and failed to prove that reliance on defective pricing caused the damages (Lieberman, 2017). Even though the contractor admitted to pricing deficiencies, the government was unable to recoup monies for damages because it did not present the impact in an adequate manner to prove the connection between defective pricing and the overpricing (Lieberman, 2017).

4. Issues with Related Research

In 1994, Coopers and Lybrand performed a study “to assist DoD’s reform efforts by providing credible, empirically-based estimates of the industry cost impact of DoD regulation and oversight” (p. 1). The study reported that the DoD cost premium attributable to TINA compliance was 1.3%. This figure has been used in multiple follow up studies, including the 1997 GAO report discussed previously in this chapter, a 1997 Coopers and Lybrand’s follow up study, and a 2001 RAND overview of the validity of estimates for cost savings due to acquisition reform.

While the 1994 Coopers and Lybrand study was the first of its kind to use a verifiable and systematic approach to measuring the cost of DoD regulatory compliance, we find that the follow-on research does not appear to delve into the origins of the percentage and this figure may be outdated and unreliable.

Calculation of Total Cost Impact: The cost impact of 1.3% was calculated as a percentage of the compliance cost divided by the “value added” cost, where the value-added cost was the total cost less material, subcontract, profit, and General and Administrative (G&A) expenses (Coopers, Lybrand, 1994, p. 4).

As the 10 contractors chosen for analysis included both prime and subcontractors, the study explains that the value added approach was utilized in an attempt to remove any duplication of costs for subcontractor or material purchase, as well as removing any duplication of costs resulting from flow down provisions and clauses. Profit and G&A expenses were also excluded merely because of the contractors “reluctance to provide this sensitive information and because, in the defense industry, profits are driven largely by costs” (Coopers, Lybrand, & TASC, 1994, p. 4).

The use of a modified value added cost is detailed in the fine print of the 144-page study, and could be misleading for any researchers utilizing this report for further study. Multiplying a burden of 1.3% against a total cost would not only overestimate the burden but also be against the methodology of the study. Given advances in technology in data collection and reporting, a new study would be able to easily segregate prime and subcontractor costs in way that total cost could be used in calculations that would allow future studies to easily calculate a burden on a contract or contractor basis.

Average impact: Coopers and Lybrand's study identifies that one of the ten contractors "refuses to provide certified cost or pricing data to DoD," but this contractor was included in calculating a straight average of the cost across the 10 contractors (Coopers, Lybrand, & TASC, 1994, p.12). This poses a significant concern as a zero would have been included in calculating the straight average.

Study participants: The scope was limited to ten contractors, specifically chosen to represent a mix of characteristics such as size, industry, or region (Coopers, Lybrand, & TASC, 1994). As such, the study specifically adds a warning if using the results for the entire DoD industrial base, or to estimate cost savings in relation to specific regulations.

Misleading cost impact or total impact: Another problem is in the way the percentage of total impact is presented. The 1994 study identifies that DoD faces an 18% cost premium on page 12, where the top 10 cost drivers are presented as 48.9% within the 18%, and TINA cost impacts are 7.3% of the 18% (Coopers, Lybrand, & TASC, 1994).

Technology: This study was performed 25 years ago, when access to computers and software was limited and rudimentary. The study references a very large burden to contracting personnel, and this study is now outdated due to advances in technology that is used to gather, collect, and analyze the data.

It would be useful to know how much of the cost the government bears in order to obtain the CPD information it needs to make a fair and reasonable determination, as the burden is often cited as a cost driver on government contracts. This is a finding and we recommend an updated study be conducted with attributes similar to the Coopers and Lybrand study of 1994, utilizing updated data and analysis techniques. This may provide

more transparency as to the true cost premium the government pays for regulatory compliance, and if that cost is shared by the contractor or solely passed onto the government.

5. Pros and Cons of CPD

As discussed previously, there are numerous advantages and disadvantages of obtaining and analyzing CPD. The following list provides a high-level summary of the pros and cons of CPD.

a. Pros

- CPD assists the CO with the pursuit of price fairness and reasonableness while increasing the contractor's accountability for submitted data.
- Puts the government on an equal playing field in sole source negotiations.
- Contractor cannot withhold information from the government.
- Requirement has led to contractor improvements such as improved cost estimating systems to provide CPD that is "current, complete and accurate" (Cooper, 1994, p. 8).
- Provides good historical information for acquisition strategies (Chaplain, 2011).
- Allows the government to recoup costs if defective pricing occurs.

b. Cons

- Additional cost premium passed onto the government.
- Contractor compliance costs and government oversight costs.
- Added requirement such as time on the government to analyze the CPD and ensure the contractor complied with all CPD requirements.

- Hard to determine the true impact of cost increases associated with the CPD law.
- The government is responsible for proving a CPD violation has occurred.
- COs not properly documenting contract files to determine a fair and reasonable price or CPD inadequacies (Stone, 2018).
- COs not ensuring CPD is being used to serve its intended purpose.
- Waiving the CPD requirement can create problems in determining fair and reasonable prices in future requirements (Chaplain, 2011).

B. LAWS AND REGULATIONS

As public laws form the basis for federal contracting policy, it is important to understand which laws drive the policies, and which policies apply to CPD.

1. U.S.C.

United States Codes (U.S.C.) forms the basis for flow down regulations in the FAR and agency supplements. The requirement for CPD is addressed in both Title 10 U.S.C §2306a and Title 41 U.S.C. Chapter 35. Both are extensive, and therefore only the most relevant portions are summarized further. Full text of both codes can be found in Title 10 U.S.C §2306a and Title 41 U.S.C. Chapter 35.

a. Title 10 U.S.C. §2306a— Cost or Pricing Data: Truth in Negotiations

In accordance with United States Code (U.S.C.) §2306a, “the head of an agency shall require offerors, contractors, and subcontractors to make cost or pricing data available” when they are a prime contractor for other than sealed-bid awards above \$2 million after July 1, 2018 and above \$750,000 prior to June 30, 2018 or if the head of the agency is expecting only one bid, then the contractor “shall be required to submit cost or pricing data before the award of the contract” (Cost or Pricing Data: Truth in Negotiations of 2017, 2019). As introduced in Chapter I, there must be a method for validating price reasonableness if adequate competition does not exist. Hence, changes or modification to

the prime contract exceeding the applicable threshold, the contractor “is required to submit cost or pricing data before the pricing of a change or modification to the contract” (Cost or Pricing Data: Truth in Negotiations of 2017, 2019).

In accordance with U.S.C. §2306a, the authority to grant certification waivers resides with the HCA, although a waiver does not automatically waive the entire requirement (Cost or Pricing Data: Truth in Negotiations of 2017, 2019). Under the U.S.C. §2306a, the HCA, without delegation authority, can also waive the CPD requirement for data or work performed in connection with a “sale of a weapon system or defense-related item to a foreign country or foreign firm” (Cost or Pricing Data: Truth in Negotiations of 2017, 2019).

However, a waiver can be avoided all together if the contractor meets any one of the exceptions for CPD. As noted in Chapter I, and as stated under U.S.C. §2306a, the acquisition of a product or service is exempt from CPD if it meets one of the following criteria;

- Adequate price competition
- Prices “set by law or regulation” (Cost or Pricing Data: Truth in Negotiations of 2017, 2019).
- Commercial items
- If the CPD requirement is waived by the HCA
- Modification of a commercial item

While U.S.C. §2306a does not have a definition of commercial, Title 10 Chapter 137 §2302 refers to the definition found in Title 41 U.S.C. Chapter 1. A commercial item is “any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and has been sold, leased, or licensed to the general public; or, has been offered for sale, lease, or license to the general public”(Commercial Item, 2019)

U.S.C. §2306a further identifies circumstances when CPD is required under the threshold. Requesting CPD would only make sense if the estimated cost savings are greater than the additional overhead costs billed to the government for added effort.

U.S.C. §2306a emphasized the importance of price reductions for defective pricing. The Code defines defective pricing as “any certified cost or pricing data submitted are inaccurate, incomplete, or noncurrent” (Cost or Pricing Data: Truth in Negotiations of 2017, 2019). Under the Code, a contract requiring CPD contains “a provision that the price of the contract to the United States, including profit or fee,” will require adjustment “to exclude any significant amount” determined by the HCA resulting from defective cost or pricing data (Cost or Pricing Data: Truth in Negotiations of 2017, 2019). This is to ensure the government has a recourse of action and has the capability of recovering unallowable costs.

b. 41 U.S.C. Chap. 35—Truthful Cost or Pricing Data

While Title 10 of United States Code (U.S.C.) covers the armed services, Title 41 U.S.C. Chapter 35 addresses public contracts. The language in both codes is nearly identical. However, while Title 10 addresses all of the requirements under one section, Title 41 U.S.C. Chapter 35 is reorganized to address requirements and exceptions among nine sections by topic, U.S.C. §3501 through U.S.C §3509.

2. FAR

Under FAR 1.101 “The Federal Acquisition Regulation System is established for the codification and publication of uniform policies and procedures for acquisition by all executive agencies” (Purpose, 2019). Therefore, the FAR contains nearly identical language of the U.S.C, however, the information is reorganized into sections, for example, by waivers, exceptions, or modifications.

a. Proposed Rule Change (FAR Case 2017–006)

On June 12, 2018, DoD, GSA, and NASA proposed a new rule (FAR Case 2017–006) to align the FAR to Section 822 of the National Defense Authorization Act (NDAA) for FY17, Public law 114–328 (Regulations.gov, 2018). The FAR 2018 rule would

essentially eliminate two of the exceptions to certified CPD for the DoD, NASA and Coast Guard.

As noted previously, FAR 15.403(c)(1)(ii) contains two exceptions to obtaining CPD where 1) adequate price competition exists because of the expectation that there would have been more than one offer, but only one was actually received, or 2) where price analysis of “the same or similar items” demonstrates reasonable pricing (Prohibition on Obtaining Certified Cost or Pricing Data, 2019). What is notably missing from both of these exceptions is that the price is fair. Under these instances of mock competition, it is assumed that the price is fair because of the assumption contractors believed they had a competitor.

The NDAA for 2017 included Section 822, Enhanced Competition Requirements, which amends 10 U.S.C. §2306a to define that adequate price competition is only satisfied by, “competition that results in at least two or more responsive and viable competing bids” (National Defense Authorization Act for 2017). This means DoD, NASA, and Coast Guard cannot adequately meet price competition by having only one offer under any circumstances, and CPD is required unless another exception applies.

Ten public comments were received for the proposed rule, FAR Case 2017–006, many of which were in response to the word choices of responsive and viable (Regulations.gov, n.d.). FAR Part 14 is the only place in the FAR which references the terms “responsive” and “bids,” and these terms are not typically used in FAR Part 15 negotiated procurements (Sealed Bidding, 2019). One of the commenters specifically suggested adding new definitions to either FAR Parts 2 or 15 to eliminate any conflict in terms (West, 2018).

The Aerospace Industry Association (AIA) and the National Defense Industry Associations (NDIA) both took particular exception to the proposed rule (Regulations.gov, n.d.).

The AIA mainly disagrees with the new rule which essentially eliminates any one offer exceptions, asserting that it adds unnecessary rework, creating additional time and

cost to contractors, and “will require process changes for scoring and evaluating bidders” (Luddy, 2018).

The NDIA took exception to the fact part of the NDAA for FY17 was not addressed (NDIA, 2018). This second part of the NDAA for 2017 was to give prime contractors responsibility to determine whether or not a CPD exception applies for a subcontract, and this responsibility was not proposed to be added to the FAR at the same time as the new standard for adequate price competition.

The Project on Government Oversight (POGO) praised the new rule and recommended additional applicability, such as the need to require CPD on all non-competitive procurements, regardless of thresholds, regardless of commerciality, and regardless of agency (POGO, 2018). POGO (2018) further discussed that if the rule was not expanded to further restrict the CPD exceptions, the government will potentially have difficulties establishing price reasonableness due to contractor denial of certified CPD.

What this discussion shows is the wide degree of opinion as to whether or not expanding or restricting the current regulations is an added cost or an additional benefit. One could reasonably expect that when the proposed rule is finalized, that there will be an increase in the number and value of contract actions subject to CPD. While this rule change impacts the scope and applicability of contracts actions subject to CPD, as the rule has not been finalized, it cannot be analyzed for this study.

3. Responsibility Determinations

The requirements of CPD and TiN have far-reaching implications, as there is a direct impact to a contractor being determined responsible for the purpose of contract awards. The topics of responsibility and responsibility determinations are very broad, therefore, for the purpose of this paper, the discussion is limited to those regulations with a direct impact to CPD and TiN. The following provides a high-level overview of FAR requirements with respect to CPD and is not an exhaustive list.

Per FAR 9.103, federal government contract awards shall only be made to responsible contractors (Policy, 2019), the standards of which are found in FAR 9.104

(Standards, 2019). FAR 9.104-6(a)(1), in particular, states that CO's shall, "before awarding a contract in excess of the simplified acquisition threshold, the contracting officer shall review the performance and integrity information available in the Federal Awardee Performance and Integrity Information System (FAPIIS)" (Federal Awardee Performance and Integrity Information System, 2019). FAR 9.105-1 continues in that a CO must have sufficient information to determine if a contractor is responsible and under FAR 9.105-2(b)(2)(ii) shall document non-responsibility determinations in FAPIIS "within 3 working days" (Determinations and Documentation, 2019).

FAR Subpart 42.15, "provides policies and establishes responsibilities for recording and maintaining contractor performance information" (Scope of Subpart, 2019). As required by FAR 42.1503(g), "agencies shall use the past performance information...contained in FAPIIS" when evaluating a contractors past performance prior to contract award (Procedures, 2019). Under FAR 42.1503(h)(1) agencies shall report a CO's "final determinations that a contractor has submitted defective cost or pricing data" into FAPIIS, "within 3 calendar days" (Procedures, 2019).

Given the volume of specific instruction given to reporting defective pricing into one central location, and that defective pricing is considered to be a matter of responsibility, one should expect to find defective pricing reports when checking FAPIIS. It is interesting to note that there are zero reports of defective pricing listed in FAPIIS covering the last five years. This anomaly is discussed further in Chapter III and is addressed as a finding in Chapter IV.

4. DFARS

As the purpose of the DFARS is to implement or supplement the FAR, it is not as detailed or informative. The DoD policy covering the "Prohibition on Obtaining Certified Cost or Pricing Data," requiring data other than CPD, and instructions for submission of CPD are located in DFARS 215.403 (Obtaining certified cost or pricing data, 2019). Similar to the FAR and the USC, the exceptions under DFARS 215.403 include adequate competition, commerciality, and waivers. However, DFARS 215.403 does not address

exceptions for prices set by law or modifications, as those are already addressed in the FAR.

5. Agency Regulations

After significant review of USC, the FAR, and DFARS, one could be led to naturally wonder if the agency supplements contain another layer of requirements or if they are administrative in nature only. It would be expected that agency supplements would not contain common requirements, as common requirements are already found in DFARS. As contractors have stated an increase in TINA waiver costs associated with varying requirements “from service to service,” (Lorrell & Graser, 2001, p. 27) it is important to verify that claim.

The following represents agency-specific policy regarding CPD, which is contained in individual agency supplements for the DoD, NASA, and U.S. Coast Guard. The Department of Homeland Security Acquisition Regulation (HSAR) is listed, as it is the parent organization to the U.S. Coast Guard.

- Department of the Army FAR Supplement (AFARS): Internal instructions for waivers (Contracting Pricing, 2019)
- Department of the Air Force FAR Supplement (AFFARS): Internal instructions for waivers, D&F for commercial item exceptions, annual reporting (Contract Pricing, 2019)
- Department of Homeland Security Acquisition Regulation (HSAR): No policy information on CPD (Contracting by Negotiation, 2019), although the Homeland Security Acquisition Manual (HSAM) addresses one offeror price analysis specific to using a CPD exception on the basis of adequate price competition with the expectation of having more than one offer. HSAM goes one step further to clarify that the U.S. Coast Guard cannot use this exception, in accordance with 10 U.S.C. § 2306a (b)(1)(A)(i) (One Offer Received Under Competitive Procedures, 2009)

- Defense Information Systems Agency (DISA) Acquisition Supplement (DARS): Agency specific pricing assistance instructions (Contract Pricing, 2019)
- Defense Logistics Agency (DLA) Directive (DLAD): Internal instructions for waivers, annual reporting, obtaining information in CBAR, and Defense Contract Management Agency (DCMA)/DCAA pricing assistance instructions (Contract Pricing, 2019)
- NASA FAR Supplement (NFS): Internal instructions for waivers, and guidance on obtaining data other than CPD (Contract Pricing, 2019)
- Navy Marine Corps Acquisition Regulation Supplement (NMCARS): Internal instructions for waivers, commercial exemption annual reporting (Contract Pricing, 2019). Pursuant to NMCARS 5215.403-1 (S-90), the Navy is the only agency to include supplementary information regarding procedural submission of requests to utilize the DPAP pilot program, “Pilot Program Regarding Risk-Based Contracting for Smaller Contract Actions Under the Truth in Negotiations Act”(Contract Pricing, 2019).
- United States Special Operations Command FAR Supplement (SOFARS): Solicitation provision 5652.215-9010 may be included when CPD is not required (Cost and Pricing Data Not Required (1998) Section L, 2019).
- United States Transportation Command FAR Supplement (TRANSFARS): No policy information on CPD (A Quick Reference of the TRANSFARS Parts, 2007)

Based on the information above, while agency supplements contain varying procedures and guidance with respect to CPD waivers, the degree to which it varies is not considerable. Most of the variance is due to reporting requirements. As such, it would not be expected that agency supplements contain additional CPD requirements that would

cause additional burden to contractors beyond any internal agency delay in awarding the contract actions.

6. Cost Accounting Standards

As noted in Chapter I, the Cost Accounting Standards (CAS) threshold is directly linked to the CPD threshold. Title 41 U.S.C. Chapter 15 contains the requirements for the use of CAS, mandating contractors to conduct consistent business practice in estimating, accumulating, and reporting costs for contract actions above the CPD threshold. Similar to CPD regulations, the FAR reiterates but reorganizes the language of the U.S.C. in FAR Part 30, Cost Accounting Standards Administration. While this study is not about CAS, it is important to understand the relationship and burden to this related requirement. Since both CAS and CPD share the same threshold, it would be expected to face similar trends in scope or applicability due to threshold changes.

C. CHAPTER SUMMARY

This chapter covered relevant literature surrounding the CPD requirement and provided a summary of specific laws and regulations relating to this study. The laws begin with U.S.C. and flowed down to agency supplements. The next chapter provides the data analysis, beginning with the types of data used, followed by the methodology, and ending with the results of the analysis performed.

III. DATA ANALYSIS

The purpose of this chapter is to illustrate the results of our analysis and provide meaningful discussion of historical trends. This discussion helps answer our research questions so that we can then provide recommendations based on our findings. In order to do this, we discuss the types of data collected and the methodology applied, followed by the results of the analysis. What the analysis shows is that while the threshold for CPD has increased, the number of contract actions and dollars obligated and subject to CPD has also increased. Additionally, it was found that the Air Force and aerospace industry face the largest burden of CPD requirements, as does a small and concentrated number of contractors.

A. TYPES OF DATA

In order to analyze applicability and historical trends in data, we utilized Federal Procurement Data System - Next Generation (FPDS-NG). As discussed further, there was an insufficient amount of data that was publicly available for analysis with the Defense Contract Audit Agency (DCAA), the Federal Awardee Performance and Integrity Information System (FAPIIS), and FAR agency information collection data reports. As such, we were not able to use information from those sources in our analysis.

1. FPDS-NG

FPDS-NG is a database comprised of detailed information on federal expenditures. Government agencies report procurement outlays in FPDS-NG, as required by FAR Subpart 4.6 (Contract Reporting, 2019). The following list is a summary of the FPDS-NG data fields included in reports;

- Award information, such as the type of contract and contract number
- Dates of contract actions, obligated dollars, and total potential contract values
- Procuring and funding activity information
- Contractor information, such as size, location, and place of performance

- Contract information, such as the extent of competition, commerciality, number of offerors, brief description, and predominant industry as identified by the reported North American Industry Classification System (NAICS) code.
- The NAICS code data is particularly useful to analyze contractual trends by industry, as it is considered, “the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy” (U.S. Census Bureau, 2018, para. 1).
- The requirement for cost or pricing data
- CAS coverage applicability

As stated in the FPDS-NG user manual (2019), FPDS-NG reports data for contract awards over \$10,000, including all subsequent modifications, and the information contained in the data fields is populated on a Contract Action Report (CAR). Additionally, the manual provides instructions for running reports utilizing basic and advanced searches for data fields populated on the CAR.

According to the FPDS-NG government user’s manual version 1.5, data collected creates reports for use by multiple federal agencies, Congress, and even the President, and as such, the manual reiterates how imperative it is that the reported information is accurate. For additional emphasis, agencies must annually certify as to the “accuracy, integrity, and timeliness” as stated by the FPDS-NG government user’s manual version 1.5 (p. 2). We determined FPDS-NG a reliable source of data for the purpose of this research given the data available on reported contract actions and the commonality of the system used for other major reports.

2. DCAA

DCAA provides an annual report to Congress highlighting its performance, recommendations, outreach, and accomplishments, as required by Title 10 U.S.C. §2313(a).

The 2017 DCAA Report to Congress identifies audit reports pertaining to post-award compliance with CPD are reported under the category “other audits.” Included in these audits were 357 completed reports totaling an examination of almost \$1 billion, which appeared to be the smallest audit workload. The report also indicates that “other audits” are the lowest priority. The data in the annual report does not contain any concrete information on the number or value of CPD compliance audit reports, hence, we did not consider it as a reliable source of information for further utilization in our analysis. We recommend DCAA provide further break down analysis of the information contained in the other audit category, allowing visibility and transparency into those other types of reports.

3. FAPIIS

Federal Awardee Performance and Integrity Information System (FAPIIS) is a web-enabled database used to collect and store information related to contractor responsibility. Agencies are required under FAR part 42 Contract Administration and Audit Services to use past performance information reported in FAPIIS in source selections (Contract Administration and Audit Services, 2019). FAPIIS records defective pricing actions and retains records for a period of five years (Contractor Performance Assessment Reporting System, 2019). We used the database in search of insights into the quantities and trends pertaining to defective pricing cases, however, the records lack the information for us to establish this data.

Of the 2,880 government-entered records dating back to March 21, 2014, none contain a record of defective pricing. While COs are required to report this data, a search of all government entered records in FAPIIS results in no records found. It is unclear if this missing data is due to a lack of accuracy reporting by the cognizant CO. For this reason, it leads us to believe the information in the database is not current and complete.

4. Agency Information Collection Activities

The Federal Acquisition Policy Division (FAPD) periodically collects and reports information pertaining to the burden of compliance with submitting certified cost or pricing data, and other than certified cost or pricing data (Regulations.gov, 2017). Our study

uncovered a report initiated by the FAPD for data collection pertaining to CPD. The results of the data including some comments from the stakeholders follow.

The FAPD collected and consolidated responses from the public on regulations.gov regarding total CPD burden hours spent by contractors and subcontractors executed to meet requirement (Regulations.gov, 2017). The collection resulted in 9,759,820 total hours spent by 39,425 respondents by the public on CPD requirements (Regulations.gov, 2017). In an attempt to understand the details of the total burden calculations reported, we reached out to the FAPD for further clarification. However, the division could not disclose or explain the captured data for our cost impact research (M. Jackson, personal communication, March 28, 2019). As a result, we found the data to be unsupported and inadequate for further study. Similar to our findings, the Professional Services Council submitted a response to the same type of agency collection activities for service contract reporting requirements, stating that the information is unnecessary since it lacks purpose, the results are incorrect, and the statutes behind them should be eliminated (PSC, 2017). On the other hand, like us, POGO understand the benefits of CPD is that it allows negotiations to be fair and reasonable in addition to preventing defective pricing (POGO, 2017). To further reduce public data result concerns, we recommend including calculation details in all future collections.

B. METHODOLOGY

The analysis included the identification of contract actions by DoD organizations, NASA, U.S. Coast Guard, and all other Federal agencies. DoD agencies are defined as listed on the U.S. Government website (USA.gov, 2019), and cross referenced with other DoD websites to additionally include the Defense Human Resources Agency (DHRA), Defense Media Agency (DMA), and Defense Microelectronics Agency (DMEA), not listed as DoD agencies on usa.gov.

The methodology used to analyze the data gathered included statistical analysis. This analysis also provides a visual representation of historical trends and correlation of data.

1. FPDS-NG Data Assumptions

- **Accuracy:** Like most databases, individuals with access are responsible for submitting the contractual information directly into the database. Hence, data accuracy initially starts with the CO, and agencies are additionally required to annually certify as to the accuracy of the data as stated FAR 4.604(c) (Responsibilities, 2019). For the purpose of this study, we assume all data are accurate, complete, and timely.
- **Awarded and Coded Properly:** As noted above, we make the assumption that the data reported in FPDS-NG is accurate. Therefore, we also make the assumption that if the data field indicates that CPD was required, that CPD was in fact required. We make this assumption due to several instances where the cost or pricing data field would initially appear to conflict with other data fields, for example, where CPD was required for a competed action. In this case, CPD may have been required where an award was solicited under full and open competition but only one offer was received.
- **Inflation:** Data retrieved from FPDS-NG was not adjusted for inflation.
- **NAICS Codes:** Since FPDS-NG only captures the predominant NAICS Code for the procurement action, contracts with multiple NAICS codes are only reported under the predominant NAICS Code as stated in the FPDS government user's manual version 1.5 (2019). As the NAICS code is not captured at the Contract Line Item Number (CLIN) level, it would be impractical to drill down to that level of detail for the purpose of this research. Therefore, the reported NAICS codes were utilized as an accurate representation of the procurement actions.
- **Grants and cooperative agreements:** According to the FPDS-NG government user's manual 1.5, grants and cooperative agreements are non-reportable actions, but are included to the extent the organization has the capability "to accumulate information on these types of action" (2019, p. 3).

2. FPDS-NG Statistical Data Analyzed

Raw data from FPDS-NG was utilized for our analysis, and was retrieved with the following parameters:

- Metrics contained: base and all options value (total contract value) and the action obligation value
- Metric Filter: The dollar value was limited to \$700,000 and above
- Data attributes contained: contracting agency name, modification number, date signed, cost or pricing data, extent competed, commercial item acquisition procedures description, NAICS code, NAICS description, Contracting Officer's business size selection, vendor name, Procurement Instrument Identifier (PIID), cost accounting standards clause description
- The time period was restricted from January 01, 2014 through December 31, 2018
- Due to the large volume and size of the data files, data was retrieved in batches and combined into a master file

3. Organization of Data

In order to compare and analyze the number of contract actions subject to CPD against those not subject to CPD, we removed the contracts not subject to CPD from the data set. The data excluded contractual actions under the following applicable threshold and dates of award;

- Under \$700,000 prior to September 30, 2015
- Under \$750,000 between October 1, 2015 and June 31, 2018
- Under \$2 million between July 1, 2018 and December 31, 2018

We include all FPDS-NG contracts coded with CPD requirements in our data set, regardless of threshold. We analyzed the excluded contracts separately to identify the types of contract actions that would have been subject to CPD, had the threshold not changed.

4. Statistical Analysis

Statistical analysis comparisons illustrated historical trends and correlations, beginning with an overall analysis of all Federal contract actions subject to CPD. Although it is useful to identify the overall burden of CPD for all Federal agencies, the scope of this research is specific to the DoD, NASA, and the U.S. Coast Guard. As such, analysis of contract actions awarded by other Federal agencies is limited to historical applicability, historical dollar values, and historical counts of actions, as compared to DoD, NASA, and the U.S. Coast Guard.

a. Overall View of Applicability

Contract actions subject to CPD were compared against those not subject to CPD over the past 5 calendar years, by all Federal agencies, and again by only DoD, NASA, and the U.S. Coast Guard. This allows a visual representation as to the percentage of contract actions that are subject to CPD.

b. Count vs. Dollar Value Analysis

Contract actions were analyzed to identify historical trends in overall contract obligated values and the number of contract actions subject to CPD. This analysis illustrates the volume of the overall burden of the requirement for all Federal agencies, as well as identifying the overall burden for DoD, NASA, and the U.S. Coast Guard.

c. Agency Burden Analysis

Contract actions subject to CPD were analyzed to identify the top ten DoD, NASA, or U.S. Coast Guard agencies with the largest burden of the requirement, by the number of contract actions by year and by the sum of obligated dollars.

d. NAICS Analysis

Contracts actions were analyzed by NAICS Code to identify historical trends in prominent industries, by the number of contract actions by year and by the sum of obligated dollars. Where it was found that one industry appeared to have three of the top ten NAICS

codes with contract actions subject to CPD, additional analysis was performed to identify the impact when the NAICS codes in that industry are combined.

e. Contractor Burden Analysis

Contracts actions were analyzed to identify the top ten contractors by the count of contract actions and by the obligated dollar value. An additional analysis was conducted to combine data where the data for one contractor was collected under two slightly different variations in name.

f. Threshold Change Impacts

Contract actions with obligations between old and new thresholds were analyzed to identify the impact of contract actions supposedly freed of the burden of the CPD requirement. This analysis provides insight as to how much of the burden may or may not have been not lifted after threshold changes. This analysis also allows for the identification of any concentrations freed of the requirement, by agency, industry, or contractor.

In order to perform this analysis, contract actions between the old and new thresholds were analyzed.

- Between \$700,000 and \$750,000 from October 1, 2015 through June 30, 2018
- Between \$750,000 and \$2 million from October 1, 2015 through December 31, 2018

The analysis was further limited to contract actions that would have clearly been subject to CPD, such as actions not competed and not commercial.

g. CAS Coverage Applicability Analysis

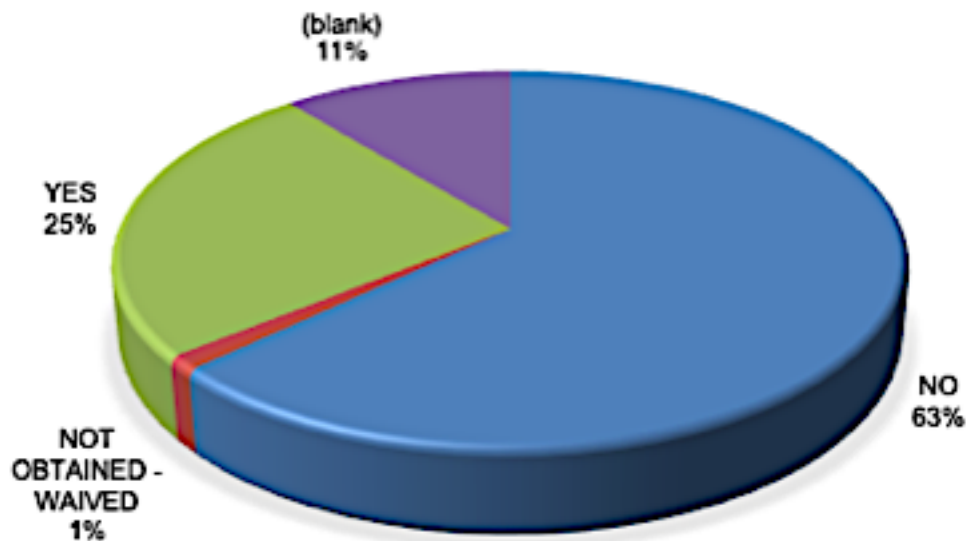
As the requirement to comply with CAS is tied to the CPD threshold under 41 U.S. Code § 1502, contract actions subject to CAS coverage were analyzed to identify any corresponding relationship of trends due to CPD threshold changes.

C. ANALYSIS

As discussed previously, the following analysis provides a general landscape as to the applicability of the requirement and illustrate historical trends in the distribution and concentration of the CPD requirement. The analysis is used to answer the research questions, to identify findings of anomalies or unusual trends, and to make recommendations.

1. Overall Applicability

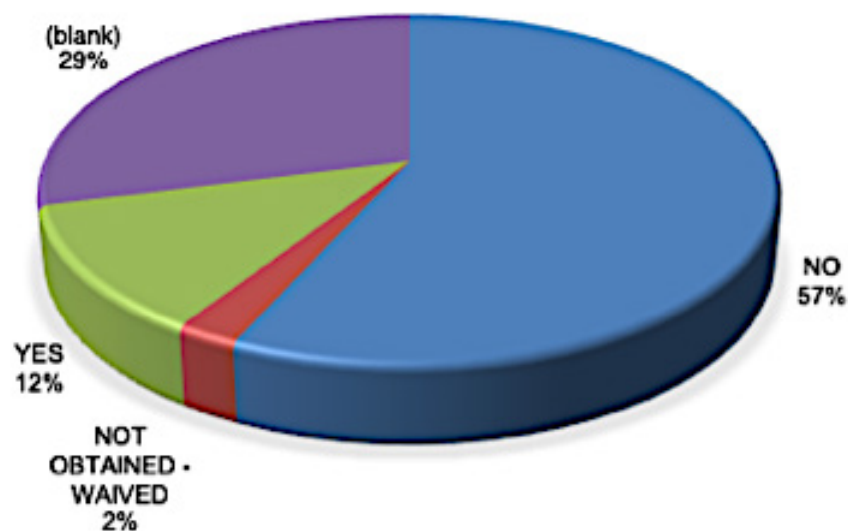
Figure 1 represents the relationship of the sum of contract actions over the CPD threshold in the last five years for the entire federal government. One quarter was subject to CPD, while 63% was not. It is interesting to note that 11% of the data reported had the field code for CPD left blank.



Adapted from source information in Chapter III, Section B2.

Figure 1. Percentage of Awarded Obligations over the CPD Threshold, 2014–2018

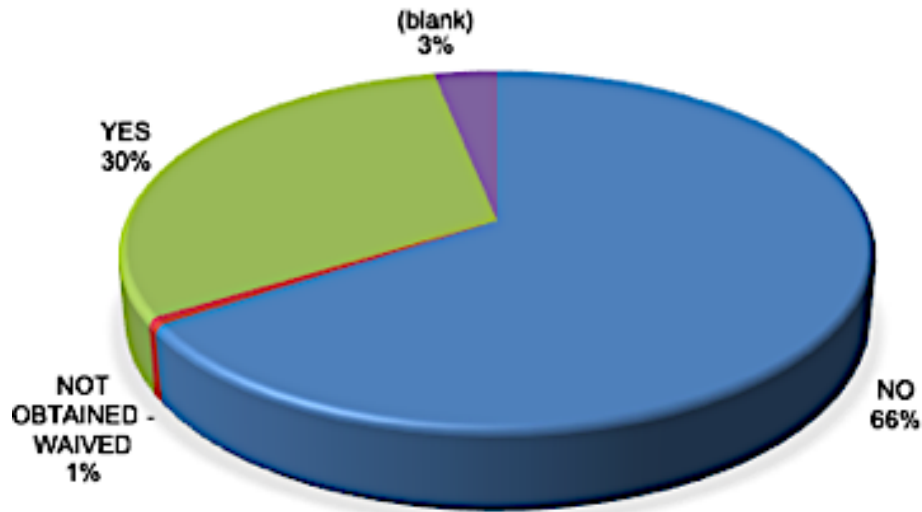
Figure 2 represents the identical comparison, excluding DoD, NASA, and Coast Guard. The percentage of contract obligations subject to CPD is 12% as compared to the entire federal government combined. Blank entries for the CPD data field balloons to 29%.



Adapted from source information in Chapter III, Section B2.

Figure 2. Percentage of Awarded Obligations over the CPD Threshold, 2014–2018 (Other Federal Agencies)

Figure 3 represents the identical comparison specific to the DoD, NASA, and U.S. Coast Guard. The percentage of contract obligations subject to CPD is then 30% as compared to the other federal agencies 12%. It is interesting to note that blank entries for these departments are only three percent. Given the disparity in blank entries, this is both a finding and recommendation to address the root cause and implementation of this data field.



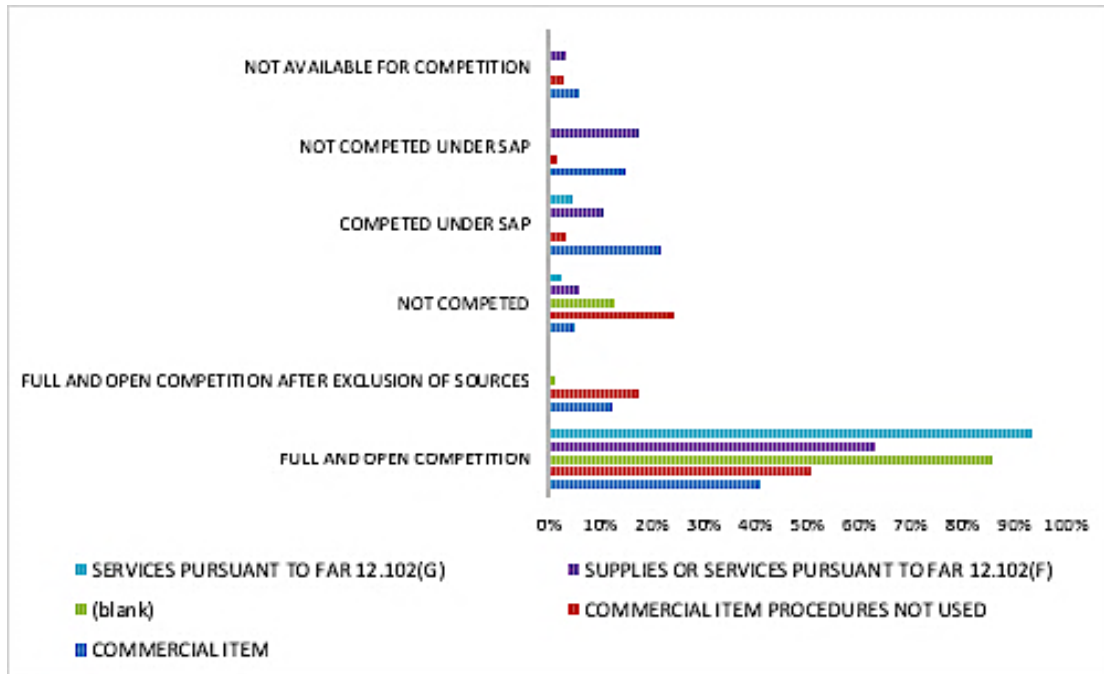
Adapted from source information in Chapter III, Section B2.

Figure 3. Percentage of Awarded Obligations over the CPD Threshold, 2014–2018 (Dod, NASA, U.S. Coast Guard)

In order to examine the significance or concern we should have over the percentage of blank entries for this study, we can examine other elements of these contract actions to determine if CPD would have applied, such as commerciality and competitive environment. As the purpose of this research is to focus on the impact to DoD, NASA, and U.S. Coast Guard, only these departments were analyzed further.

Figure 4 illustrates that 48% of the blank entries were competed under full and open competition, and another 34% were either competed under SAP or competed after the exclusion of sources (i.e., small business set-asides). Additionally, most of the competed actions were commercial.

Blank entries within full and open competition are considered to be insignificant, as competitive actions would not be subject to CPD. What remains is 17% of contract actions which were not competed or not available for competition. Considering that 17% is within the initial data set of 3% of blank fields for DoD, NASA, and U.S. Coast Guard, for the purpose of this research, it is determined to have minimal impact and does not warrant further analysis.

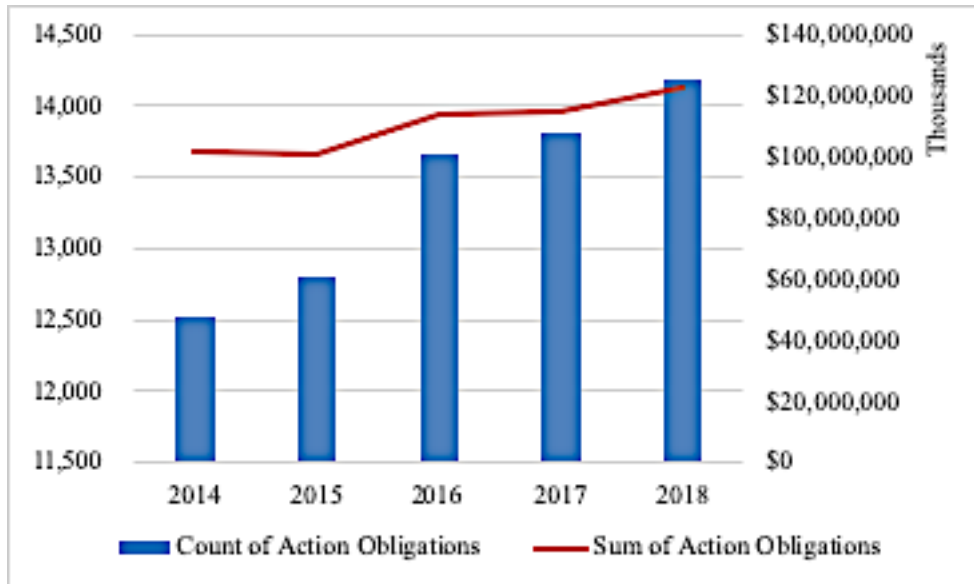


Adapted from source information in Chapter III, Section B2.

Figure 4. Competitive and Commercial Elements for CPD Blank Data Fields (DoD, NASA, And U.S. Coast Guard)

2. Count vs. Dollar Value

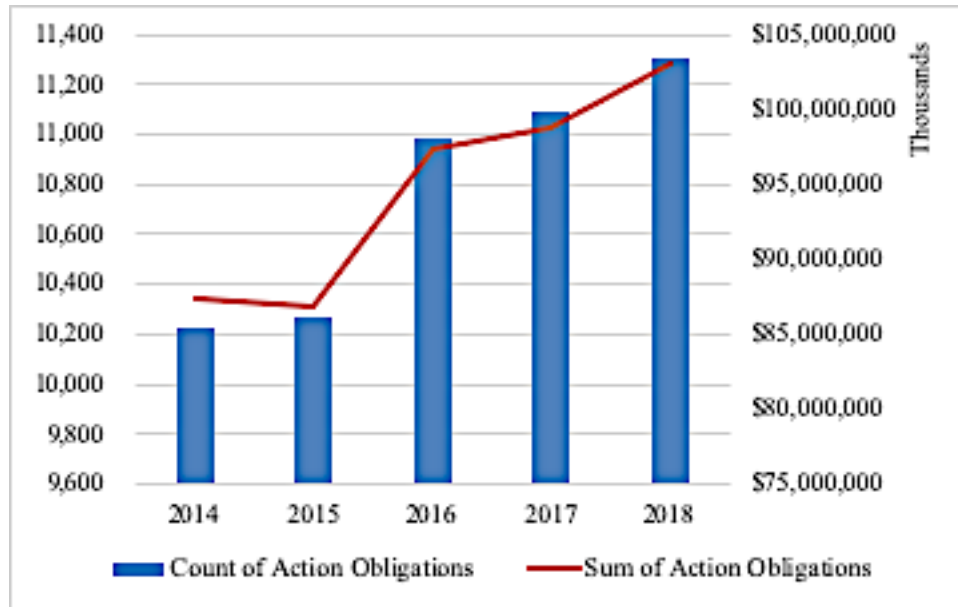
Analysis was performed in order to answer the question of whether or not there are any trends in the applicability of the CPD requirement. One could logically assume that the burden of the requirement for CPD would be reduced if the threshold were raised. Figure 5 is a visual representation of the historical trend in the number of contract actions subject to CPD for the entire federal government, as well as the sum of the obligated dollars subject to CPD. It is interesting to note that while the thresholds for CPD increased, the dollar value and count of contract actions subject to CPD also increased.



Adapted from source information in Chapter III, Section B2.

Figure 5. Summary of Contract Actions Subject to CPD, by the Sum of Obligations and by the Count of Obligations (All Government Agencies)

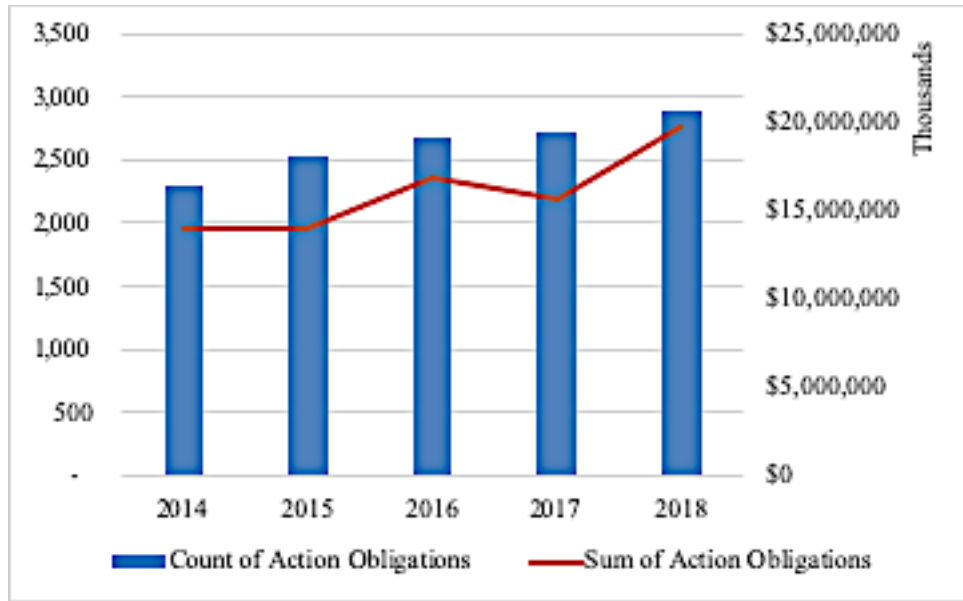
Figures 6 and 7 help to visualize the sharp differences in applicability between the other federal agencies as compared to the DoD, NASA, and U.S. Coast Guard. It is clear the burden for CPD has increased predominantly for DoD, NASA, and Coast Guard.



Adapted from source information in Chapter III, Section B2.

Figure 6. Summary of Contract Actions Subject to CPD, by the Sum of Action Obligations and a Count of Action Obligations (DoD, NASA, U.S. Coast Guard)

While other Federal agencies make up a much smaller scale of government spending, they have also experienced an overall increase in the requirement for CPD, as shown in Figure 7.

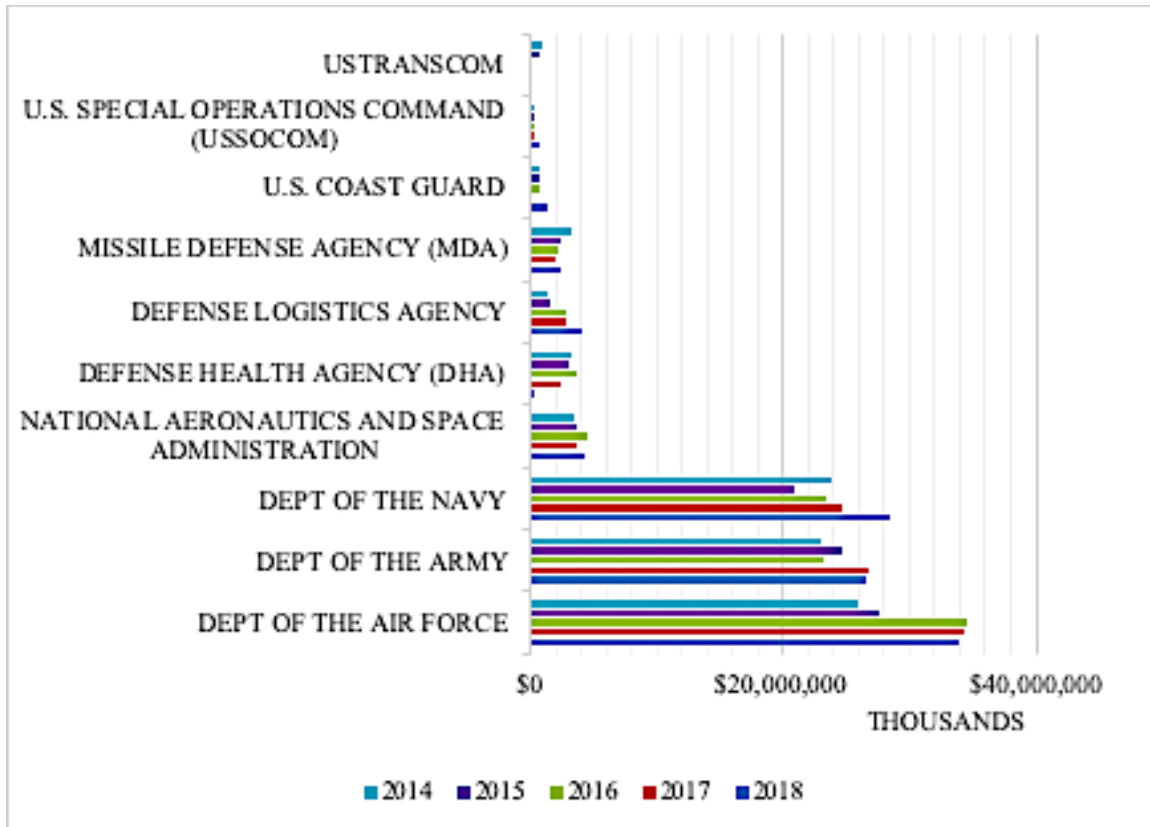


Adapted from source information in Chapter III, Section B2.

Figure 7. Summary of Contract Actions Subject to CPD, by the Sum of Action Obligations and a Count of Action Obligations (Other Federal Agencies)

3. Agency Burden Analysis

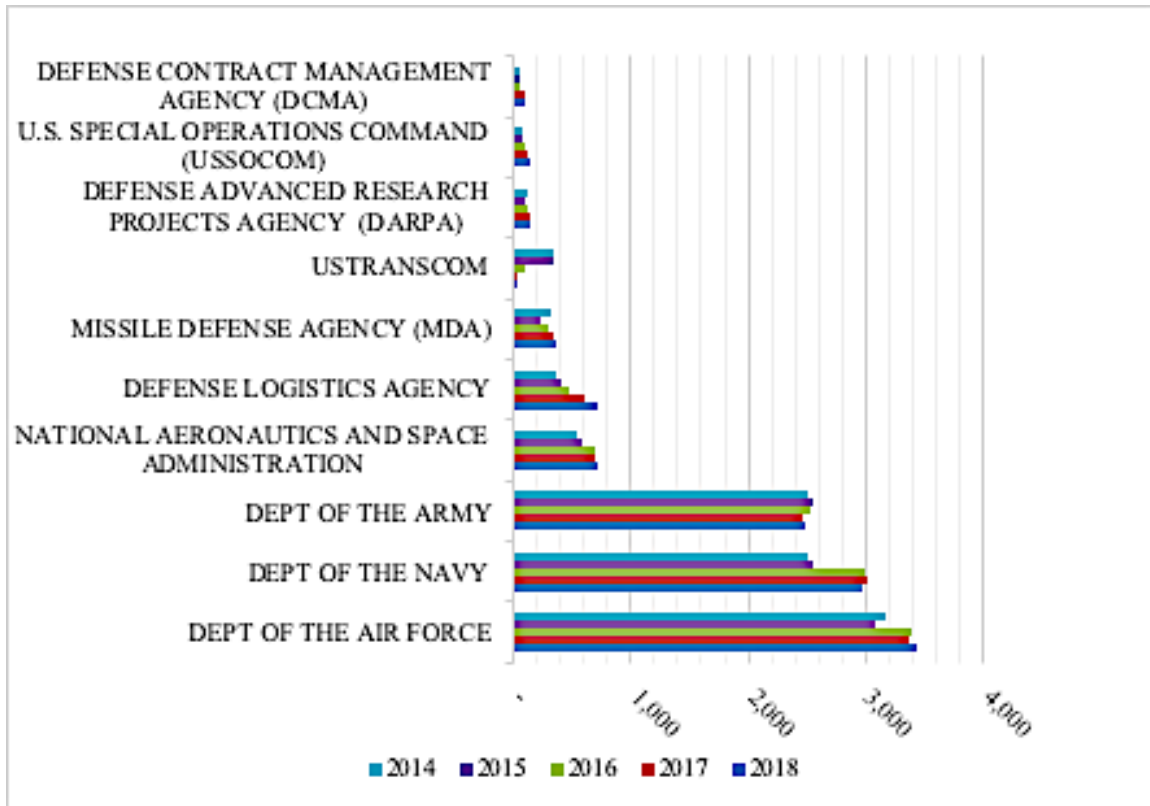
The analysis includes a comparison of the top ten agencies subject to CPD, by count of contract actions and by the sum of obligated dollars. The Air Force has consistently held majority of the burden for analyzing contracts subject to CPD by cumulative dollar value, as illustrated in Figure 8.



Adapted from source information in Chapter III, Section B2.

Figure 8. Top 10 Agencies Subject to CPD by Sum of Contract Obligations, 2014–2018 (DoD, NASA, U.S. Coast Guard)

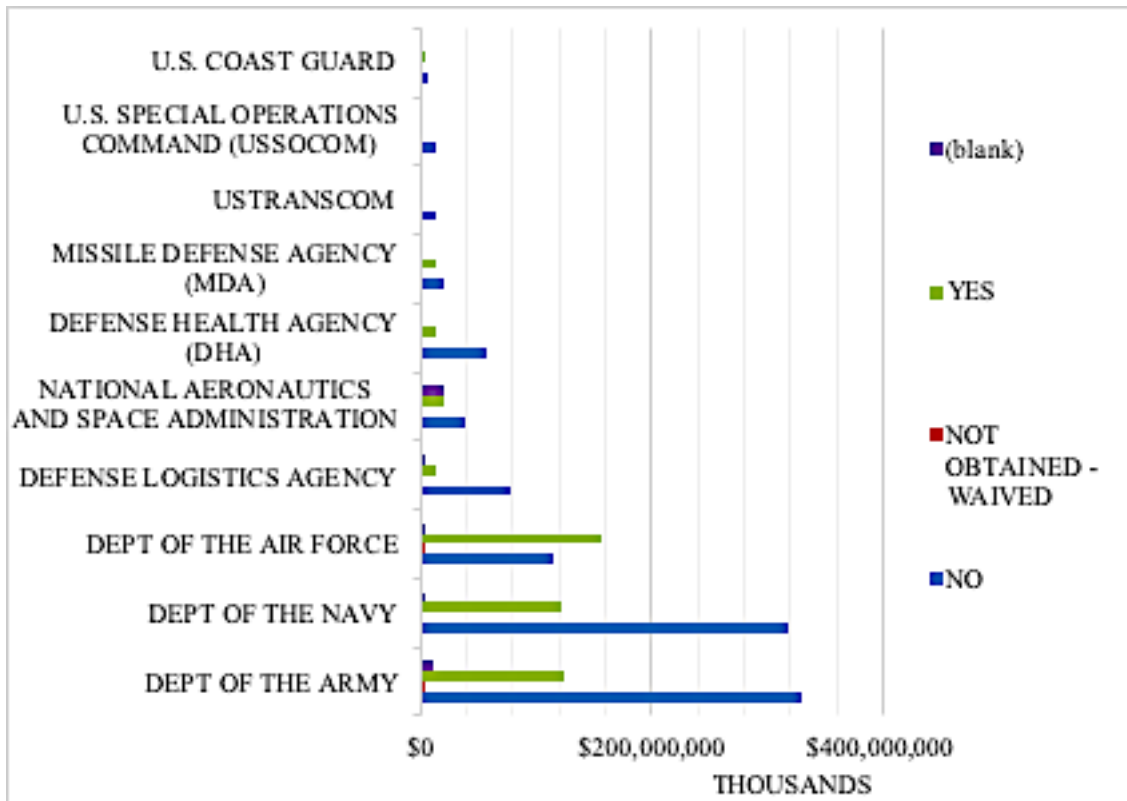
Additionally, Figure 8 shows that the Air Force also holds the largest burden of workload in analyzing CPD by the number of contract actions subject to CPD. As with the increase in awarded dollars subject to CPD, the Air Force has also seen a consistent increase in the number of contract actions, as shown in Figure 9. The U.S. Coast Guard drops out of the top 10 agencies by the count of contract actions and is replaced by DCMA. As both agencies are in the tenth place of 10, this is not considered significant and the correlating data between the Coast Guard and DCMA is not be analyzed further.



Adapted from source information in Chapter III, Section B2.

Figure 9. Top 10 Agencies Subject to CPD by the Number of Contract Actions, 2014–2018 (DoD, NASA, U.S. Coast Guard).

Out of the overall budgets for the top ten agencies in the past five years, the Army and Navy have a significantly larger number of contract action obligations that are not subject to CPD, while the Air Force has experienced the opposite. Out of Air Force contract action obligations, more than half require CPD, as shown in Figure 10. This leads to the conclusion that the Air Force faces the highest risk and reliance on CPD with respect to obtaining a fair and reasonable price.



Adapted from source information in Chapter III, Section B2.

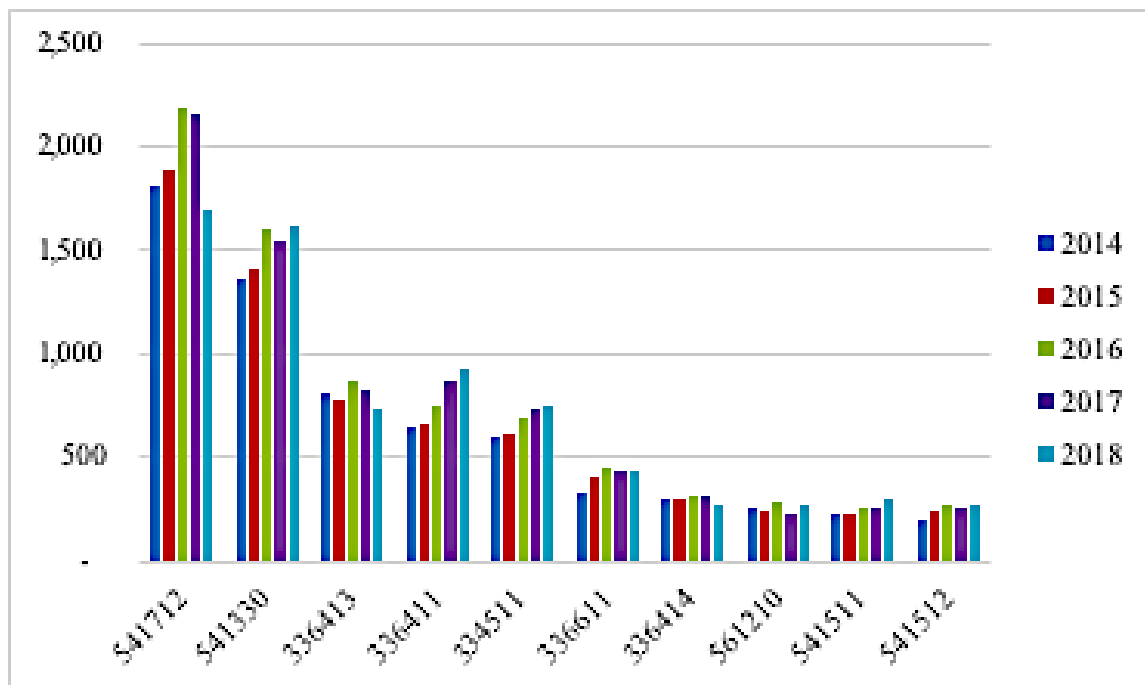
Figure 10. Comparison of the CPD Requirement for All Obligated Dollars over the CPD threshold, by the Top 10 Agencies, 2014–2018

In order to investigate this discrepancy, one can look to the U.S. Air Force Fiscal Year 2018 budget overview. The budget overview reveals that the Air Force invests heavily in non-commercial aircraft such as the F-16, F-35 Joint Strike Fighter, F22 Raptor, and B-21 long range strike bomber, including maintaining and modernization efforts.

What our research confirms is that the Air Force procures most of the DoD, NASA, and Coast Guard's share of requirements subject to CPD by both the count of actions obligated and by the sum of obligations. This is further reinforced given that Air Force contract actions subject to CPD make up over half of the procurement dollars over the CPD threshold. The following NAICS analysis makes additional correlations in this data.

4. NAICS Analysis

In order to find any concentration of burden for reporting cost or pricing data, statistical analysis identified the top ten NAICS codes with the largest number of contract actions subject to CPD, followed by the largest sum of action obligations. Figure 11 suggests that the largest industry burden for DoD, NASA, and U.S. Coast Guard is NAICS code 541712, Research and Development in the Physical, Engineering, and Life Sciences (Except Biotechnology).



Adapted from source information in Chapter III, Section B2.

Figure 11. Actions Subject to CPD, 2014–2018
(DoD, NASA, U.S. Coast Guard)

In order to ease the discussion of the analysis, Table 3 provides the industry description for the top ten NAICS codes with the highest count of contract actions subject to CPD, as identified in the reported FPDS-NG data fields.

Table 5. NAICS Code Descriptions. Adapted from Office of Management and Budget (2017)

NAICS Code	Description
541712	Research and Development in the Physical, Engineering, and Life Sciences (Except Biotechnology)
541330	Engineering Services
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing
336411	Aircraft Manufacturing
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
336611	Ship Building and Repairing
336414	Guided Missile and Space Vehicle Manufacturing
561210	Facilities Support Services
541511	Custom Computer Programming Services
541512	Computer System Design Services

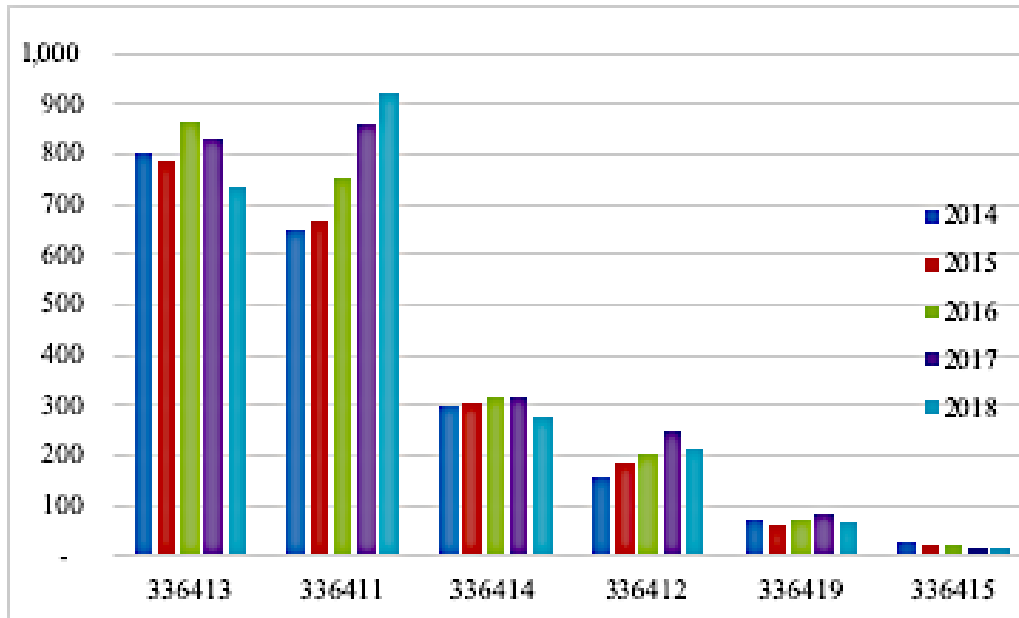
Based on Figure 11, it is logical to believe that attention should be focused on contract actions with a NAICS code of 541712. While 541712 appears to have the highest numbers of contract actions subject to CPD, it is of interest to note that three of the top 10 NAICS codes are in the aerospace industry. The NAICS manual (2017) defines the aerospace industry by NAICS codes beginning with 3364, “Aerospace Product and Parts Manufacturing” (Office of Management and Budget, 2017, p. 45).

While Table 3 identifies NAICS codes 336413-Other Aircraft Parts and Auxiliary Equipment Manufacturing, 336411-Aircraft Manufacturing, and 336414-Guided Missile and Space Vehicle Manufacturing, according to the NAICS Manual (2017), the aerospace industry also includes the following:

- 336412—Aircraft Engine and Engine Parts Manufacturing
- 336415—Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing
- 336419—Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing (Office of Management and Budget, 2017)

Figure 12 provides an analysis of the distribution of the CPD requirement within the aerospace NAICS codes. While NAICS code 336413 has maintained the highest count

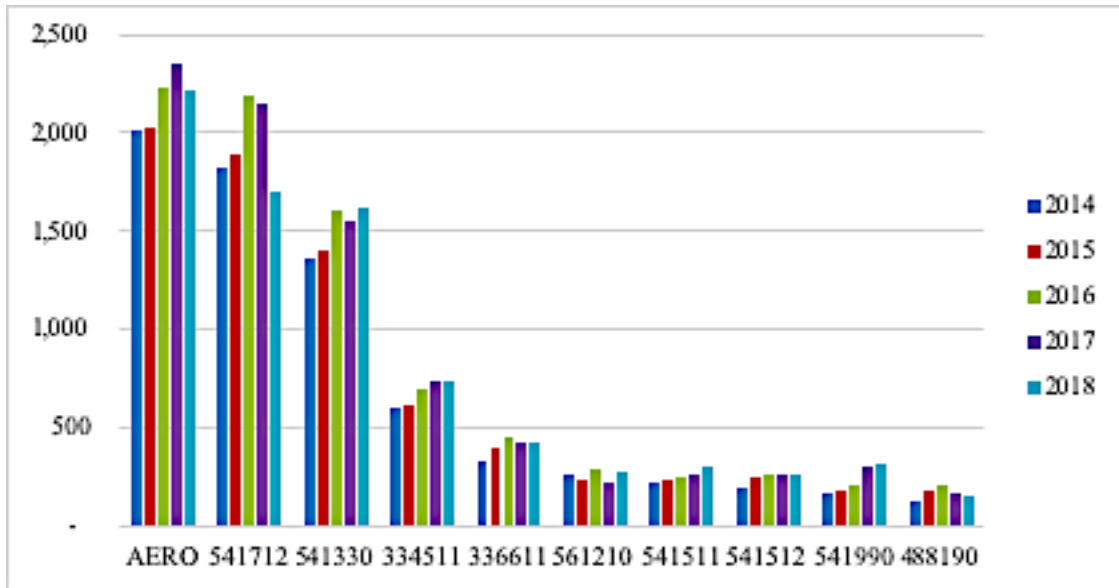
of contract actions subject to CPD, NAICS code 336411 has continued to rise over the past five years.



Adapted from source information in Chapter III, Section B2.

Figure 12. Contract Actions Subject to CPD, 2014–2018
(Aerospace Industry NAICS Codes)

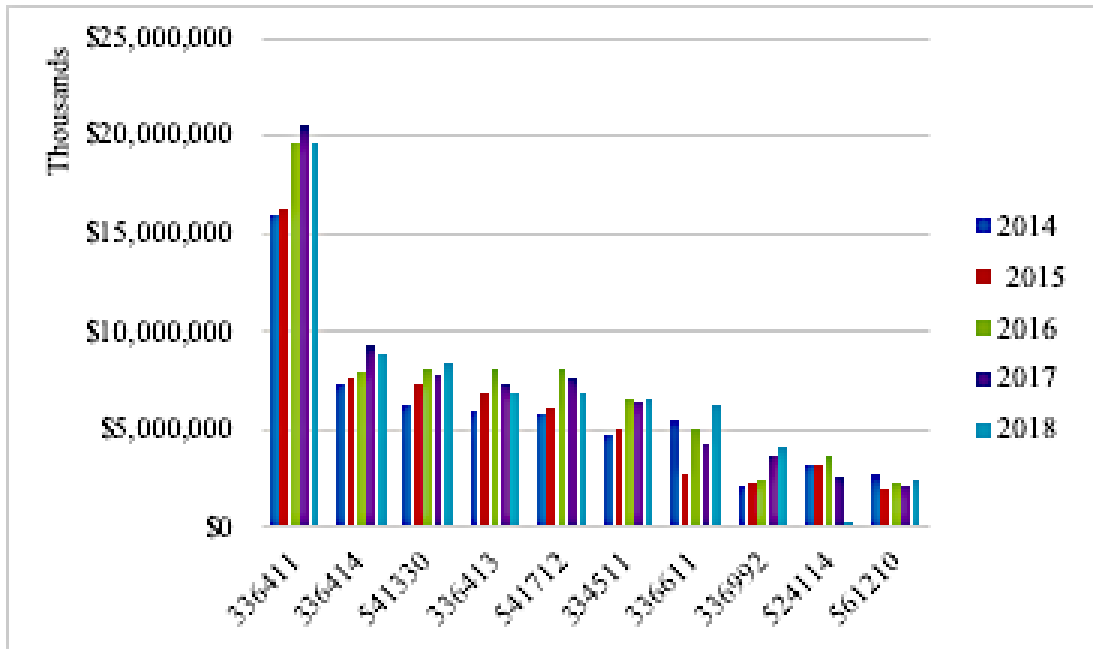
Consolidating the reported contract actions encompassing all six aerospace industry NAICS codes provides a significantly different picture of the distribution of the CPD requirement, as show in Figure 13. The aerospace industry combined shares the highest count of contract actions subject to CPD.



Adapted from source information in Chapter III, Section B2.

Figure 13. Comparison of Contract Actions Subject to CPD, by NAICS code, Adjusted to Combine Aerospace Industry (AERO), 2014–2018

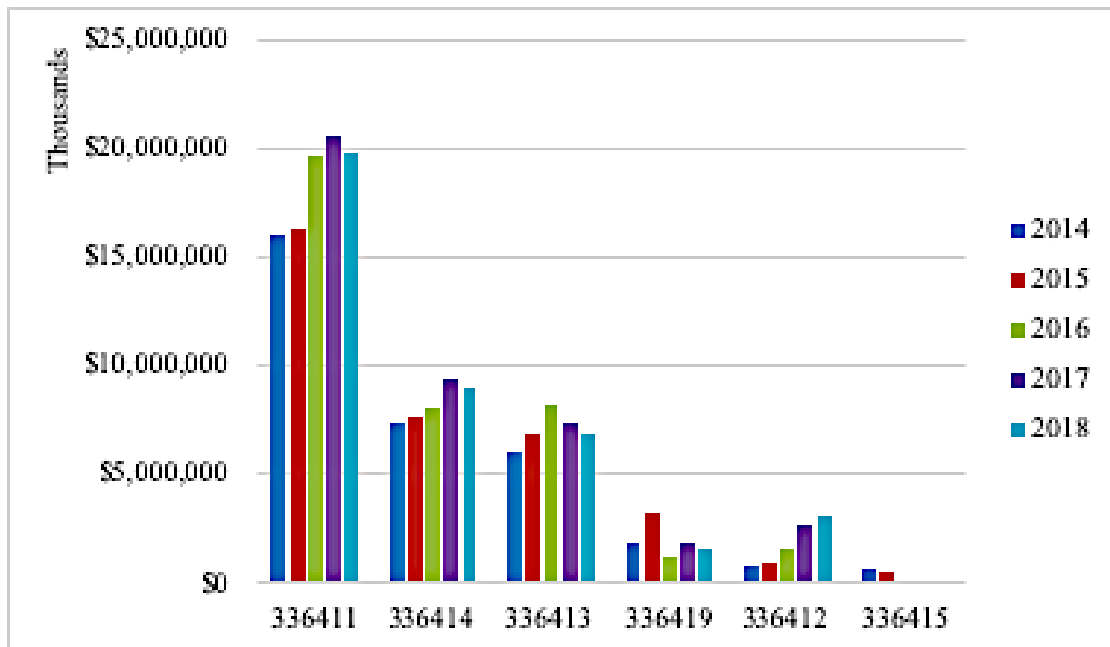
As with earlier analysis, it is useful to compare both the number of contract actions subject to CPD, but also the dollar values of the obligations. Figure 14 shows that the same top three aerospace NAICS codes are in the top 10, but 336411 moves into the number one spot and by a wider margin as compared to count.



Adapted from source information in Chapter III, Section B2.

Figure 14. Comparison of the Obligated Dollars of Contract Actions Subject to CPD Requirements by NAICS code, 2014–2018

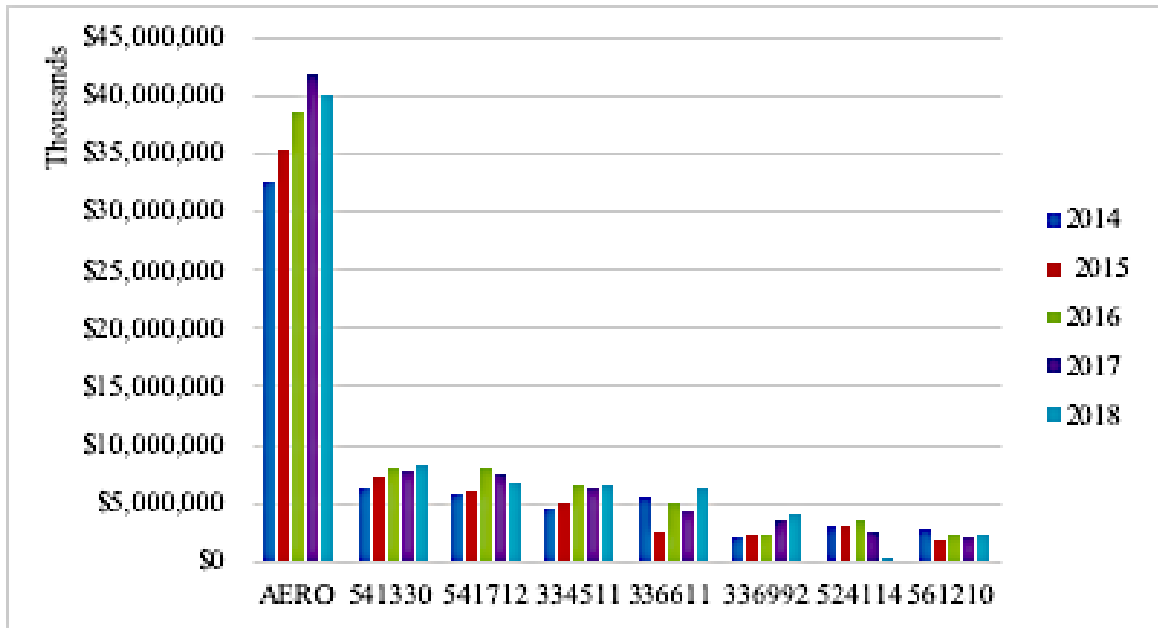
Using the same method of analysis used previously, the distribution within the aerospace industry by dollar value is illustrated on Figure 15. As compared to Figure 12, while NAICS code for aircraft parts (336413) had the highest count of contract actions subject to CPD, the NAICS code for aircraft manufacturing (336411) had the largest dollar value. This is not surprising given the nature of the procurements. It could be assumed that contract actions for aircraft parts would be at lower dollar values and higher volume, and conversely, that contract actions for aircraft manufacturing would be at higher dollar values and lower volume.



Adapted from source information in Chapter III, Section B2.

Figure 15. Contract Obligations Subject to CPD, 2014–2018 (Aerospace Industry NAICS Codes)

Continuing with the analysis by combining the six aerospace NAICS codes highlights the scope of applicability with respect to the obligated dollar values of the contract actions. Figure 16 illustrates an exponentially larger concentration of CPD requirements within the aerospace industry.

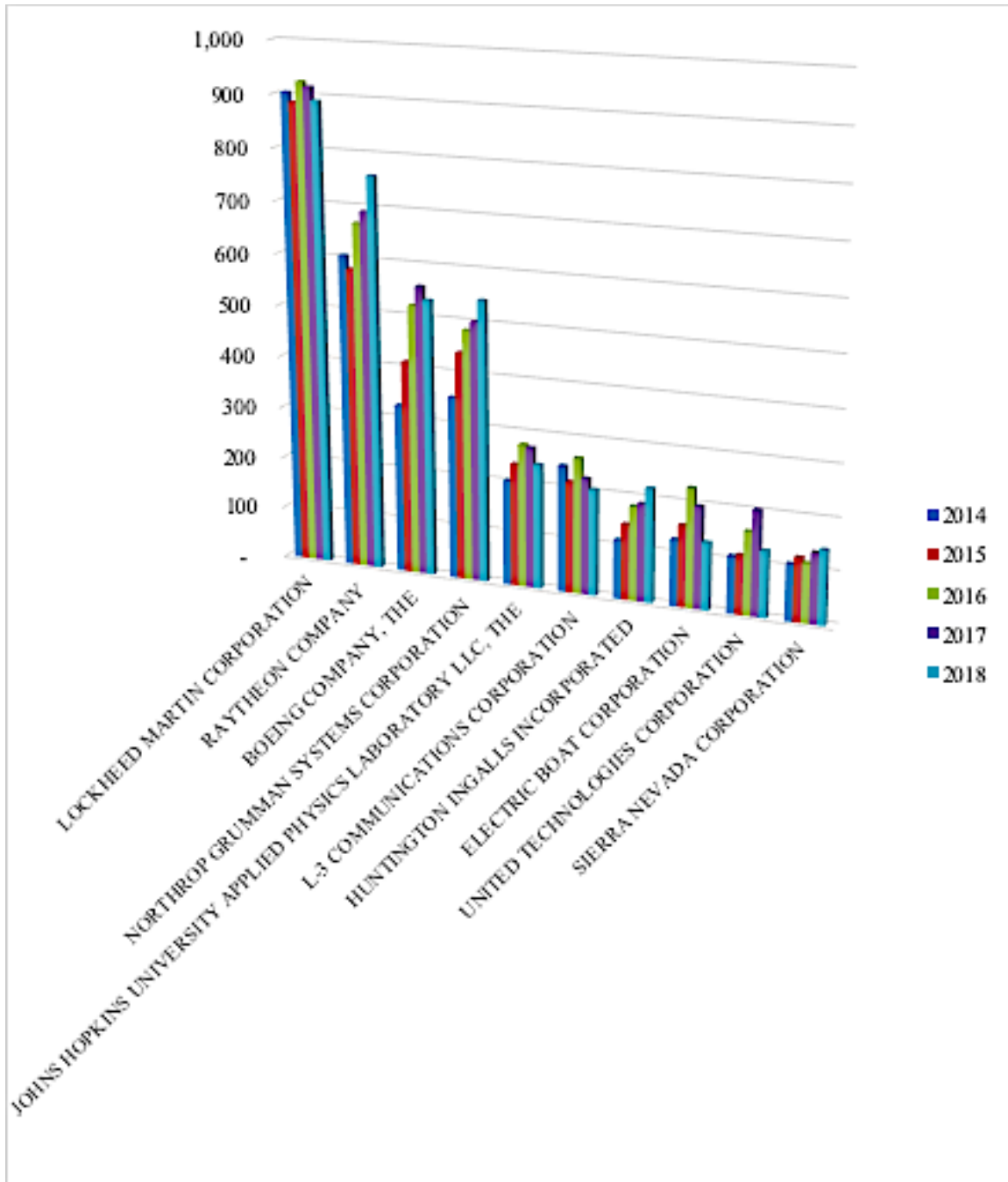


Adapted from source information in Chapter III, Section B2.

Figure 16. Comparison of Contract Obligations Subject to CPD, by NAICS Code, Adjusted to Combine Aerospace Industry (AERO), 2014–2018

5. Contractor Burden Analysis

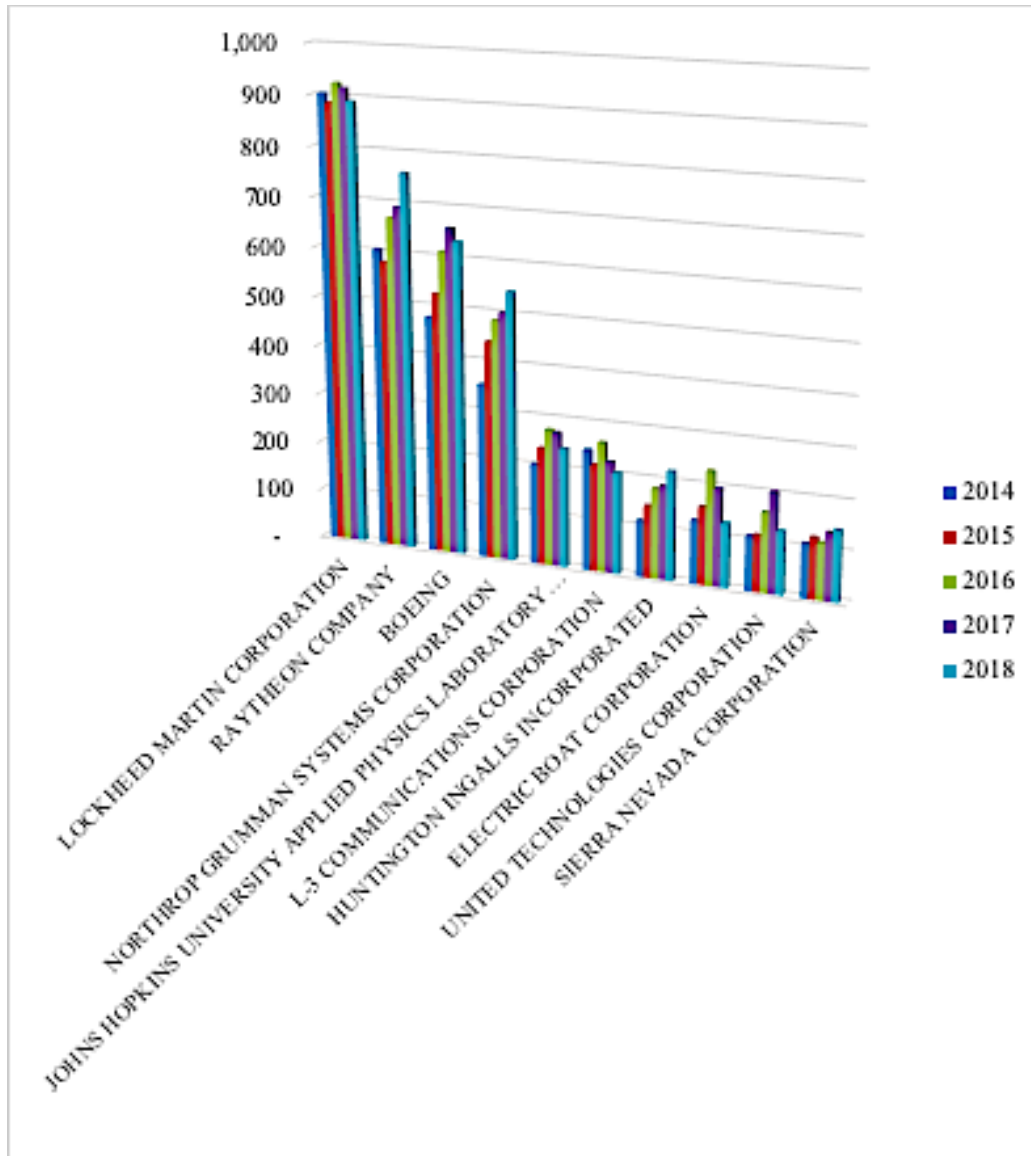
Figure 17 represents the top 10 contractors with the highest number of contract actions subject to CPD. While Lockheed Martin takes the top spot, the top four contractors together account for 70% of the number of contract actions.



Adapted from source information in Chapter III, Section B2.

Figure 17. Top 10 Contractors, Comparison of the Number of Contract Actions Subject to CPD, 2014–2018 (DoD, NASA, U.S. Coast Guard)

It is of interest to note that Boeing had two data sets, one labeled Boeing Company, The and one labeled The Boeing Company, the latter which fell just outside of the top 10 contractors at number 12. Upon sampling the last 10 contract actions awarded to Boeing and reported in FPDS-NG, both titles for Boeing report an identical Dun & Bradstreet global Data Universal Numbering System (DUNS) number, indicating that they are the same business unit (Dun & Bradstreet, 2019). A majority of the contract actions were reported under Boeing Company, The, with only an average of 110 contract actions per year reported under The Boeing Company. Figure 18 represents an illustration of how the burden changes when combining The Boeing Company contracts into one contractor.

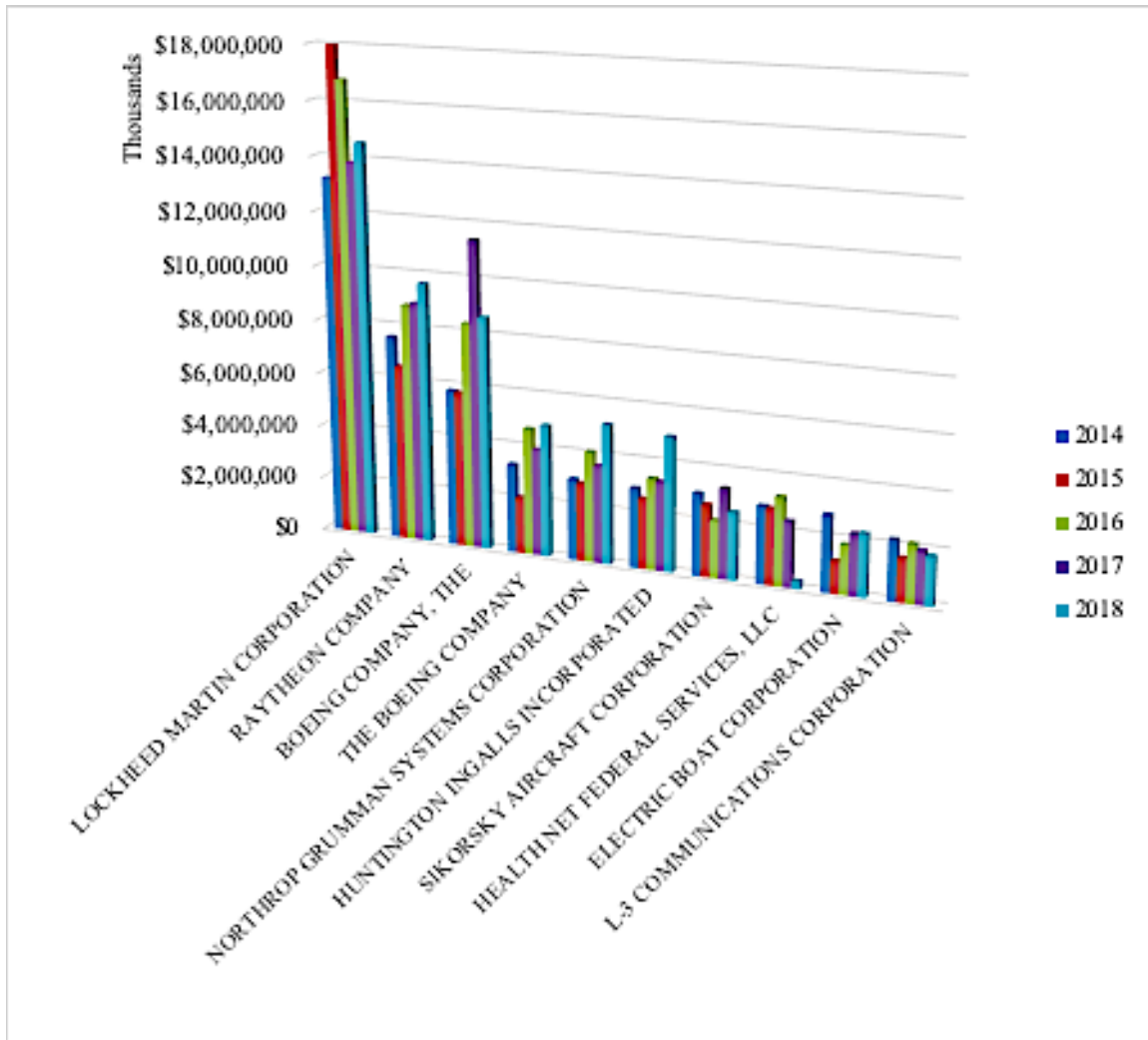


Adapted from source information in Chapter III, Section B2.

Figure 18. Top 10 Contractors (Boeing Combined), Comparison of the Number of Contract Actions Subject to CPD, 2014–2018 (DoD, NASA, U.S. Coast Guard)

It is not expected that combing all business units for the same companies would yield much different results. For example, United Technologies Corporation is owned by Lockheed Martin. Combining the two business units still puts Lockheed Martin in the top spot. Additionally, 98% of the contractors subject to CPD have less than 100 contract actions cumulatively over the five years combined.

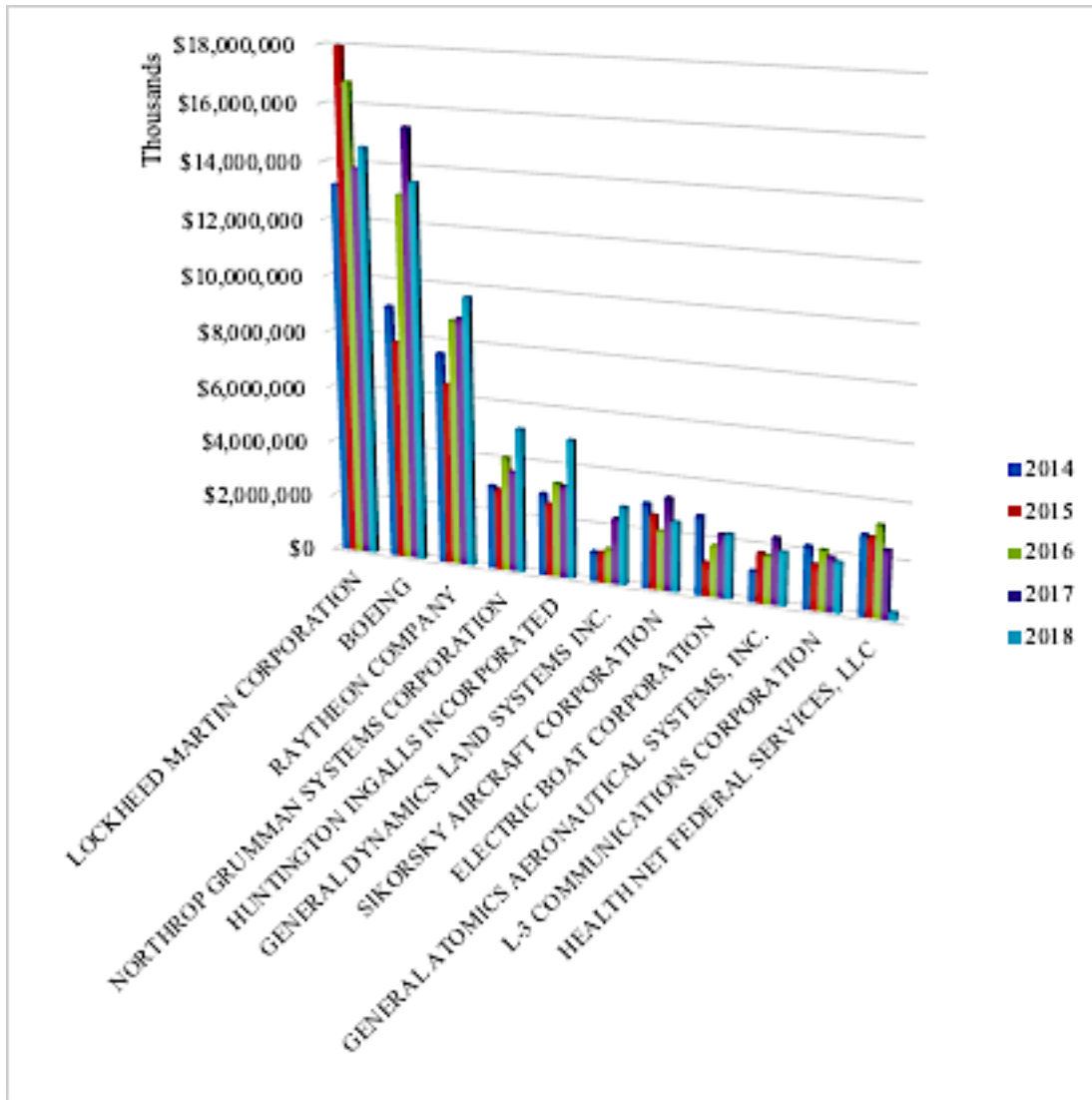
Continuing with the same methodology, Figure 19 illustrates the contractor burden by dollar value. Lockheed Martin retains the top spot and clearly has a larger volume of obligated dollars subject to CPD. As previously noted, this number does not include a combination of Lockheed's business units, so one could assume the actual burden would be larger. Boeing Company, The and The Boeing Company then fall together in the third and fourth spots. Similar to the count of contract actions, there is a heavy concentration of burden on only a small number of contractors. The top 10 contractors represent only .28% of the total contractors, yet the dollars obligated and subject to CPD of those top 10 represent over 54% the total dollars over the past five years.



Adapted from source information in Chapter III, Section B2.

Figure 19. Top 10 Contractors, Comparison of Contract Obligations Subject to CPD, 2014–2018

Figure 20 represents the same figures, combining “Boeing Company, The,” with “The Boeing Company.” Unsurprisingly, Boeing moves from the third and fourth spots into the second.



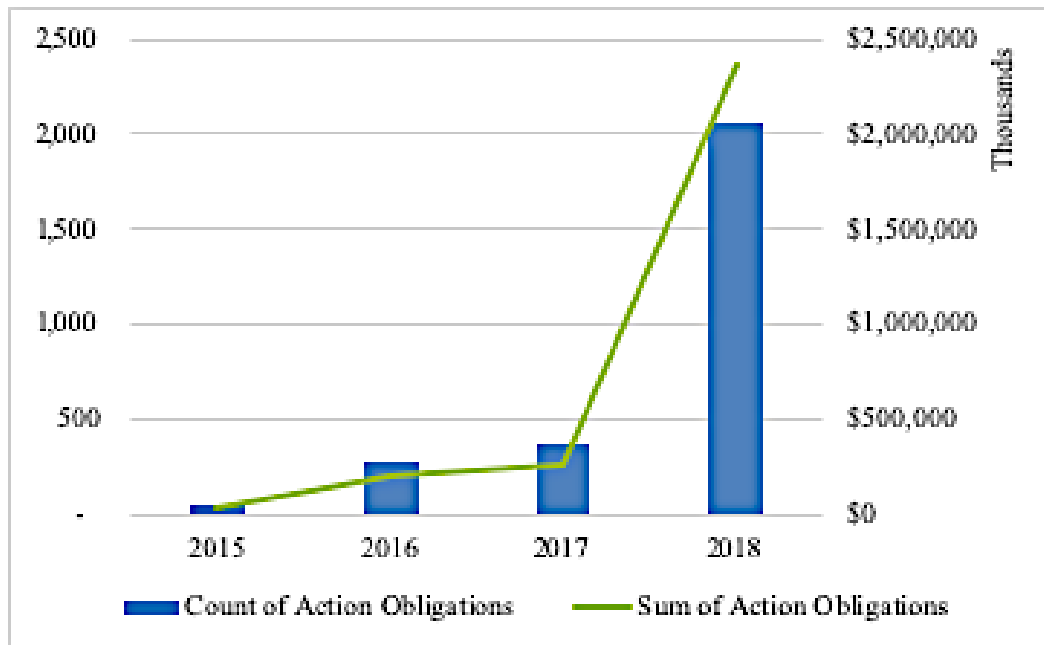
Adapted from source information in Chapter III, Section B2.

Figure 20. Top 10 Contractors (Boeing Combined), Comparison of Contract Obligations Subject to CPD, 2014–2018

6. Threshold Analysis

As noted in the methodology, the analysis includes identification of the number and dollar value of contract actions released from the requirement of CPD as a result of threshold changes within the last five years, beginning in 2015. The analysis found 3,493 contract actions which would have been subject to CPD (not competed, non-commercial), of which 2,756 were for DoD, NASA, or the U.S. Coast Guard. As previously noted, DoD,

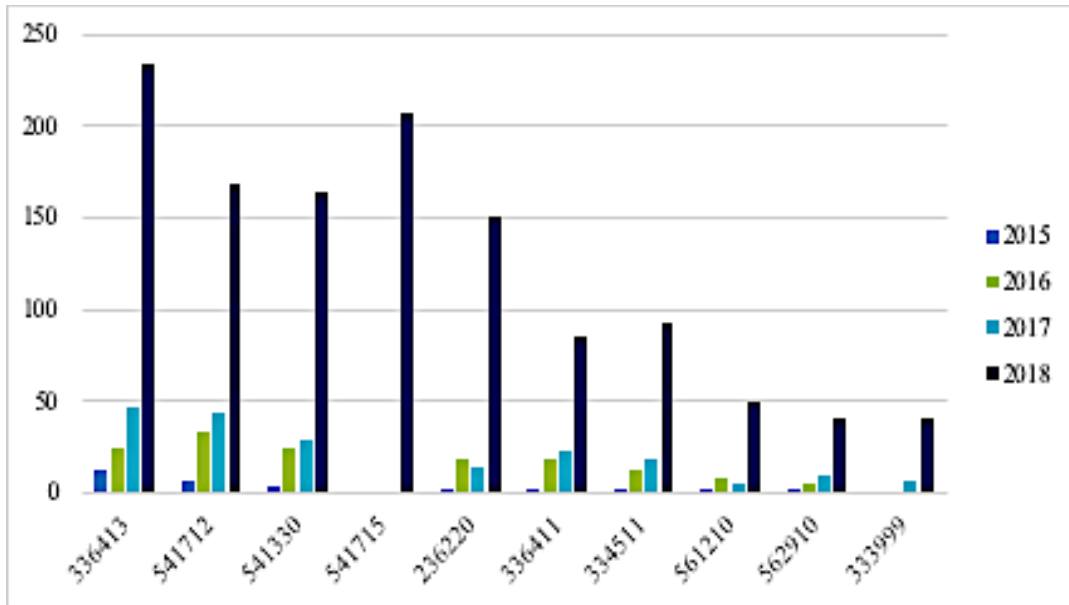
NASA and the U.S. Coast Guard share the largest share of the burden of the CPD requirement, so it would be reasonable to expect a larger impact due to threshold changes. Figure 21 reveals that the rise in thresholds did alleviate requirements for CPD. While the overall analysis shows a continual rise in the requirement, there would have been an even larger increase had the thresholds remain unchanged.



Adapted from source information in Chapter III, Section B2.

Figure 21. Contract Actions and Obligations no Longer Subject to CPD, Below-Thresholds, Not Competed, Non-Commercial (DoD, NASA, U.S. Coast Guard)

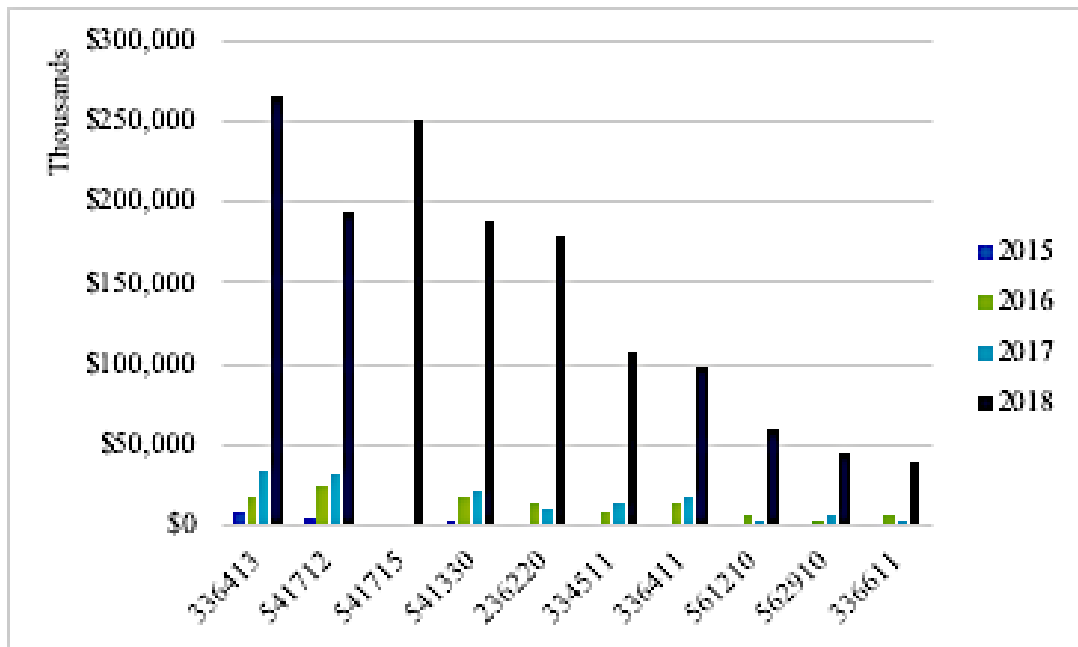
Figure 22 illustrates that, by NAICS code, the largest drop-off was to aircraft parts. Aircraft manufacturing also made the top 10 for impact to threshold change.



Adapted from source information in Chapter III, Section B2.

Figure 22. NAICS Code Comparison of the Number of Contract Actions no Longer Subject to CPD, 2014–2018 (DoD, NASA, U.S. Coast Guard)

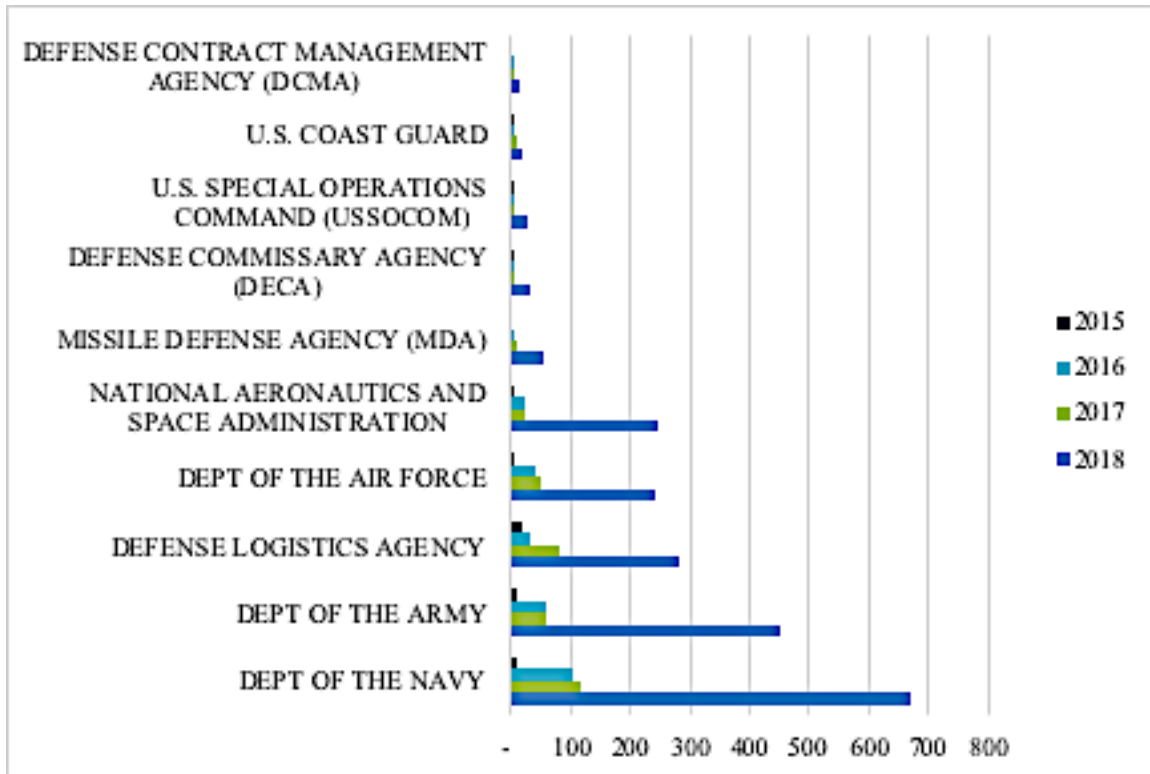
Figure 23 also shows that the largest dollar obligations no longer subject to CPD are also largest for the aircraft parts NAICS code, 336413.



Adapted from source information in Chapter III, Section B2.

Figure 23. NAICS Code Comparison of the Dollars Obligated no Longer Subject to CPD, 2014–2018 (DoD, NASA, U.S. Coast Guard)

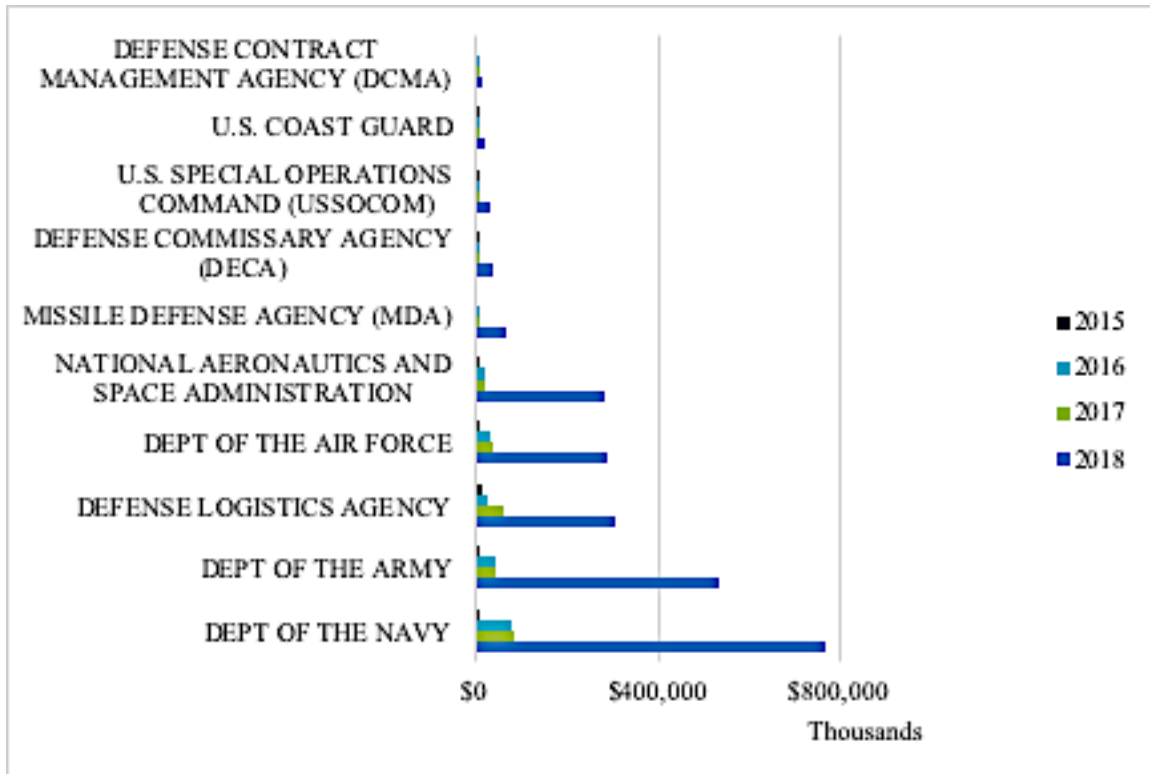
Up until this point, it has been clear that the Air Force has had the highest burden of contract actions and obligated dollars subject to CPD, with a corresponding burden to aircraft NAICS codes. The contract actions no longer requiring CPD included a large number and dollar value for aircraft parts. So what is interesting is that, as illustrated in Figure 24, the agency with the largest number of actions no longer subject to CPD was the Navy.



Adapted from source information in Chapter III, Section B2.

Figure 24. Agency Comparison of the Contract Actions no Longer Subject to CPD, 2015–2018 (DoD, NASA, U.S. Coast Guard)

Lastly, our threshold analysis includes a comparison of contract actions with obligated dollars that no longer require CPD. Figure 25 illustrates that the Navy also had the largest burden removed.



Adapted from source information in Chapter III, Section B2.

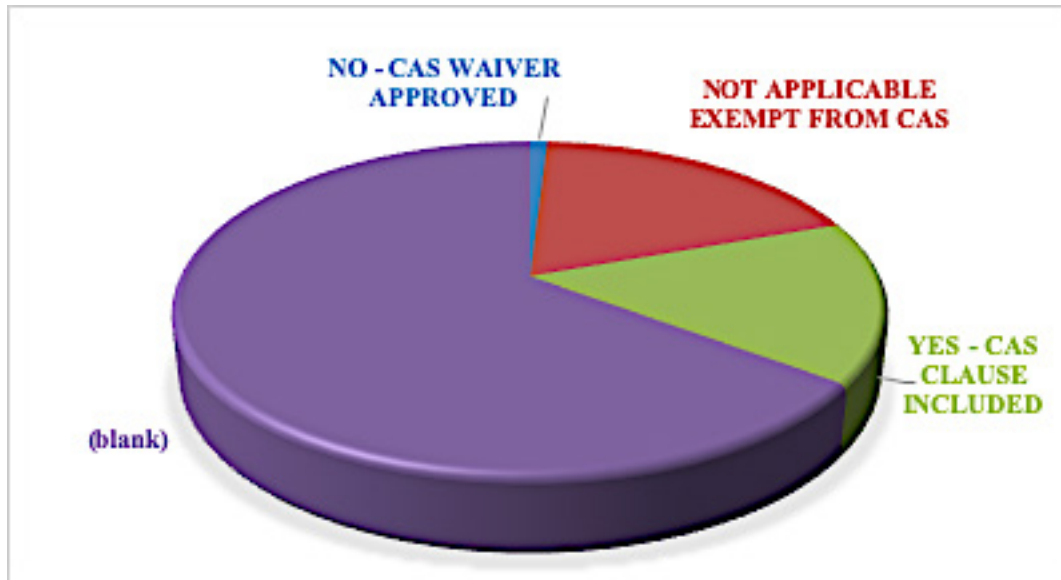
Figure 25. Agency Comparison of Obligated Dollars no Longer Subject to CPD, 2015–2018 (DoD, NASA, U.S. Coast Guard)

It is unclear as to why the Navy had the largest burden appear to be removed, as all prior analysis indicated it would be the Air Force. Due to the fact only six months of data covers the 167% threshold increase in 2018, a follow up study would be useful to determine long term or continued trends of the impact due to threshold changes.

7. CAS Coverage Analysis

An attempt was made to analyze the scope and applicability of CAS covered contracts, in order to see if a change in the CPD threshold has a corresponding impact to CAS coverage.

Figure 26 represents the percentage of contract actions which included CAS clauses in the contract. As we can see, the number of blank entries is 66%.



Adapted from source information in Chapter III, Section B2.

Figure 26. Percentage of Contract Actions with CAS Clause Indicator in FPDS-NG, 2014–2018 (DoD, NASA, U.S. Coast Guard)

Like the CPD requirement, the number of blank entries was analyzed for assumed exemptions, such as awards to small businesses, and did find that 33% of the blank entries were awards to small businesses. Unfortunately, CAS exemptions are not as clear cut as those for CPD, and cannot explain most of the blank entries.

When looking into the details of the blank fields, it appeared that almost, if not all, of the blank data fields were for task orders (TOs) or delivery orders (DOs) issued off of Indefinite Delivery-Indefinite Quantity (IDIQ) type contract, or Basic Ordering Agreements (BOAs). The FPDS-NG help states that the initial IDIQ or BOA will have a CAS clause indicator, but that the data field for subsequent TOs or DOs is not applicable (General Services Administration [GSA], 2019). Not only is it considered not applicable, but the data field is grayed out for TOs or DOs, and a contracting officer would be unable to override it. Considering the volume of IDIQs and BOAs issued each year, this will be a finding and we will provide a recommendation on accurately capturing this data for reporting purposes.

In addition to the blank data fields, it is also difficult to decipher the accuracy of the remaining data, as there are a number of exemptions which appear to be reported. For example, from 2014–2018, there are 1,672 contract actions indicating CAS clauses are present in the contract but are awarded to small businesses.

As the CPD threshold is only one part of a two-step process and contains a completely different set of exceptions, there are too many variables to identify any impact due to the threshold changes itself. For example, CAS contains a larger \$7.5 million exception to CAS coverage, that also includes a caveat that the exception is not applicable for businesses who are already performing under another CAS covered contract.

Due to the larger differences in the two regulations, to the number of blank entries, and to the contradictions in the application of the requirement with the data field itself, our results are inconclusive, and no further analysis is performed on CAS coverage. We provide a finding and recommendation on this topic.

D. CHAPTER SUMMARY

This chapter discussed the types of data that was gathered, the methodology applied, followed by the results of the analysis. The analysis shows that while the threshold has increased, thereby expanding the exception to obtaining CPD, the number of contract actions and value of contract obligations subject to CPD have also increased. We found that the Air Force has the largest share of both obligated dollars and contract actions subject to CPD, as well as the aerospace industry and a very few and concentrated number of contractors. The next chapter provides answers to research questions, summarizes findings and provides recommendations.

IV. FINDINGS AND RESULTS

The purpose of this chapter is to provide answers to research questions, summarize our findings and provide recommendations to improve future analysis on the CPD requirement and applicability. Our findings identified the current and ongoing need for CPD in today's environment, the impacts of CPD requirements, and inadequacies in government regulations relevant to contractual data collection and reporting.

A. RESEARCH QUESTIONS

1. Does the Government Still Benefit from Cost or Pricing Data?

We analyzed contract actions above the applicable CPD thresholds to examine the scope, trends, and impact of the requirement. We used this approach as a measure of the benefit the government receives in requiring CPD.

While a growing number of exceptions to the requirement suggests there would be a corresponding increase in contract actions and dollars obligated requiring CPD, our findings uncovered the opposite result. Over the last five calendar years, 2014–2018, the number of contract actions and the sum of obligated dollars requiring CPD have continued to rise.

This does objectively confirm that the government still has a need for and therefore still benefits from this requirement. The remaining answers to the research questions further justify the ongoing need for CPD, the importance of its application, and the relevance into today's government contracting environment.

2. What Are the Trends in Applicability of CPD, Historically and as a Result of Threshold Changes?

As discussed previously, there has been a growth in the overall applicability of the requirement for CPD. The analysis identified that the percentage of contract obligations subject to CPD is 25% for the entire federal government. The DoD, NASA, and U.S. Coast Guard alone have 30% of contract actions subject to CPD, as compared to all other federal agencies at 12%.

On the surface, it appears that threshold changes have had no impact to the requirement since both the count of contract actions and dollars obligated have continued to rise. Despite this fact, the analysis also identified 3,493 contract actions which would have been subject to CPD (not competed, non-commercial), had the threshold remained unchanged. Of those contract actions, 2,756 were awarded by the DoD, NASA, or the U.S. Coast Guard. It was expected that if there were an impact, the largest share of the impact would be to the DoD, NASA and the U.S. Coast Guard, as they also share the largest burden of the requirement throughout the entire federal government. The analysis objectively identifies that the rise in threshold did alleviate requirements for CPD, and there would have been an even larger increase had the thresholds remain unchanged.

3. Are There Concentrations of Industries, Agencies, or Contractors Most Impacted by This Requirement?

The analysis did confirm that there are concentrations of industries, agencies, and contractors impacted by this requirement, summarized as follows:

a. Industry

Our analysis identified that while NAICS code 541712, Research and Development in the Physical, Engineering, and Life Sciences (Except Biotechnology), appears to have the largest burden of the requirement, the aerospace industry had three NAICS codes in the top 10 for both count and obligated dollars. When combining NAICS codes for the aerospace industry, the analysis uncovers that this industry shares not only the largest burden by the count of contract actions, but an even larger and disproportionate burden by obligated dollars.

b. Agency

Our analysis identified that the U.S. Air Force has consistently held the majority of the burden for analyzing contracts subject to CPD by cumulative dollar value. We also found that the U.S. Air Force holds the largest burden of workload in analyzing CPD by the number of contract actions subject to CPD. Out of all Air Force contract actions greater

than the CPD threshold, more than half required CPD, as shown in Figure 10. This illustrates that the Air Force faces the highest risk and reliance on CPD.

c. Contractor

Our analysis identified that Lockheed Martin has the largest burden of both contract actions and obligated dollars subject to CPD, where the obligated dollars represent a disproportionate burden of the requirement to one contractor. This is not necessarily a surprising result given that Lockheed Martin’s 2017 annual report states, “In 2017, 69% of our \$51.0 billion in net sales were from the U.S. Government, either as a prime contractor or as a subcontractor (including 58% from the Department of Defense (DoD))” (p. 3).

Our analysis found a concentration of a small number of defense contractors subject to CPD as compared to all defense contractors. The top four contractors accounted for 70% of the number of contract actions. Additionally, 98% of the contractors subject to CPD had less than 100 contract actions cumulatively over the five years combined. It is interesting to note that the top 10 contractors represent only .28% of the total contractors, yet the dollars obligated and subject to CPD of those same top 10 contractors represent over 54% the total obligated dollars over the past five years.

4. Is the Original Purpose of CPD, and its Applicability, Still Holding True?

As previously mentioned, it initially appeared that CPD threshold changes had no impact on the burden of the requirement. The analysis showed that while the thresholds for CPD increased, the dollar value and count of contract actions subject to CPD also increased. This was of particular interest to our study because we expected to see the opposite hold true. One reason for this paradigm is likely due to the increase in federal procurement dollars spent. Snyder (2019) discusses how federal contract spending has increased by nearly six percent per year from FY 2014 through 2018. Federal contract spending in FY 2018 totaled \$560 billion, the highest level of spending since FY 2010 (Snyder, 2019). Andrew Taylor (2019) refers to the rise in federal contracting in his paper titled, “The revolution of federal procurement, 1980—present,” This increase in federal

procurement spending are a, “result of technology, global competition and security threats, ideological shifts, and fiscal changes” (Taylor, 2109, p. 27)

With this phenomena in federal contracting spending, technological advances, and globalization, CPD becomes an increasingly important factor to ensure the government is receiving a fair and reasonable price. Without CPD, contractors can withhold information from the government and not be held accountable for pricing inaccuracy. Agency theory comes into play where the government is the principal and the contractor is the agent (Rendon, 2010). The government and contractor have differing objectives in that the contractor is motivated by profit, therefore the government needs to ensure they are receiving a fair and reasonable price (Rendon, 2010).

CPD levels the playing field by allowing the government access to contractor records to provide insight into how prices were formulated. In the absence of competition, the government has no basis for price comparison to determine an initial base for negotiation purposes. Requiring CPD is extremely important in order to lower the government’s risk and, as required by FAR 15.402(a), the government must “purchase supplies and services from responsible sources at fair and reasonable prices” (Pricing Policy, 2019), in addition to fulfilling “public policy objectives” as stated in FAR 1.102(b)(4) (Statement of Guiding Principles for the Federal Acquisition System, 2019). Without CPD, the CO cannot verify accurate, current, or complete information needed “to exercise personal initiative and sound business judgment in providing the best value product or service” (Statement of Guiding Principles for the Federal Acquisition System, 2019). In addition, when CPD was not a contractual requirement, the outcome resulted in high levels of fraud, waste, and abuse (Maddox, 2013).

In summary, the government’s purpose for CPD and its applicability still holds true. While the contractor may face an additional reporting burden, the government ultimately pays this cost in the form of a cost premium. Since the government is ultimately bearing the entire cost, contractors should be inclined to follow the requirement.

5. What Is the Impact of Threshold Changes and Corresponding Relationship to CAS Coverage?

We were unable to determine if the CPD threshold changes had any corresponding relationship due to blank data fields, inconsistency in the reporting within the data fields, and due to the structure of CAS exemptions. These limitations are summarized as:

- The analysis showed that 66% of the data fields indicated a CAS clause was included in the contract but were left blank. Within the blank data set, over 67% of the contract actions represented over 33,000 individual contract actions awarded to large businesses on a non-competitive basis.
- It was difficult to decipher the accuracy of the remaining data, specifically because of exemptions that appeared to have been reported as CAS covered. As noted in the analysis, from 2014–2018, there were 1,672 contract actions indicating CAS clauses were present in the contract but were awarded to small businesses.
- The CAS threshold, that is tied to the CPD threshold, is only one part of a two-step process to determine CAS applicability, and CAS applicability has a completely different set of exemptions. There were too many variables to identify an impact due to the threshold change itself, such as the larger \$7.5 million exception to CAS coverage.

Due to the large differences in the two regulations, to the number of blank entries, and to the contradictions in the application of the requirement with the data field itself, as mentioned previously, our study results were inconclusive. We were unable to determine if the CPD threshold changes had any corresponding relationship, we provide a finding and recommendation regarding this topic.

B. FINDINGS AND RECOMMENDATIONS

Based on our analysis, we find there are several areas that deserve additional focus our attention.

1. Coopers and Lybrand's Study

a. Finding 1

The burden of CPD is often cited as a cost driver on government contracts. Cooper and Lybrand's 1994 study intended to capture the total cost impact of requiring CPD. What Cooper and Lybrand's 1994 study uncovered was a total cost impact of 1.3% that does not appear to be entirely accurate as discussed in detail in Chapter II.

The 1.3% cost premium was calculated as a percentage of the compliance cost divided by the "value added" cost, where the value-added cost was the total cost less material, subcontracts, profit, and G&A expenses (Coopers, Lybrand, & TASC, 1994, p. 4). This number is misleading, since multiplying a burden of 1.3% against a total cost would go against the methodology of the study and result in an inaccurate result.

Additional issues with the Coopers and Lybrand's study (1994) were identified in that only 10 contractors were selected to determine the cost impact, and one of the 10 did not provide CPD but was still included in the results. Another problem is in the way the percentage of total impact is presented. The 1994 study identifies that DoD faces an 18% cost premium, where the top 10 cost drivers are presented as 48.9% within the 18%, and TINA cost impacts are 7.3% of the 18% (Coopers, Lybrand, & TASC, 1994). This study was also performed 25 years ago and references a very large burden to contracting personnel. This large burden to contracting personnel would be less significant today given advances in technology, electronic business systems, and contracting software.

b. Recommendation 1

We recommend that GAO perform an updated study with attributes similar in nature to the Coopers and Lybrand study of 1994, but utilizing current data and analysis techniques. From what we could find, there are no more recent studies of this type on CPD. The Coopers and Lybrand study is outdated due to advances in technology. The technology that it used to gather, collect, and analyze data has evolved significantly over the last 25 years. GAO is the recommended source because they are a government agency that can perform an updated study on behalf of the entire government and have the same vested

interest under FAR 1.102(a) in “maintaining the public’s trust and fulfilling public policy objectives” (Statement of Guiding Principles for the Federal Acquisition System, 2019).

A new study will provide more transparency as to the true cost premium the government pays for regulatory compliance, and if that cost is shared by the contractor or solely passed onto the government.

2. Proposed Rule Change

a. Finding 2

DoD, GSA, and NASA proposed rule 2017–006 to the FAR incorporating Section 822 of the NDAA, Enhanced Competition Requirements (Regulations.gov, 2018). As noted in Chapter II, the objective of the proposed rule change is to narrow the current CPD exemptions regarding adequate competition down to only two competing and viable offers, which aligns to the passed legislation of the NDAA.

As discussed in Chapter II, both the AIA and NDIA take objection to the proposed rule stating that it creates additional burden on contractor resources. Despite this assertion, the proposed change benefits the government by increasing the government’s price confidence in a market with limited competition.

b. Recommendation 2

We recommend the FAR council revise the applicable federal regulations to incorporate the proposed change. Our research clearly shows DoD, NASA, and Coast Guard procure the largest volume of requirements that are non-commercial, non-competitive, and subject to CPD. Based on this, we find the rule is warranted, and our analysis helps to clearly identify the importance and impact to the acquisition community.

3. FAPIIS Reporting

a. Finding 3

This study uncovered what appears to be a flaw in the reporting mechanism for defective pricing cases. The following regulations are currently in place:

- Per FAR 9.103, federal government contract awards shall only be made to responsible contractors (Policy, 2019).
- Per FAR 9.104-1, responsibility includes past performance (General Standards, 2019).
- Per FAR 9.104-6(b)(1), “When making a responsibility determination, the contracting officer shall consider all the information available through FAPIIS” (Federal Awardee Performance and Integrity Information System, 2019).
- Per FAR 9.105-2(b)(2)(i), “The contracting officer shall document the determination of nonresponsibility in FAPIIS” and “within 3 working days” as stated under FAR 9.105(b)(2)(ii) (Determinations and Documentation, 2019).
- Per FAR 42.1503(g), agencies shall use information in FAPIIS when considering “past performance information” (Procedures, 2019).
- Per FAR 42.1503(h)(1), agencies shall report final determinations for defective cost or pricing data in “FAPIIS module of CPARS within three calendar days” (Procedures, 2019).

Given the extensive requirement to report and evaluate instances of defective pricing, it is curious to note that there is not one case documented in the FAPIIS module of CPARS over the last five years. As noted in Chapter II, it is unclear if this missing data is due to a lack of accuracy in reporting by the cognizant CO, if defective pricing cases are settled by an agreement outside of a CO’s final determination, or if defective pricing cases fell outside of the statute of limitations. In any case, this leads us to believe that the intent of these reporting regulations is not being met, and FAPIIS is not current, accurate, or complete with respect to any defective pricing cases.

b. Recommendation 3

Considering the sizable lack of information on defective pricing reported in FAPIIS, there are many recommendations that could shed light on this issue. We propose six possible recommendations to facilitate reporting, solve issues for not reporting, and to provide transparency to government personnel in need of this information.

First, have GAO perform a new study on the actual number of defective pricing cases, to include statistics on actual cases closed, cases pending, cases negotiated which do not have a demand letter from a Procuring Contracting Officer (PCO), or those with cases which expire as they run past the statute of limitations. With this information, GAO may also be in the best position to identify the root cause of the reporting, or lack of reporting, in FAPIIS. If a root cause is identified, a path forward for enforcing defective pricing reporting may be found. Having accurate information allows COs to make informed business decisions with respect to responsibility determinations, as required by the FAR.

Second, add a requirement for DoD COs to upload DCAA audit reports for defective pricing into Contractor Business Analysis Repository (CBAR), either in a stand-alone location or attached to the relevant contractor record. There is currently no way for DoD COs to obtain information on audit reports outside of individually reaching out to DCAA offices. Although some DCAA audit reports are centrally located in DCMA's Contractor Audit Follow Up (CAFU), they are only available to a PCO's individual agency, and access is often limited to one point of contact without clear instruction of how or when to look for audits. If the process of uploading DCAA audit reports into CBAR comes to fruition, we recommend adding language to the DFARS to check CBAR for this past performance information, in addition to FAPIIS records.

Third, modify the language in FAR 42.1503(h) to provide additional guidance as to what constitutes a CO final determination. As it stands, one could assume a final determination would be an agreed upon amount which would be settled either by demand letter or business clearance memorandum if incorporating as a price adjustment into a future procurement. As there are absolutely zero reports in FAPIIS, it is unclear how agencies are currently defining final determination. While it would be an optimistic view that no contractors have violated CPD regulations, it is highly unlikely given the volume of contractors, contract actions, and awarded obligations.

Fourth, each individual agency needs to immediately identify a way to collect information on the occurrences of defective pricing, to include whether resolution occurred (in any form, legal or negotiated). This information may help identify on a broader scale how widespread the problem is and allows agencies to identify contractors with recurring

defective pricing that gets negotiated into future contract actions. Recurring defective pricing causes concern for a contractor's estimating system since this information should be readily available for use. .

Fifth, include a data field in FPDS-NG to indicate whether the contract action was in any way related to the remedy of defective pricing, although a significant barrier to implementing this change is that CAR information is generally available to the public. Contractors would more than likely oppose this action since the number of contract actions in relation to defective pricing would then become public.

Sixth, if no changes are made and no resolution can be found, we recommend removing the requirement to report in FAPIIS. As it stands now, the fact that no reports are in FAPIIS indicate that there is no adverse past performance regarding defective pricing, which is misleading. A CO may be awarding to a contractor who actually does have adverse past performance issues which are just not visible to them as they are not reported.

4. DCAA Reporting

a. Finding 4

In reviewing the required DCAA 2017 Report to Congress, we uncovered all post-award CPD compliances were reported in a category called Other Audits. Though the same DCAA report estimated nearly \$1 billion in Other Audits, it was considered insignificant in comparison to DCAA's total annual audit volume of \$281 billion. Falling into the lowest priority workload category for DCAA, the report did not go into any depths of analysis or detailed information for us to further our study.

b. Recommendation 4

We recommend that DCAA include detailed information in the "other audits" category on future reports. Without information detailing the number or frequency of defective pricing cases, along with the dollar amount pertaining to each non-compliance, we have no insight or transparency as to the cost impact to the government.

Having the details on defective pricing reports, we can narrow the findings to industries, contractors, and even impacted agencies. If the government can obtain the noted

information, we can better allocate our limited resources which results in an overall cost savings.

5. Agency Collection Activities

a. Finding 5

During the course of our study, we reviewed a CPD burden report put forth by the FAR that presented the hours spent by contractors and subcontractors executing the CPD requirements. The data from FPDS-NG was gathered and analyzed to produce the information. The FAR report identified 39,425 respondents, where 9,759,820 total hours were spent by the stakeholders to fulfill CPD requirements. To expand our understanding of the results, we reached out to the point of contact for further details, but we found the data to be unsupported and inadequate for further analysis. Additionally, the Professional Services Council responded in a public comment to the report, insisting the data collection activity was not necessary and claiming the results are incorrect (PSC, 2017).

b. Recommendation 5

First, we recommend the FAR cease the agency collection information activities as it relates to CPD requirements because the details behind the analysis cannot be disclosed or explained.

Second, if the FAR continues to report on this issue, for the purposes of data validation, the FAR report division should allow access to the details behind the study. Like all study results, validation of findings is necessary to ensure agreement with methodology used. This reduces the uncertainty and dubiousness in the results presented by the division.

6. FPDS-NG Inaccuracies (Blanks, Commercial w/CPD)

a. Finding 6

Although deemed insignificant for the purpose of our study, FPDS-NG blanks entries captured through data entry by the reporting agencies are a concern. We provide six recommendations to address this issue.

b. Recommendation 6

First, we recommend individual agencies should ensure that COs responsible for FPDS-NG data accuracy are fully knowledgeable on the FPDS-NG data fields to enter accurate and complete information.

Second, FPDS-NG allows for a validation to be run prior to approving the records existence. The validation check should include all FPDS-NG fields and disallow finalization if any field is blank.

Third, when agencies are certifying annually that their FPDS data reporting is accurate, audits must be conducted by senior contracting officials that understand the FPDS-NG fields. They must understand how entries flow down from the reference Indefinite Delivery Vehicle (IDV) contract to the Task Order and Delivery Order and how entries correspond to the contract action.

Fourth, FPDS-NG training needs to be mandatory and completed by agency personnel prior to inputting data into FPDS-NG. FPDS-NG currently has training resources on its website that should be utilized.

Fifth, the GSA manager of FPDS-NG should investigate the large volume of blank entries to determine what this represents and if an additional field is warranted, or if the blanks should be disallowed as recommended.

Sixth, if an administrative specialist is performing FPDS-NG entries for the CO, this person should ensure the CO has verified the FPDS-NG record prior to approving the contract action.

7. CAS Threshold Analysis

a. Finding 7

As discussed previously in this chapter, and in Chapter III, it is cause for concern that 66% of the data fields indicating a CAS clause was present were blank. Given the fact contract TOs and DOs often have entirely different contract numbers and would still be subject to the requirement for CAS coverage, it is unclear why this information is considered not applicable, according to the FPDS-NG help (GSA, 2019). It would be useful

for this data field to flow through to TOs and DOs, as it does for contract actions requiring CPD.

For the purpose of our analysis, it is unclear from the entire data set on what other exemptions may be present, such as awards under \$7.5 million and the contractor currently performing a contract subject to CAS. Other contract actions that should be exempt had indicated CAS clauses were present, such as awards to small businesses. By setting alternate exemptions, there are many cases where CPD is required yet not CAS covered. In fact, almost 88% of the contract obligations over the CPD threshold in the last five years are under \$7.5 million.

As the initial CAS threshold is only one part of a two-step process, and CAS applicability has a completely different set of exemptions, we were unable to determine if changes to the CPD threshold had any corresponding impact, solely attributable to the threshold change.

b. Recommendation 7

First, we recommend FPDS-NG needs to allow the CAS clause indicator to flow through to resulting TOs or DOs, as it does for CPD. This allows transparency in the true scope of the requirement, without having to spend significant time tracking down a parent IDIQ or BOA with a different contract number. This facilitates both reporting and analysis and be more consistent with other data fields that flow down to TOs and DOs.

Second, because a larger study of CAS falls outside of the scope of the study on CPD, we recommend a subsequent study and analysis of CAS applicability and exemptions, to see if the original intent and applicability still applies when tied to the CPD threshold should be conducted. Given that 66% of the CAS clause indicator fields were blank, this study would be better suited to occur after FPDS-NG links the data field to the subsequent TOs and DOs.

C. CHAPTER SUMMARY

This chapter provided answers to the research questions, summarized our findings and provided recommendations that improves future analysis on the CPD requirement and

applicability. Our findings identified the current and ongoing need for CPD in today's environment, the impacts of CPD requirements, and identified inadequacy in government regulations relevant to contractual data collection and reporting. The following chapter provides an overall summary of our study of CPD.

V. SUMMARY

This chapter presents an overview and purpose of our study. We provide a brief summary about the literature used in addition to summarizing our results, findings, and recommendations regarding our CPD study.

A. OVERVIEW

We began this study to examine how the scope and applicability of the CPD requirement may have changed over the years due to a changing landscape surrounding the requirement. We wanted to examine if the government still had a need, or benefit, to obtaining this data that facilitates information exchange and levels the playing field. We hypothesized that as the threshold increased, we would see a corresponding decrease in the requirement, but what we found was the opposite was true.

It initially appeared that CPD threshold changes had no impact on the burden of the requirement. Our analysis showed that while the thresholds for CPD increased, the dollar value and count of contract actions subject to CPD also increased, we expected to see the opposite hold true. The reason for this anomaly is likely due to the increase in federal procurement dollars spent. With the rise in federal contracting, technological advances, and globalization, CPD becomes an increasingly important factor to ensure the government is receiving a fair and reasonable price.

B. LITERATURE REVIEW

We analyzed the current landscape in the literature review, studies, and laws surrounding the CPD requirements. Our review incorporated current and past laws to present historical events and impacts to CPD. Using available literature, government databases, and the World Wide Web, we collected adequate CPD material for this study. However, our results revealed some outdated CPD studies and reports to date. Certain results from previous studies are questionable and lack details, and therefore we did not incorporate those findings into our analysis. Our analysis identified key requirements of CPD and reasons for its existence, including a glimpse at the pros and cons of the

regulations. We also recommend the applicable government entities update their studies appropriate to the current environment.

C. STATISTICAL ANALYSIS

To help answer our research questions, we performed statistical analysis to identify objective trends in industries, agencies, and contractors, to see if any were more burdened by this requirement than others. In summary, we found the following:

- The DoD, NASA and U.S. Coast Guard shared the highest burden of the requirement for CPD when compared to other federal government agencies.
- The Air Force had the highest burden of the CPD in terms of the number of contract actions and the obligated dollars over the last five years.
- Out of the Air Force budget in excess of the CPD threshold, it procured more contract actions subject to CPD than not.
- The aerospace industry shares the highest burden of CPD requirements in terms of the number of contract actions, and shares a disproportionate burden of the requirement in terms of obligated dollars.
- The requirement for CPD is concentrated amongst a very limited number of defense contractors, where 98% of the contractors each had less than 100 contract actions subject to CPD over five years combined.
- Dispersion of contractors against the whole is highly skewed, where the top 10 contractors represent only .28% of the total contractors, yet for those same contractors, the dollars obligated and subject to CPD represent over 54%.
- Threshold changes did have an impact on the CPD requirement. While the number and obligated dollars requiring CPD have increased, there was a corresponding increase in government spending (Snyder 2019). Had the

threshold not changed, there would have been over 3,000 more contract actions subject to CPD. We also see a dramatic impact for 2018, as the threshold increased to \$2M. We anticipate a continued pattern of applicability after 2018.

D. FINDINGS AND RECOMMENDATIONS

We provided detailed findings based on our research and recommended courses of actions in Chapter IV. What we found were outdated studies, objections to regulations, flaws in reporting in both FAPIIS and FDPS-NG, lack of transparency in reporting, inefficiencies in data collection activities, and questions as to the appropriate use of the CPD threshold as a CAS threshold.

1. Coopers and Lybrand study: We found that the study is outdated, was performed with antiquated methodology, and contains misleading calculations. We recommend an updated study be performed by GAO.
2. Proposed Rule Change: We found that contractors had objection to a proposed FAR rule that would align the FAR with the U.S.C. We recommend continuing with the proposed rule change.
3. FAPIIS Reporting: We found that there are significant reporting deficiencies in FAPIIS. We recommended multiple courses of action to correct the deficiency, as it is a FAR requirement to both check it and report to it.
4. DCAA Reporting: We found that while DCAA annually reports information on audit activities, there is a lack of transparency with regard to CPD audits. We recommend adding detail to the annual reporting, which facilitates transparency. We also recommend additional dissemination of reports to CBAR.
5. Agency Collection Activities: We found that while the FAR collects information on the burden of CPD requirements, there is no methodology

included, and no way to verify the results of the study. We recommend providing either methodology or calculations to verify burden or remove the data collection activity altogether.

6. FPDS-NG inaccuracies: We found the number of blank entries in FPDS-NG concerning, as per FAR 4.6 this data is used heavily by all government agencies for studies and reporting (Contract Reporting, 2019). We recommend FPDS-NG make all data fields required and ensure proper agency reporting.
7. CAS Threshold: We found difficulties in tying the impact of the CPD threshold changes to that of the corresponding CAS threshold. We recommend adding constraints to the FPDS-NG data fields, to require all data fields, thereby eliminating blanks. We also recommend additional study and analysis to determine the applicability and exemptions in order to verify the appropriateness of tying the CAS threshold to the CPD threshold.

E. CONCLUSION

In conclusion, while there has been consistent resistance to requiring CPD, mainly from government contractors, what our study has proven is that the government still unquestionably benefits from CPD, as supported by our analysis.

Through the constant changing environment, CPD still remains an important aspect in government contracting, especially within the DoD, NASA and U.S. Coast Guard. The CPD requirement still levels the playing field, and still holds contractors accountable for fair and reasonable prices, as originally intended and as required to “conduct business with integrity, fairness, and openness” and to “fulfill public policy objectives” (Statement of Guiding Principles for the Federal Acquisition System, 2019).

Without any doubt, we can positively see the need for CPD based on historical trending of contracts awarded to certain major defense contractors. As our study proves, even with increases to the CPD thresholds, government contract actions and values have also increased.

What our study ultimately and objectively confirms is the continued need for CPD in government contracting and the government still benefits, as originally intended.

F. CHAPTER SUMMARY

In this final chapter, we summarized the overview, literature review, statistical analysis, finding and recommendations, and our conclusion for this joint applied project report titled, A Study of Certified Cost or Pricing Data.

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