



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

---

**JOINT APPLIED PROJECT**

---

## **AN ANALYSIS OF FISCAL YEARS 2014 TO 2016 NAVY FOURTH QUARTER SPENDING: TRENDS AND CHARACTERISTICS OF Q4 O&M CONTRACTUAL AWARDS**

---

**September 2017**

**By: Christina I. Manol  
Shahaadah C. Nalls  
Justin R. Scharber**

**Advisors: Brad Naegle  
Victor Hernandez**

*Approved for public release. Distribution is unlimited.*

THIS PAGE INTENTIONALLY LEFT BLANK

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
<b>1. AGENCY USE ONLY</b> (Leave blank)	<b>2. REPORT DATE</b> September 2017	<b>3. REPORT TYPE AND DATES COVERED</b> Joint applied project		
<b>4. TITLE AND SUBTITLE</b> AN ANALYSIS OF FISCAL YEARS 2014 TO 2016 NAVY FOURTH QUARTER SPENDING: TRENDS AND CHARACTERISTICS OF Q4 O&M CONTRACTUAL AWARDS			<b>5. FUNDING NUMBERS</b>	
<b>6. AUTHOR(S)</b> Christina I. Manol, Shahaadah C. Nalls, and Justin R. Scharber				
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A			<b>10. SPONSORING / MONITORING AGENCY REPORT NUMBER</b>	
<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB number ____N/A____.				
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release. Distribution is unlimited.			<b>12b. DISTRIBUTION CODE</b>	
<b>13. ABSTRACT (maximum 200 words)</b>  Former United States Under Secretary of Defense Robert Hale stated in a September 2016 article for Breaking Defense, "We need to find practical ways to apply the brakes to year-end spending so that [the Department of Defense] funds only its highest-priority needs." This paper analyzes trends and characteristics of the Quarter 4 (Q4) Navy spending habits driving the government's decisions and the related impacts of those decisions. Previous trends have shown that under-execution in the government leads to future funding decrements. Although seldom documented, this practice leads to increased late spending and a potential for executing ahead of need, but results in an obligation of funds. Our research identifies trends across contractual spending in the Navy Operations and Maintenance accounts between fiscal years 2014 and 2016 to help ensure the government is getting the best value for the limited resources available. Analysis indicated that actual Q4 spending appears higher than historical rates, in excess of 35% in all years. We also noted trends in Q4 spending leading to an increased level of Indefinite Delivery Contracts, and a significant increase in overall contract actions processed. Surprisingly, even with the rush to obligate, 2014 data showed Q4 obligations trended higher than average utilizing Full and Open Competition.				
<b>14. SUBJECT TERMS</b> Department of the Navy, appropriations, spending, contracts, operations and maintenance, fiscal, Anti-Deficiency Act, obligations, funds, awards			<b>15. NUMBER OF PAGES</b> 95	
			<b>16. PRICE CODE</b>	
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> UU	

THIS PAGE INTENTIONALLY LEFT BLANK

**Approved for public release. Distribution is unlimited.**

**AN ANALYSIS OF FISCAL YEARS 2014 TO 2016 NAVY FOURTH QUARTER  
SPENDING: TRENDS AND CHARACTERISTICS OF Q4 O&M  
CONTRACTUAL AWARDS**

Christina I. Manol, Civilian, Department of the Army  
Shahaadah C. Nalls, Civilian, Department of the Army  
Justin R. Scharber, Civilian, Department of the Army

Submitted in partial fulfillment of the requirements for the degree of

**MASTER OF SCIENCE IN PROGRAM MANAGEMENT**

from the

**NAVAL POSTGRADUATE SCHOOL  
September 2017**

Approved by: Brad Naegle, Lead Advisor

Victor Hernandez, Support Advisor  
Director G-8  
U.S. Army PEO Enterprise Information Systems

Brad Naegle  
Academic Associate  
Graduate School of Business and Public Policy

THIS PAGE INTENTIONALLY LEFT BLANK

# **AN ANALYSIS OF FISCAL YEARS 2014 TO 2016 NAVY FOURTH QUARTER SPENDING: TRENDS AND CHARACTERISTICS OF Q4 O&M CONTRACTUAL AWARDS**

## **ABSTRACT**

Former United States Under Secretary of Defense Robert Hale stated in a September 2016 article for Breaking Defense, “We need to find practical ways to apply the brakes to year-end spending so that [the Department of Defense] funds only its highest-priority needs.” This paper analyzes trends and characteristics of the Quarter 4 (Q4) Navy spending habits driving the government’s decisions and the related impacts of those decisions. Previous trends have shown that under-execution in the government leads to future funding decrements. Although seldom documented, this practice leads to increased late spending and a potential for executing ahead of need, but results in an obligation of funds. Our research identifies trends across contractual spending in the Navy Operations and Maintenance accounts between fiscal years 2014 and 2016 to help ensure the government is getting the best value for the limited resources available. Analysis indicated that actual Q4 spending appears higher than historical rates, in excess of 35% in all years. We also noted trends in Q4 spending leading to an increased level of Indefinite Delivery Contracts, and a significant increase in overall contract actions processed. Surprisingly, even with the rush to obligate, 2014 data showed Q4 obligations trended higher than average utilizing Full and Open Competition.

THIS PAGE INTENTIONALLY LEFT BLANK



## TABLE OF CONTENTS

<b>I.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>A.</b>	<b>OBJECTIVE .....</b>	<b>3</b>
<b>B.</b>	<b>PURPOSE AND BENEFIT OF RESEARCH.....</b>	<b>4</b>
<b>C.</b>	<b>SCOPE AND METHODOLOGY .....</b>	<b>5</b>
<b>D.</b>	<b>RESEARCH QUESTIONS.....</b>	<b>6</b>
<b>E.</b>	<b>THESIS STATEMENT .....</b>	<b>7</b>
<b>II.</b>	<b>CURRENT PROCESSES AND PROCEDURES DRIVING GOVERNMENT SPENDING .....</b>	<b>9</b>
<b>A.</b>	<b>THE BUDGET AND APPROPRIATION PROCESS .....</b>	<b>9</b>
<b>B.</b>	<b>CONTINUING RESOLUTION .....</b>	<b>11</b>
<b>C.</b>	<b>PLANNING PROGRAMMING, BUDGETING, AND EXECUTION (PPBE) .....</b>	<b>14</b>
1.	Apportioning Appropriated Funds .....	18
2.	Reprogramming Funds .....	18
<b>D.</b>	<b>ANTI-DEFICIENCY ACT, BONA FIDE NEEDS, AND MISAPPROPRIATIONS ACT.....</b>	<b>20</b>
1.	Anti-Deficiency Act (ADA)—Amount.....	20
2.	Bona Fide Needs—Time .....	21
3.	Misappropriations Act—Purpose.....	21
<b>E.</b>	<b>UNDERSTANDING THE O&amp;M APPROPRIATION.....</b>	<b>22</b>
<b>F.</b>	<b>FISCAL YEAR-END PROCESSES AND DRIVERS.....</b>	<b>26</b>
<b>G.</b>	<b>O&amp;M SPENDING TRENDS .....</b>	<b>27</b>
<b>III.</b>	<b>DATA AND TRENDS .....</b>	<b>35</b>
<b>A.</b>	<b>CAVEATS, CONTROLS, AND CONSIDERATIONS .....</b>	<b>35</b>
<b>B.</b>	<b>THE FEDERAL PROCUREMENT DATA SYSTEM .....</b>	<b>36</b>
<b>C.</b>	<b>DATA AND TRENDS WITHIN NAVY SPENDING .....</b>	<b>37</b>
1.	FY14 Data Trends within Navy Spending.....	37
2.	FY15 Data Trends within Navy Spending.....	45
3.	FY16 Data Trends within Navy Spending.....	51
<b>IV.</b>	<b>PROJECT FINDINGS AND ANALYSIS .....</b>	<b>57</b>
<b>A.</b>	<b>TIMING MATTERS .....</b>	<b>57</b>
<b>B.</b>	<b>WHAT ARE DOLLARS SPENT ON AND BY WHOM? .....</b>	<b>60</b>
<b>C.</b>	<b>DECISION DRIVERS FOR SPENDING HABITS.....</b>	<b>60</b>
1.	Uncertainty .....	61

2.	Competition .....	62
3.	IDC versus Stand-Alone Contracts .....	62
4.	Spending per Action .....	64
V.	CONCLUSIONS AND RECOMMENDATIONS.....	67
A.	CONCLUSIONS .....	67
B.	RECOMMENDATIONS.....	68
C.	AVENUES FOR FUTURE RESEARCH .....	70
	LIST OF REFERENCES .....	71
	INITIAL DISTRIBUTION LIST .....	75

## LIST OF FIGURES

Figure 1.	Department of the Navy O&M Appropriation Summary. Adapted from SECNAV (2015). .....	2
Figure 2.	Congressional Enactment Timetable. Source: DAU (2016). .....	10
Figure 3.	Duration of Continuing Resolutions from FY1998–2016. Source: Institute to Reduce Spending (2014). .....	12
Figure 4.	Year-End Spending by Appropriations Date. Source: Liebman & Mahoney (2010, p. 30). .....	14
Figure 5.	Resource Allocation Process. Source: DAU (2016). .....	15
Figure 6.	Expenditure Rate Goals. Source: Higbee et al. (2013). .....	17
Figure 7.	Appropriation Life Cycle. Source: DAU (2016, slide 9). .....	24
Figure 8.	Q4 Obligation Rates for O&M-Active and Reserve Components. Source: GAO (2010). .....	27
Figure 9.	Enacted and GAO-Estimated Obligation Amounts for the DOD's Operation and Maintenance Base Accounts, FY2009–2015. Source: GAO (2016, p. 13). .....	28
Figure 10.	Operation and Maintenance Enacted Funding from Military Services' and Defense-Wide Agencies' Accounts that the DOD Realigned Using its Authorities, FY2009–2015. Source: GAO (2016, p. 12). .....	29
Figure 11.	Growth in Funding for Operation and Maintenance between 2000 and 2012, after Removing Effects of Inflation. Source: CBO (2017, p. 20). .....	30
Figure 12.	Portions of Base-Budget Funding for Operation and Maintenance that Are Well Understood and Those that Are Not Easily Tracked. Source: CBO (2017, p. 20). .....	31
Figure 13.	DOD's Total Funding for Operation and Maintenance, by Military Service, 1980–2015. Source: CBO (2017, p. 10). .....	32
Figure 14.	FY14 Total Obligations by Quarter. Adapted from Department of the Navy (2017a). .....	38

Figure 15.	FY14 Navy/Marine Obligations over Time. Adapted from Department of the Navy (2017a). ....	38
Figure 16.	FY14 Command Obligations by Quarter. Adapted from Department of the Navy (2017a). ....	39
Figure 17.	FY14 Obligations by Six Major Commands and Quarter. Adapted from Department of the Navy (2017a). ....	40
Figure 18.	FY14 Obligations and Number of Actions by IDC versus Stand-Alone Contract. Adapted from Department of the Navy (2017a). ....	41
Figure 19.	FY14 Extent Competed by Quarter. Adapted from Department of the Navy (2017a). ....	42
Figure 20.	FY14 O&M Obligations by Business Size and QTR. Adapted from Department of the Navy (2017a). ....	43
Figure 21.	FY14 Portfolio by Obligations and Number of Actions. Adapted from Department of the Navy (2017a). ....	44
Figure 22.	4QFY14 Portfolios by Number of Actions. Adapted from Department of the Navy (2017a). ....	44
Figure 23.	FY15 Total Obligations by Quarter. Adapted from Department of the Navy (2015). ....	45
Figure 24.	FY15 Obligations Shown by Actions and Timelines. Adapted from Department of the Navy (2015). ....	46
Figure 25.	FY15 Command Obligations by Quarter. Adapted from Department of the Navy (2015). ....	47
Figure 26.	FY15 Obligations by Six Major Commands and Quarters. Adapted from Department of the Navy (2015). ....	48
Figure 27.	FY15 Obligations and Number of Actions by IDC versus Stand-Alone Contract. Adapted from Department of the Navy (2015). ....	49
Figure 28.	FY15 O&M Spending by Type. Adapted from Department of the Navy (2015). ....	50
Figure 29.	4QFY15 O&M Spending by Type. Adapted from Department of the Navy (2015). ....	50
Figure 30.	FY16 Total Obligations by Quarter. Adapted from Department of the Navy (2017b). ....	51

Figure 31.	FY16 Navy/Marine Obligations and Actions Shown by Timeline. Adapted from Department of the Navy (2017b).....	52
Figure 32.	FY16 Command Obligations by Quarter. Adapted from Department of the Navy (2017b). .....	53
Figure 33.	FY16 Obligations by Six Major Commands and Quarter. Adapted from Department of the Navy (2017b). .....	53
Figure 34.	FY16 Obligations and Number of Actions by IDC versus Stand-Alone Contract. Adapted from Department of the Navy (2017b). .....	54
Figure 35.	FY16 O&M Spending by Type. Adapted from Department of the Navy (2017b). .....	55
Figure 36.	4QFY16 O&M Spending by Type. Adapted from Department of the Navy (2017b). .....	56
Figure 37.	Comparison of Dollars Obligated by Quarter 2014–2016. Adapted from Department of the Navy (2015, 2017a, 2017b).....	58
Figure 38.	Trend Line of Number of Actions Performed 2014–2016. Adapted from Department of the Navy (2015, 2017a, 2017b).....	58
Figure 39.	Time-Phased Comparison, Obligations, and Actions FY14–FY16. Adapted from Department of the Navy (2015, 2017a, 2017b). .....	59
Figure 40.	IDC versus Stand-Alone Actions FY14–FY16. Adapted from Department of the Navy (2015, 2017a, 2017b). .....	63
Figure 41.	Total Obligations via IDC versus Stand-Alone Actions FY14–FY16. Adapted from Department of the Navy (2015, 2017a, 2017b). .....	63
Figure 42.	Average Dollar per Action via IDC versus Stand-Alone FY14–FY16. Adapted from Department of the Navy (2015, 2017a, 2017b). .....	65

THIS PAGE INTENTIONALLY LEFT BLANK

## **LIST OF TABLES**

Table 1.	FPDS Data Fields and Manual Extrapolation Used for this Research.....	36
Table 2.	Analyzed FPDS Appropriation Filters.....	37

THIS PAGE INTENTIONALLY LEFT BLANK



## LIST OF ACRONYMS AND ABBREVIATIONS

ADA	Anti-Deficiency Act
CBO	Congressional Budget Office
CR	Continuing Resolution
CRA	Continuing Resolution Authority
DAG	Defense Acquisition Guidebook
DOD	Department of Defense
DON	Department of the Navy
FMR	Financial Management Regulation
FPDS	Federal Procurement Data System
FY	Fiscal Year
FYDP	Future Years Defense Program
GAO	Government Accountability Office
IDC	Indefinite Delivery Contract
JLOC	Joint Logistics Operations Center
MAC	Multiple Award Contract
MilCON	Military Construction
MILOB	Military Observer
NAICS	North American Industry Codes
NATO	North Atlantic Treaty Organization
NAVFAC	Naval Facilities Engineering Command
NAVSEA	Naval Sea Systems Command
NAVSUP	Naval Supply Systems Command
NDAA	National Defense Authorization Act
O&M	Operations and Maintenance
OM&N	Operations and Maintenance, Navy
OSD	Office of the Secretary of Defense
OUSDC(PB)	Under Secretary of Defense (Comptroller), Program/
PPBE	Budget Planning, Programming, Budgeting, and Execution
PSC	Product Service Code
R&D	Research and Development

RFID	Radio Frequency Identification
SAT	Simplified Acquisition Threshold
SOFAR	Sound Fixing and Ranging
SPAWAR	Space and Naval Warfare Systems Command
TLAM	Tomahawk land attack missile
TOA	Total Obligation Authority
USMC	United States Marine Corps command
VA	Veterans Administration

## **ACKNOWLEDGMENTS**

We would like to thank the Department of the Navy for supporting our research and providing their obligation data. We would also like to thank our thesis advisors, Mr. Brad Naegle, Senior Lecturer of the Naval Postgraduate School, and Mr. Victor Hernandez, Director G-8 of the U.S. Army PEO Enterprise Information Systems. They were always available for assistance or when we had a question about our research and writing. They allowed this paper to be our own work, but steered us in the right direction.

Finally, we would like to express our sincere gratitude to our loving and always supportive families for providing us with support and great encouragement throughout the program and through the process of developing this joint applied project. Our work would not have been possible without you by our side. Thank you.

THIS PAGE INTENTIONALLY LEFT BLANK

## I. INTRODUCTION

Execution of government resources is one of the single most regulated and watched activities in both the government and private sector. Why? It is simple; execution of government funding impacts everyone. As tax payers, we want to know what the government is buying with our money; as service members, we want to ensure the government is buying the best for warfare and protection; as Congress, we want to ensure the government is executing to our best interests (whatever they may be at the time); and the list goes on and on. The heavy scrutinizing of resources is just one of the drivers pushing the governmental departments to focus on obligation factors rather than efficient processing. As we get closer to year-end, the rush for obligations and contractual awards to expend current-year funding skyrockets across the departments and brings to question: Are we really getting the best value for our critical resources?

This research analyzes the execution and trends of the Department of the Navy's (DON) contractual fourth quarter spending habits. The focus is on the Operations and Maintenance (O&M) appropriations in Fiscal Year (FY) 2014–2016. Defined trends and identifiers can allow the Department of Defense (DOD) to identify efficiencies while protecting critical assets and continuing to meet the warfighters' need.

As the former DOD Comptroller Robert Hale stated in a September 2016 article from *Breaking Defense*, “Year-end spending pays for lower-quality and lower-priority projects. We need to find practical ways to apply the brakes to year-end spending so that DOD funds only its highest-priority needs” (Hale, 2016, para. 2). In 1979 and 1980, the Senate Subcommittee on Oversight of Government Management also noticed this spike in departmental fourth-quarter spending and issued a report titled “‘Hurry-Up’ Spending.” In general, this report comments on the rush for departmental spending in the fourth quarter and any impacts or causes such as lack of competition, poorly defined statements of work, inadequately negotiated contracts, and procurement of lower priority items (“Hurry-Up” Spending, 1980). The rush for execution is exacerbated within the O&M appropriation as an operating account with only a single year of funding

availability. Congressional processes were put into place as a result of this report; however, concerns with Q4 O&M spending remain.

The DON has an extensive O&M budget, executing over \$40 billion each FY. The DON published its *Highlights of the Department of the Navy FY 2016 Budget* (Secretary of the Navy [SECNAV], 2015) with the appropriation levels shown in Figure 1.

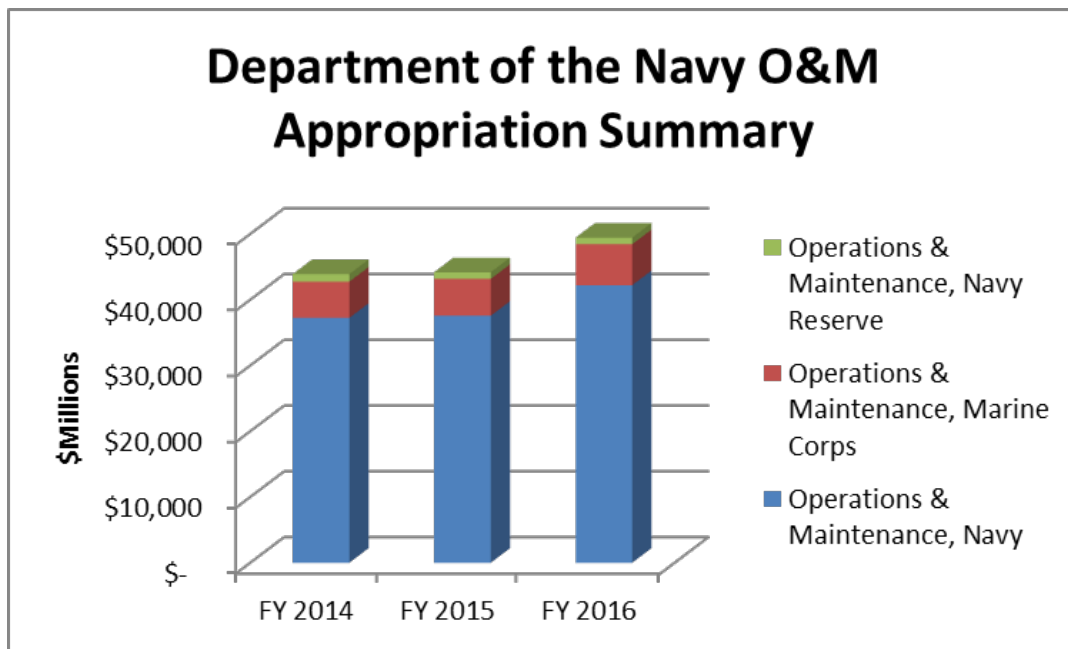


Figure 1. Department of the Navy O&M Appropriation Summary.  
Adapted from SECNAV (2015).

Congress enacted a statutory limit on DOD spending related to one-year appropriations called the 80/20 rule to assist with fourth-quarter spending concerns (Under Secretary of Defense (Comptroller), 2011, p. 4-25). The DOD must now certify that no more than 20% of the current fiscal year appropriations are obligated during the last two months of the fiscal year (i.e., the 80/20 rule). But as we have seen, this rule still leaves room for final spikes in an effort to avoid loss of critical current-year and future-year funds.

This research further analyzes these spikes and financial trends on the DON's spending habits as we near fiscal year end, and compares them to data sets on execution throughout the year. Our intent is to consider root causes and common characteristics from the trends and analysis to pinpoint any lessons-learned and efficiencies for government end-of-year funds processing. Efficient processing is critical for our government's funding as we move more and more into a declining resource-driven environment. As technology expands into the software environment, costs continue to rise, and resources continue to decline, it quickly becomes apparent that, if we are to remain agile and fund our highest priorities, the government needs to gain better and efficient processing of its resources.

#### **A. OBJECTIVE**

Government spending often seems to be the most criticized and monitored activity in the DOD, particularly in the O&M appropriations. Leaders are expected to spend quickly and efficiently, while still meeting stake holder requirements and not wasting government resources. The objective of this research is to identify trends and characteristics of DON's spending habits late in the fiscal year, outline potential root causes for late awards, ensure the government is getting the best value for the dollars spent, and recommend potential avenues for better spending practices.

Management of resources is predominately driven by policy and regulations, both at Congressional and Departmental levels. Our research expands upon the statutory and regulatory stipulations further in Chapter II. O&M appropriations are confined to a 12-month period of availability for obligation. This represents the shortest availability of any appropriation for obligations, within government spending. The DOD 7000.14-R (Financial Management Regulation) Volume 2A, defines obligation as a "binding agreement that will result in outlays immediately or in the future" (Under Secretary of Defense (Comptroller), 2008, p. 1-14). With that, O&M is also the most heavily scrutinized appropriation and plays a big role as a driver in the rush to spend dollars before expiration.

## **B. PURPOSE AND BENEFIT OF RESEARCH**

Why is it so critical for managers to ensure 100% spending by the end of the fiscal year? What drives these spending habits, and in turn what are the impacts to the Government, DOD, and tax payers for these rushed decisions? Understanding spending habits and characteristics of government actions can help bring light to these looming questions. The more the government understands spending habits and the impacts of those drivers, the better we can position the government to reduce wasteful spending and protect resources for needed capabilities.

Many reports indicate that delayed spending can lead to rushed or faulty awards, reductions in competitive contracting, increased overtime necessary to perform additional workload in the last quarter, lower priority requirements being procured just to expend available funding, and increased potential for committing an Anti-deficiency Act violation. The research explores the possible impacts of allowing the military services more flexibility in the use of the O&M appropriation, extended use of availability, or relaxation of O&M expense/investment thresholds, and how they could result in the flexibility to better fund needed and short-funded assets in support of the warfighter. The constraints of our research do not allow for detailed analysis of the extent to which assets were short-funded through inefficiencies introduced in fourth quarter spending. However, the results of this research do shed light on year-end spending drivers, and how the additional flexibility for O&M could logically ameliorate those factors and benefit the government's spending.

Once drivers and impacts are well defined, the desire is for stakeholders to initiate change in policy for contractual spending within the O&M appropriation and incentivize better decision making for contract awards in the Q4. The potential benefits of this analysis are exponential, reaching not only the DON but also the DOD, Congress, and the everyday taxpayer.

The DON would benefit from this analysis by furthering its understanding of the trends and habits of its contractual spending. Once the problem and driving factors are identified, the Department could initiate internal policy to better manage the spending of



its resources throughout the year and implement incentive factors to help relieve the stress of Q4 spending. With an increased understanding of the Navy's spending habits, the Department can obtain an increased level of visibility into its requirements and resources needs to make more informed decisions on top priorities.

Jason Fichtner and Robert Greene (2014) published a working paper titled "Curbing the Surge in Year-End Federal Government Spending: Reforming 'Use it or Lose it' Rules." Within this paper, the authors explain the phenomenon known as "Use it or Lose it" in which the government is pressured to spend every dollar before year-end in avoidance of funds being "returned to the Treasury" and in turn, being penalized by a reduction in Congressionally Appropriated funds in the next fiscal year. Although this "policy" is not found in statute or regulation, it is a known practice within the government and a key driver for year-end execution (Fichtner & Greene, 2014, pp. 1-6). Services' ability to understand habits and trends pushing these awards and gaining a chance to make changes in avoidance of losing valuable Total Obligational Authority (TOA) is a key benefit for the Navy.

Congress would also be a large benefactor of this analysis. Every year, the President and Congress review the budget to determine the best value of their resources in support of the soldier's needs. With the decline of discretionary spending, the efficiency of every dollar spent is critical. We must become smarter in how we resource our defenses efforts. Government Accountability Office (GAO) reports have noted across the years the concern on DOD spending in the Q4. With a greater level of understanding on the driving factors influencing these spending habits, Congress could help by updating policy on the appropriations restrictions and incentivizing services to execute more effectively.

## **C. SCOPE AND METHODOLOGY**

Analysis focuses on the Department of Navy's O&M spending habits. The frame of reference for this research is Fiscal Years 2014–2016. Data sets are analyzed for spending across the entire fiscal year, Q1–Q4, with the majority of the analysis focused around fourth quarter spending. The analysis of quarters 1–3 is presented for comparison

and understanding of the depth of spending shown by the Department in Q4. Other services may be referenced as well as the holistic Department of the Defense for comparative analysis and determination of overall driving factors influencing spending habits.

While overall spending may be referenced, this research focuses on the trends of contractual spending within the Navy. This includes contractual awards as well as modifications involving obligation of funds. We analyze specific factors of contractual spending as it relates to Q4 awards such as contract types (indefinite delivery versus definite contracts), competitive versus sole source awards, as well as utilization of small business. The intent is to identify if there is indeed a rush of Q4 spending, how significant that spending is, and examine some drivers and impacts to contractual awards.

Regulations and citations are presented from publicly available sources to include the Financial Management Regulation (DOD 7000.14-R), the DOD 5000, and the Federal Acquisition Regulation (FAR). High-level budget figures will be presented from publicized budgets from the White House.gov. Contract data were provided by the Department of the Navy (DON) to the authors of this research. The DON utilized the Federal Procurement Data System (FPDS) to extract relevant data elements for our research.

#### **D. RESEARCH QUESTIONS**

The primary question driving our analysis and research is:

- What are the trends and characteristics of DON spending throughout a fiscal year and how do they compare to spending in Q4?

Secondary questions of our research:

- What drives the Department to make these decisions as they relate to contractual spending in the rush of year-end awards with expiring dollars?
- What are some ways the government can control spending habits and ensure more efficient and effective processing of dollars spent?

## **E. THESIS STATEMENT**

With this research, our goal is to analyze and identify trends across Q4 contractual spending in the Navy Operations and Maintenance accounts from FY2014–FY2016. This analysis may aid the government in determining the driving factors for these awards and ensure the government is gaining the best value for the limited resources available. Defined trends and identifiers enable the DOD to identify efficiencies while protecting critical assets and continuing to meet the military’s needs.

THIS PAGE INTENTIONALLY LEFT BLANK

## **II. CURRENT PROCESSES AND PROCEDURES DRIVING GOVERNMENT SPENDING**

Chapter II provides an outline on the current budget and fiscal processes within the DON potentially deriving spending habits. The budget and programming process within the DOD is a heavily regulated and calendar driven process. Resource execution is difficult on its own with ensuring compliance with fiscal and contract laws, but the difficulty and criticality is often compounded by changing environments, priorities, and still being held to calendar-driven dates. The regulated policies and processes implemented against the services' execution may be a significant driver leading to the year-end habits the services portray today.

### **A. THE BUDGET AND APPROPRIATION PROCESS**

Congress and the President must enact appropriations which provide funding for Federal agencies to operate in a new fiscal year by October 1st, the first day of the fiscal year (Congressional Budget and Impoundment Control Act of 1974). Congress issues law each year to “Authorize” programs (in other words, allow a program to exist) and then “Appropriate” funds to programs (which provides funds) in the National Defense Authorization Act (NDAA). Funds are therefore provided with specific purposes, in specific amounts, and for a specified period of time (Contract and Fiscal Law Department, 2015, p. 20). Figure 2 shows a depiction of the Congressional enactment timeline displaying one of the first calendar-driven processes driving service execution (Defense Acquisition University [DAU], 2016, p. 7).

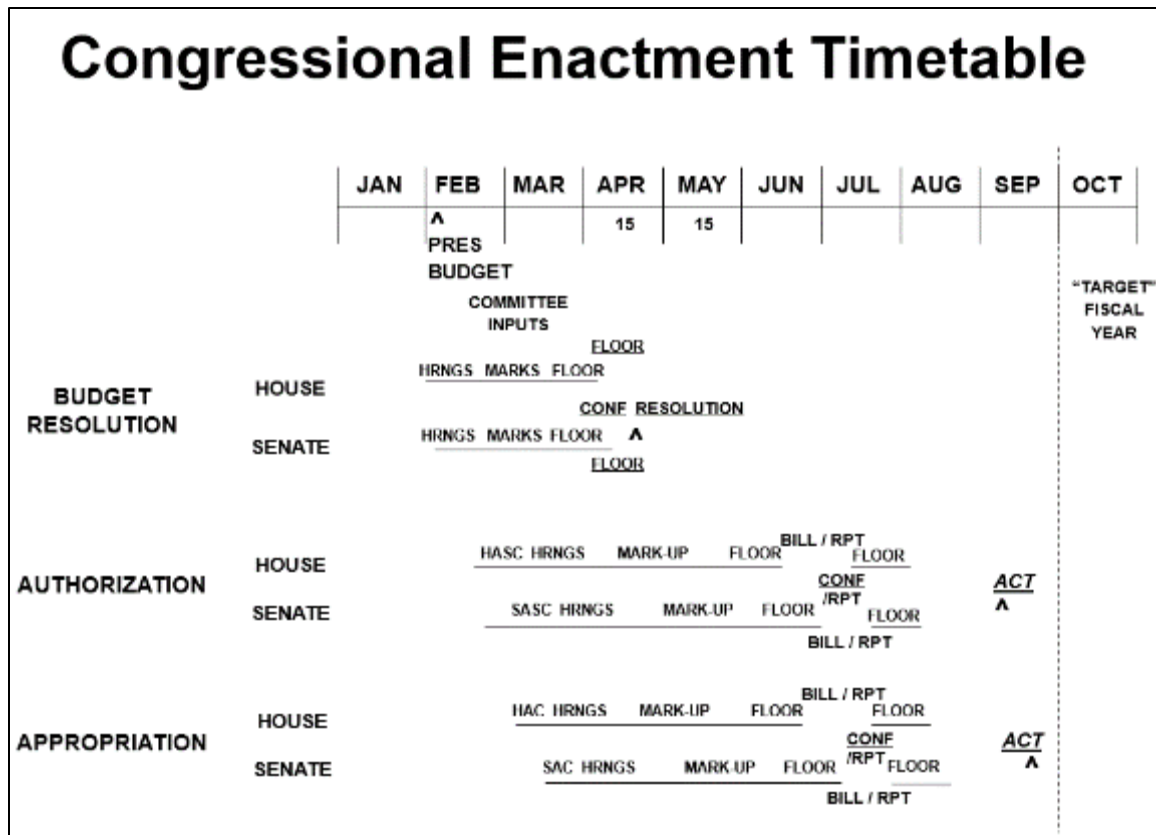


Figure 2. Congressional Enactment Timetable. Source: DAU (2016).

It is a well-known fact that Congress often does not meet the enactment prescribed timelines and a continuing resolution (CR) is passed as a temporary operating measure of business. As stated in an online publication by the Institute to Reduce Spending, “Budgeting in Congress is a process—and a history—of missing deadlines, busting caps, and growing instability” (Institute to Reduce Spending, 2014, para. 1). Regardless of the reason, Congress often addresses missed deadlines with a CR. Due to the political fall-out from a so-called “government shutdown” along with the negative impact to the full faith and trust in the U.S. credit, Congress is left with an easy resolution that pushes true budget decisions down the road. CRs have grown from short, stop-gap measures allowing just enough time for negotiation of a yearly budget, to long-term methods of funding the government for the entire year (Institute to Reduce Spending, 2014, paras. 5–6). The practical results of CRs are numerous, yet the true magnitude of its use may yet be unknown.

## **B. CONTINUING RESOLUTION**

As defined by the United States Senate, CRs or Continuing Appropriations are “Legislation in the form of a joint resolution enacted by Congress, when the new fiscal year is about to begin or has begun, to provide budget authority for Federal agencies and programs to continue in operation until the regular appropriations acts are enacted” (United States Senate). In other words, when the budget has not been passed by 1 October, Congress must find a short term way to provide funds, done via a CR, to avoid a government shutdown. Continuing Resolution Authority (CRA) protects the services by allowing them to continue work at the same rate of operations approved during the previous fiscal year during a specified period of time. Often times, Congress is unable to meet extended deadlines and multiple CRs are enacted in a given fiscal year before a budget is passed. Except for fiscal years 1989, 1995, and 1997 (see Figure 3), in the last sixty years Congress has enacted a CR at least once each year (Institute to Reduce Spending, 2014, para. 3). The Institute to Reduce Spending provided a depiction of the duration and number of CR periods enacted since 1998.

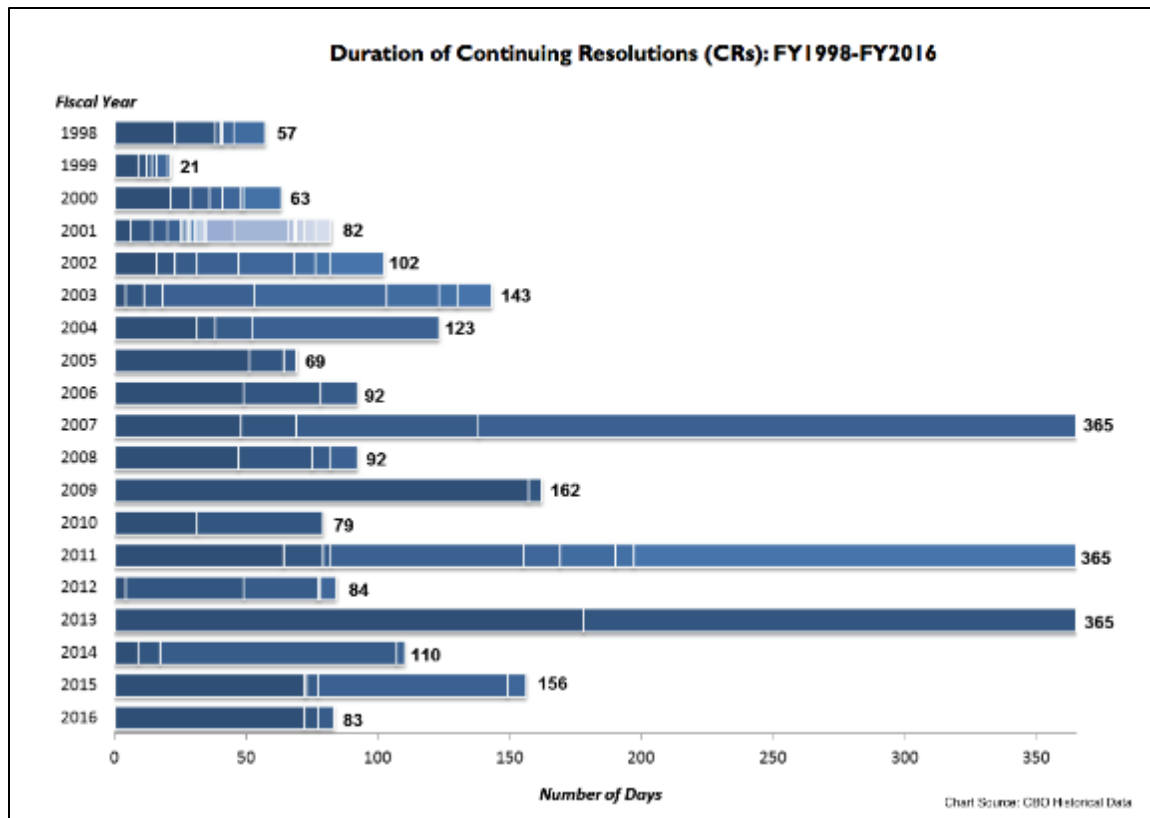


Figure 3. Duration of Continuing Resolutions from FY1998–2016. Source: Institute to Reduce Spending (2014).

Ms. Judy Thomas, a budget methods specialist for the Budget Concepts Branch from Office of Management and Budget, provided a presentation in 2007 addressing the generalities of CRs. CRs are governed with a few guidelines for level of operations the services can execute during a prescribed CR period, they are as follows:

Allocation and execution of funding under a CR is held to the lessor of; prior year, current-year or Congressionally marked funds.

Sec. 101 (a) Such amounts as may be necessary, at a rate for operations as provided in the applicable appropriations Acts for fiscal year XXXX and under the authority and conditions provided in such Acts, for continuing projects or activities...that are not otherwise specifically provided for in this Act, that were conducted in fiscal year XXXX, and for which appropriations, funds, or other authority were made available in the following appropriations Acts. (Thomas, Spinner, & Tarberner, 2007, p. 4)

No New Starts Section 104, General Provisions:



Except as otherwise provided in section 102, no appropriation or funds made available or authority granted pursuant to section 101 shall be used to initiate or resume any project or activity for which appropriations, funds, or other authority were not available during fiscal year XXXX. (Thomas et al., 2007, p. 11)

CRs provide services coverage for continued operations in contract and civilian personnel in avoidance of Anti-deficiency Act violations. Per law, the government cannot receive work for free, and cannot agree to pay people in advance of receiving funding authority. CRs play a big role in the services' ability to execute funding within the first quarter and often times through mid-year. Often, allocation is limited during CR periods and services are held to incrementally funding contract awards, and pushing out new awards to later in the fiscal year. This incremental funding process quickly embellishes the Contracting Officers' work load and condenses work into the fourth quarter.

The GAO released a report in March 2013 laying out some of the impacts of budget uncertainty and CRs on agency operations; *Budget Issues; Effects of Budget Uncertainty from Continuing Resolutions on Agency Operations*. Among the CR impacts the GAO reported potential contracting delays which negatively impacted ability to fully compete and award contracts (Sager, 2013, p 7). Another example of CR implications on service spending habits referenced in the report is that longer CRs distort agencies' spending they must quickly obligate funds that are released later in the fiscal year (Sager, 2013, p. 8). The report also outlined that CR's can delay hiring and make it more difficult to fill a position by end of the year. Without sufficient time to allocate spending to high-priority tasks (e.g., hiring) are instead spent on quicker to purchase, lower priority items (Sager, 2013, p. 8).

Figure 4 displays results from a 2013 Harvard Study on year-end spending compared to the timing of appropriations. Clear trends show the later appropriations are enacted, the stronger year-end spending habits reside within the services (Liebman & Mahoney, 2013, p. 30).

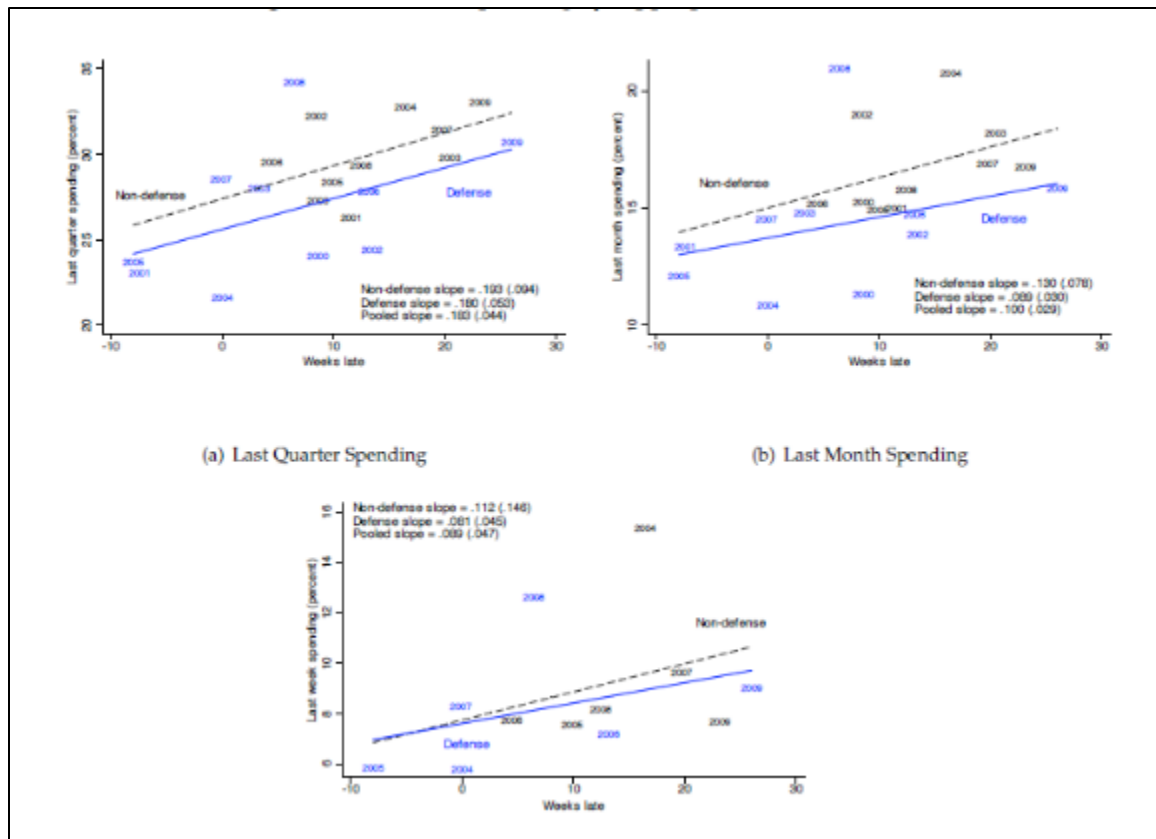


Figure 4. Year-End Spending by Appropriations Date. Source: Liebman & Mahoney (2010, p. 30).

### C. PLANNING PROGRAMMING, BUDGETING, AND EXECUTION (PPBE)

DOD uses a specific method to budget for, request, and monitor Congressionally appropriated funds: the Planning, Programming, Budgeting, and Execution (PPBE) system. Instituted under Mr. Robert McNamara, Secretary of Defense, in 1962, the PPBE system is a five-year continuous process for planning and requesting appropriations from the component level up the chain through the Office of the Secretary of Defense for inclusion in the President's annual funds request to Congress (DAG, 2013, Ch. 1.2, p. 4). The system works in a phased cycle that projects five years into the future. PPBE begins with a planning process, which sets a strategic directive. Programming then establishes estimates to accomplish the mission from the component level and refers to program cost estimates compiled from the ground up (DAG, 2013, Ch. 1.2, p. 4).

At any given time, there are three cycles of resourcing at play: the current-year budget awaiting authorization and appropriation bills, the budget year with the President's budget for the next fiscal year, and programing for the Future Years Defense Program (FYDP) for the next five years. Figure 5 shows a depiction of overlapping timelines provided from DAU showing at any given time all of the churn and impacts budgeting has on the services (DAU, 2016, p. 6).

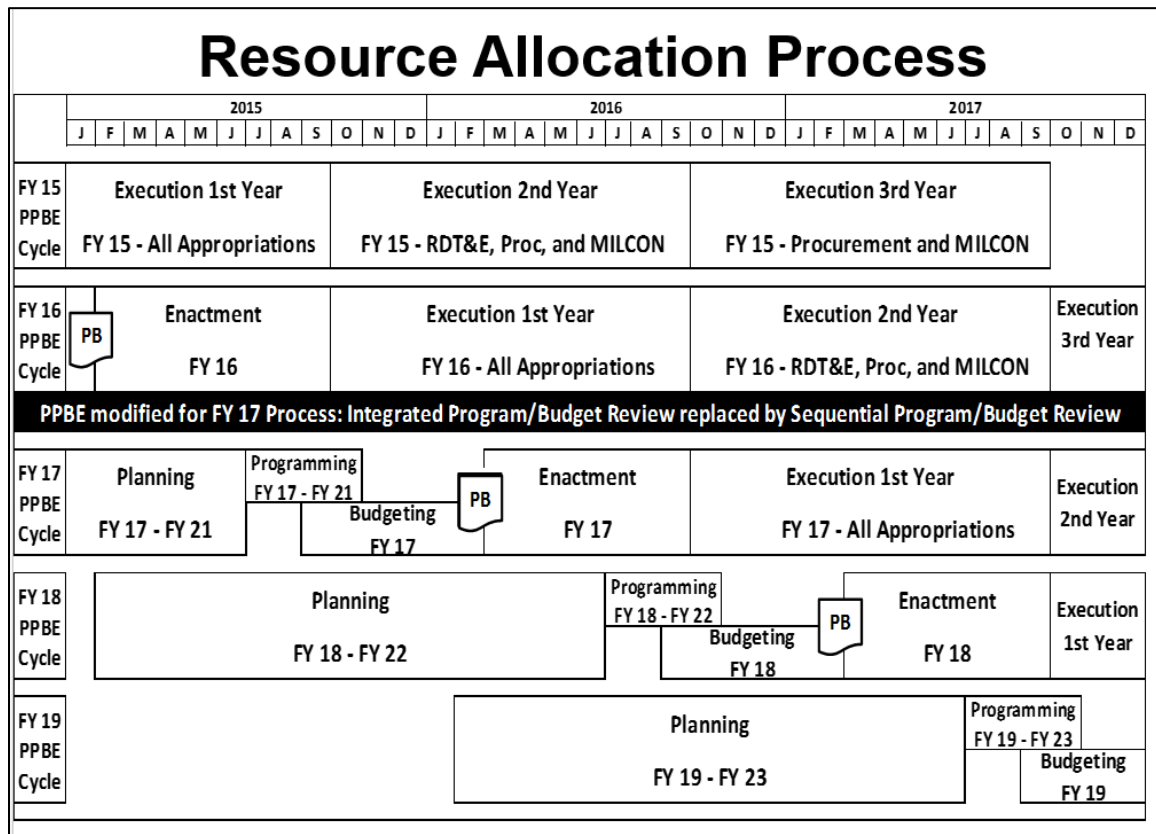


Figure 5. Resource Allocation Process. Source: DAU (2016).

Components estimate how much is required to sustain and move programs forward for the next five years. The programs then compete with other programs from the component level up to the President's request, and then through receipt of Congressional appropriation and authorization. Numerous adjustments to estimated program costs are made in order to obtain final Congressional authorization and appropriation.

Part of the competition revolves around performance of the program, but also how much of the funds previously appropriated for the effort were necessary and obligated (DAG, 2013, Ch. 1.2, p. 5). With regard to O&M funding, this is especially important, as yearly requirements for the operation and maintenance of facilities, equipment, and others are expected to be relatively consistent. The PPBE process is predicated upon prior year obligations (and in some cases, expenditures) and basing the next year's budget on those numbers.

In May 2003, the DOD added the execution phase, which tracks how much of those planned dollars is spent and when (Acquipedia, n.d, para. 7). The execution phase is meant to ensure that the budgets requested are executed according to their plans and schedules and that the DOD is receiving value for the appropriations allotted. In practice, this can mean program funds that are not expended properly are deemed unnecessary by senior leadership outside of the programs span of control, and the funding is proportionally reduced during the next year's budgetary planning process. The O&M appropriation has an open obligation period of 12 months, however it remains active for disbursements for five years after obligation with the issuance of a project order.

Experience has shown the Departments' transition of execution oversight expanding to both disbursement goals as well as obligation goals. In 2012, the Under Secretary of Defense (Comptroller and Acquisition, Technology and Logistics) released guidance implementing benchmarks for service obligations and disbursement of DOD resources. Figure 6 is an example of the benchmarks by appropriation the services are held to for oversight and monitoring programmatic execution (Higbee, Tremaine, Seligman, & Arwood, 2013, p. 2).

	Month	RDT&E		Procurement		O&M	
		Obl.	Exp.	Obl.	Exp.	Obl.	Exp.
First Year of Availability	Oct	7.50%	4.60%	6.70%	N/A	8.30%	6.30%
	Nov	15.00%	9.20%	13.30%	N/A	16.70%	12.50%
	Dec	22.50%	13.80%	20.00%	N/A	25.00%	18.80%
	Jan	30.00%	18.30%	26.70%	N/A	33.30%	25.00%
	Feb	37.50%	22.90%	33.30%	N/A	41.70%	31.30%
	Mar	45.00%	27.50%	40.00%	N/A	50.00%	37.50%
	Apr	52.50%	32.10%	46.70%	N/A	58.30%	43.80%
	May	60.00%	36.70%	53.30%	N/A	66.70%	50.00%
	Jun	67.50%	41.30%	60.00%	N/A	75.00%	56.30%
	Jul	75.00%	45.80%	66.70%	N/A	83.30%	62.50%
Second Year of Availability	Aug	82.50%	50.40%	73.30%	N/A	91.70%	68.80%
	Sep	90.00%	55.00%	80.00%	N/A	100.00%	75.00%
	Oct	90.80%	57.90%	80.80%	N/A	100.00%	77.10%
	Nov	91.70%	60.80%	81.70%	N/A	100.00%	79.20%
	Dec	92.50%	63.80%	82.50%	N/A	100.00%	81.30%
	Jan	93.30%	66.70%	83.30%	N/A	100.00%	83.30%
	Feb	94.20%	69.60%	84.20%	N/A	100.00%	85.40%
	Mar	95.00%	72.50%	85.00%	N/A	100.00%	87.50%
	Apr	95.80%	75.40%	85.80%	N/A	100.00%	89.60%
	May	96.70%	78.30%	86.70%	N/A	100.00%	91.70%
Third Year of Availability	Jun	97.50%	81.30%	87.50%	N/A	100.00%	93.80%
	Jul	98.30%	84.20%	88.30%	N/A	100.00%	95.80%
	Aug	99.20%	87.10%	89.20%	N/A	100.00%	97.90%
	Sep	100.00%	90.00%	90.00%	N/A	100.00%	100.00%
	Oct	100.00%	90.80%	90.80%	N/A	100.00%	100.00%
	Nov	100.00%	91.70%	91.70%	N/A	100.00%	100.00%
	Dec	100.00%	92.50%	92.50%	N/A	100.00%	100.00%
	Jan	100.00%	93.30%	93.30%	N/A	100.00%	100.00%
	Feb	100.00%	94.20%	94.20%	N/A	100.00%	100.00%
	Mar	100.00%	95.00%	95.00%	N/A	100.00%	100.00%
	Apr	100.00%	95.80%	95.80%	N/A	100.00%	100.00%
	May	100.00%	96.70%	96.70%	N/A	100.00%	100.00%
	Jun	100.00%	97.50%	97.50%	N/A	100.00%	100.00%
	Jul	100.00%	98.30%	98.30%	N/A	100.00%	100.00%
	Aug	100.00%	99.20%	99.20%	N/A	100.00%	100.00%
	Sep	100.00%	100.00%	100.00%	N/A	100.00%	100.00%

Figure 6. Expenditure Rate Goals. Source: Higbee et al. (2013).

OSD benchmarks are traditionally utilized for monitoring service execution. Recent WSD guidance is that obligation rates that do not meet the benchmarks should not be used as the determination factor in execution (Higbee et al., 2013, p. 3). However, these goals still play a large role in the services' push for year-end execution, ensuring every dollar is spent in avoidance of future budget reductions. The OSD benchmark research itself is devoted to finding reasons why services are not meeting these goals, with little consideration as to whether or not the benchmarks themselves may not be accurately suited to the current regulatory or funding environment.

The funding appropriated for specific purposes are coded broadly as different "colors of money," and include, but are not limited to DOD O&M, Procurement,

Research and Development (R&D), and Military Construction (MilCON) (AcqNotes, n.d.). For example, funds used for the procurement of large investments, say a new aircraft, would be coded as “Procurement” dollars. These colors are further subdivided by DOD component (AcqNotes, n.d.). For example, money obligated to support an Air Force purchase of an F-22 aircraft would be coded numerically so that when the line of accounting (similar to the routing number on a check) is obligated on a contract, grant, or other funding vehicle, the budget office can track that obligation as “Procurement funds” specifically for the purchase of aircraft, and appropriated for the Air Force.

## **1. Apportioning Appropriated Funds**

Apportionment of Funds is the process whereby components receive the funds Appropriated or reprogrammed. This process begins with funds distribution from the Under Secretary of Defense (Comptroller), Program/Budget (OUSD(C)/PB) to the applicable Agencies (Under Secretary of Defense (Comptroller), 2000, Vol. 2A, Ch. 1, p. 1-3). With the exception of appropriations that are expressly exempted, this process is part of a government-wide administrative process meant to allot funds to agencies with various limitations, to include programmatic or quarterly ceilings. The system is aligned with Spending Plans created by components (Krott, 2011, pp. C128–C129). The purpose of the system is two-fold: to “(1) achieve the most effective and economical use of amounts made available; and (2) prevent agencies from obligating funds in a manner that would result in a deficiency or require a supplemental appropriation” (Krott, 2011, p. C128).

## **2. Reprogramming Funds**

After appropriation of funds and before their obligation, if deemed necessary by the Secretary of Defense, the DOD is empowered to transfer or reprogram funds from one authorized program to another (Under Secretary of Defense (Comptroller), 2015, Vol. 3, Ch. 6, p. 6-3). This authority is controlled by a myriad of restrictions, limitations, and reporting requirements, including a requirement for prior approval for actions not found under general transfer authority. General transfer authority is granted via each National Defense Authorization act and provides the DOD with the ability to move funds

to a higher priority item. The decision for transfer is based on unforeseen military requirements, and may not be used if the Congress has denied funds for the item (Under Secretary of Defense (Comptroller), 2015, Vol 3, Ch. 6, p. 6-2).

Although transfers require Congressional authority, DOD officials can realign or reprogram funds within an appropriations account, beneath a specific dollar threshold, as part of the management of ongoing fiscal responsibilities (Under Secretary of Defense (Comptroller), 2015, Vol. 3, Ch. 6, p. 6-12,). Per the guidance released by the Comptroller in May of 2016, for fiscal year 2016, this could be done for reprogramming actions with a cumulative change of no more than \$15 million without notifying Congress in advance (Under Secretary of Defense (Comptroller), 2016, p. 1). This flexibility can make it difficult to start planning for PPBE in the next cycle, as officials have to decide whether or not to start with the previous year's baseline appropriation, or determine if the unforeseen changes warrant a new baseline.

Reprogramming efforts are important to service execution because of the timing implications that cascade out to the contracting commands to meet unplanned requirements. Reprogramming actions are not vetted and supported under a continuing resolution. With continuing resolution being a way of life since 1998, the services have structured reprogramming actions to occur simultaneously with mid-year reviews. This process also reduces the amount of reprogramming actions being sent up to Capitol Hill by a service at any given time. Mid-year reviews are execution actions by the service comparing a programs' execution against OSD goals. If a program is under-executed and that cannot be justified, they often become a bill-payer and a source for another programs upcoming need via reprogramming action. Each reprogramming action must have a bill-payer (source) identified for each request of additional dollars. Reprogramming actions can potentially take between 60–120 days. This means mid-year reprogramming actions equate to year-end allocation of dollars and a rush for additional contract awards. Resulting contract awards are often rushed and may not yield the most effective outcomes.

#### **D. ANTI-DEFICIENCY ACT, BONA FIDE NEEDS, AND MISAPPROPRIATIONS ACT**

Execution within the DOD is heavily scrutinized around the management of appropriate use of funding in support of time, purpose and amount. These represent the cornerstones of financial management and heavily impact the utilization of year-end spending on the services. This is one of the defining questions in the quality and need of contracts the services engage in at year-end with the rush of spending. The mismanagement of funding as it relates to time, purpose, and amount, can result in violations to fiscal laws including the Anti-Deficiency Act (ADA), Bona Fide Need, and Misappropriation. This section briefly explains the parameters around each of these fiscal boundaries and critical drivers in government spending.

The purpose of the appropriations process at present is to allow Congress to authorize specific uses for funds, and then appropriate funds to that amount, time, and purpose. The laws contain a variety of caveats, restrictions and exceptions; however, violators of any one can be subject to various administrative, civil, or criminal penalties.

##### **1. Anti-Deficiency Act (ADA)—Amount**

The ADA was enacted to ensure the government does not agree to purchase things for money they do not have (Anti-Deficiency Act, § 1341–42, 1511–19). In essence, Congress provides approval for the existence of programs and an amount of money to support them—all based on and negotiated within the President’s budget. This rule prohibits obligation, or authorization of an obligation, in excess of or in advance of appropriated or apportioned dollars (Contract and Fiscal Law Department, 2015, p. 22).

The ADA prohibits federal employees from:

Making or authorizing an expenditure from, or creating or authorizing an obligation under, any appropriation or fund in excess of the amount available in the appropriation or fund unless authorized by law. (31 U.S.C. 1341(a)(1)(A))

Involving the government in any obligation to pay money before funds have been appropriated for that purpose, unless otherwise allowed by law. (31 U.S.C. 1341(a)(1)(B))



Accepting voluntary services for the United States, or employing personal services not authorized by law, except in cases of emergency involving the safety of human life or the protection of property. (31 U.S.C. 1342)

Making obligations or expenditures in excess of an apportionment or reapportionment, or in excess of the amount permitted by agency regulations. (31 U.S.C. 1517(a))

ADA violations are essentially an amount violation by definition, as the prohibitions are against spending more money than available at a specific point in time. Violations of this act carry administrative penalties, to include removal from position, suspension from duty without pay, or removal, and criminal penalties to include, fines, imprisonment or both (GAO, n.d.).

## **2. Bona Fide Needs—Time**

The Bona Fide needs rule is coupled to both time and purpose. At its most basic, the bona fide needs rule states the government shall have an actual need, during the fiscal year for the appropriations used, for the item it agrees to purchase (Undersecretary of Defense (Comptroller), 2016, Vol. 3, Ch. 8, pp. 8-11–8-12). The need of an item must be established by an agency before funds are obligated; however that need may be before or later than when the agency needs to use the goods or the benefit of services. For each of these types, Congress and the Act itself provides certain exceptions, which may allow a purchase to be treated as if the bona fide need exists in the current fiscal year (Contract and Fiscal Law Department, 2015, p. 3-10).

When the bona fide needs rule is violated, it often creates a violation of the ADA as well. For example, if current-year funds are shown to violate the bona fide needs rule, then an obligation for a good or service was also made in advance of the appropriation. This is the textbook definition of an ADA violation, leaving perpetrators subject to civil, criminal, and administrative penalties.

## **3. Misappropriations Act—Purpose**

This act deals with the issue of the wrong color of money being used for a purchase (31 U.S.C. § 1301(a)). As previously discussed, O&M is supposed to fund

expenses such as salaries, travel, minor construction, operation, maintenance, and small stock or equipment purchases. These rules and any exceptions are provided at length in the FMR, one such rule being that a purchase for a “system” over \$250k counts as an investment, not an expense and must therefore, use Procurement dollars (Under Secretary of Defense (Comptroller), 2000, Vol. 2A, Ch. 1, p. 1-10). If an organization were to split the purchase of certain equipment into smaller dollar-value contracts and use O&M funds when the equipment is meant to function together as a system, those purchases would have been purchased with the wrong funds. Here again, this is a situation where a per se violation of the Anti-Deficiency Act has occurred. If Procurement funds for this system were not available at the time of the purchase, the purchase would have been made without sufficient appropriated funds.

#### **E. UNDERSTANDING THE O&M APPROPRIATION**

In the most general terms, Operations and Maintenance (O&M) funding is utilized to fund sustainment activities of an organization. Examples of cost elements traditionally funded by the O&M appropriation are as follows:

- Overhead operations; traditionally headquarters operations where support does not physically touch the system

- Civilian salaries and awards

- Travel

- Fuel

- Minor Construction projects \$1M or less

- Expenses of operational military forces,

- Training and education, recruiting,

- Depot maintenance,

- Purchases from Defense Working Capital Funds (e.g., spare parts),

- Base operations support,

- And assets with a system unit cost less than the current expense/investment threshold (\$250K). (Acquimedia, n.d., pp. 3–6)

Operations and Maintenance accounts are further defined by service. The DON utilizes Operations and Maintenance, Navy funding (OM&N). The DOD Comptroller in the 2017 Operations and Maintenance Budget Exhibits states “The Operation and Maintenance, Navy (O&M,N) appropriation finances the day-to-day costs of operating naval forces, including fuel, supplies, and maintenance of ships, Navy and Marine Corps aircraft, related weapon systems, and the support establishment ashore” (Under Secretary of Defense (Comptroller), 2016, p. 17).

Figure 7 demonstrates O&M has the shortest period of availability of all department appropriations. The period of availability translates to O&M being the most monitored and scrutinized appropriation within the DOD (DAU, 2016, p. 9). This also leads to O&M being the most difficult funds to execute in an environment intended for flexibility and agility to the unknown. O&M funding is authorized for a period of 12 months (1 October through 30 September). The appropriation is meant to fund yearly operations and maintenance of a program, system, or other authorized purpose. O&M may include services such as support personnel, repair or maintenance personnel, engineering or assembly. O&M may also, in limitation, include certain materials or supplies (Under Secretary of Defense (Comptroller), 2000, Vol. 2A, Ch. 1, p. 1-11).

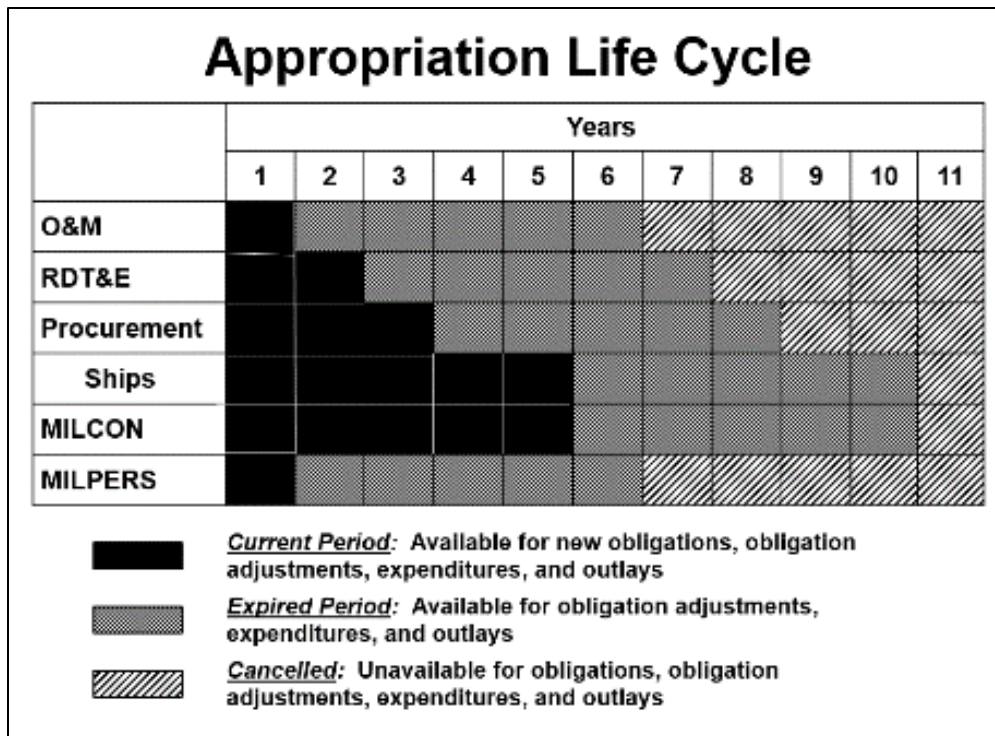


Figure 7. Appropriation Life Cycle. Source: DAU (2016, slide 9).

One of the defining policies surrounding O&M funding is the understanding of expense versus investment. The determination for an expense versus investment considers the intrinsic quality of an item. These qualities include considerations like durability (investment cost), consumability (operating cost), and the specific circumstances of the item's use or management in the acquisition. If definitions conflict, these fact specific considerations determine the case (Under Secretary of Defense (Comptroller), 2000, Vol. 2A, Ch. 1, p. 1-10). DOD FMR, Volume 2A, Chapter 1 provides the following guidance for making the expense versus investment determination:

Expenses are the costs incurred to operate and maintain the organization, such as personal services, supplies, and utilities.

Investments are the costs that result in the acquisition of, or an addition to, end items. These costs benefit future periods and generally are of a long-term character such as real property and personal property. (Under Secretary of Defense (Comptroller), 2000, Vol. 2A, Ch. 1 p. 1-10)

Historically, O&M funding could not be obligated to obtain services that cross to the next fiscal year without violating the bona fide needs rule; however, this made certain kinds of services difficult to support. The FY98 Defense Authorization Act changed the rules regarding severable services (DAP, n.d.). Presently, several exceptions exist for both supplies and services that cross the fiscal year.

(1) Non-severable Services

A non-severable service is a service with culminates in a single deliverable or completed effort (Murphy, R., 1996, p. 4). Non-severable services should be funded entirely with O&M funds from the fiscal year in which the need originates and awards (31 USC Section 1502 (a)). For example: a painting that culminates in a completely repainted building, should be funded completely in the fiscal year that painting was determined to be necessary. If work is set to begin on an effort in September of 2016 and will not be completed until January 2017, it is appropriately funded with current FY16 funds.

(2) Severable Services

For the DOD, a specific exemption allows for severable services that extend beyond fiscal years to be funded with current-year dollars, via 10 U.S.C. § 2410a. Under the terms of this exemption, severable services which cross fiscal years for no more than a period of 12 months are granted exemption to the terms of the ADA. For example, a weekly grass cutting service might be considered severable and properly funded through 30 September of one year, and use next year appropriations beginning in 1 October of each year. However, if the contract is awarded in April for a period ending in November of the same calendar year (the complete spring to fall season), the contract can be funded completely with current FY O&M appropriations. This is a particularly important exception because, due to the appropriations process discussed above, apportioned funds for the purchase of new fiscal year contracted goods and services are rarely available on 1 October of a new fiscal year.

### (3) Summary

The operational use and availability of O&M funding is heavily scrutinized making it extremely difficult for the services in spending year end dollars. The various restrictions and short time-frame must be met with critical questions regarding the quality, necessity, and availability of the requirement when funds are spent so heavily at year end. Prior to making an end of year award with O&M, past experience and GAO cases have ensured that additional scrutiny must be given to truly determine whether or not the award is truly needed (bone fide need rule), if the performance will start before the next fiscal year (ADA rule), and if the appropriation supports the kind of use appropriate for these funds (purpose).

## **F. FISCAL YEAR-END PROCESSES AND DRIVERS**

As mentioned throughout this research thus far, there are numerous drivers and policies contributing to the habits of year-end spending amongst the services. At present, a notion commonly accepted by industry is that fourth quarter (specifically September) is when the large majority of funds (of any color) are spent (Federal Times, 2015). In the context of O&M, certain potential drivers can be contemplated based on existing processes and include:

- The apportionment process
- The timing of appropriations and use of continuing resolutions
- The perception of excess funding and impending decrement in the next fiscal year
- The extended length Procurement Acquisition Lead Times (PALT)
- The O&M appropriations process itself
- The 80/20 GAO rule and congressional mandate

Over 30% of the Department of Navy spending is centralized in the fourth quarter every year, (Govini, Positioning for 2017). As with anything else in procurement, with an increase in speed, comes a decrease in quality and competition. The next chapter reviews specific data trends and analysis on the Departments spending between FY14–FY16.

A 2016 memorandum from the Secretary of the Army discusses some of these same points. For instance, this memo acknowledges that the Army focus on budget execution without due consideration of the outcomes leads to bad business practices to include the “use or lose” mindset and unwillingness to engage in practices that might be more efficient (Murphy, 2016, p. 2). The outcome of this memo is a set of directives to focus on measurement of outcomes, identification of the total cost of critical processes, and restrictions on use of budget execution information as a means to assessing the success of fiscal success and as a justification for automatic decrement to command programs in future allotments (Murphy, 2016, p. 2). These aims attempt to eliminate the “use or lose” mentality). The practical application and results of these measures is as of yet, not widely known, however the emphasis and discussion points coincide with many spending drivers considered in this research.

## G. O&M SPENDING TRENDS

Although the accepted opinion is that fourth quarter spending is astronomical, historical spending trends for fourth quarter obligations show that they are in the 25%–30% range. The United States Government Accountability Office (GAO) presented Congress with a report in March 2010 detailing DOD-wide fourth quarter obligation rates from 2006–2009 (Figure 8; GAO, 2010). This report concluded active and reserve components obligated between 27.6% and 29.5% of its O&M appropriations in the fourth quarters. For all colors of money during this period, the report concluded that the percentage of contract obligations competed was highest in the fourth quarter (GAO, 2010, pp. 35–38).

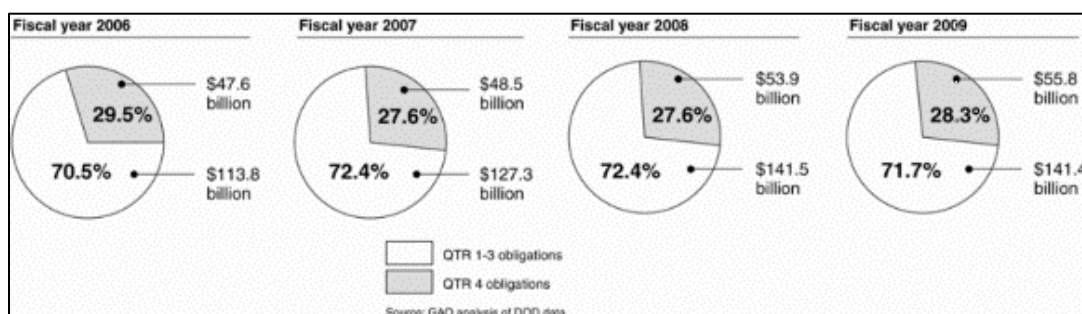


Figure 8. Q4 Obligation Rates for O&M-Active and Reserve Components.  
Source: GAO (2010).

In comparing the spend rates for 2006 to 2009, the obligation rates remained moderately consistent year-to-year. The report further dissects each year and outlines active components obligated 23.3% to 32.2% in the fourth quarter (between 23.3% and 27.1% for Navy), while reserve components obligated 19.6% to 41% in the fourth quarter (Navy Reserve: 19.7% to 26.2%; Marine Corps Reserve: 19.6% and 41%). In each case, the DOD officials posited that the obligation rates may appear higher in the fourth quarter due to supplemental funding provided late in the FY (GAO, 2010, pp. 20–25). This same report examined obligations by contract action and found no consistent pattern.

In August 2016, GAO released a report examining the yearly O&M spending trends from 2009–2015, as shown in Figure 9.

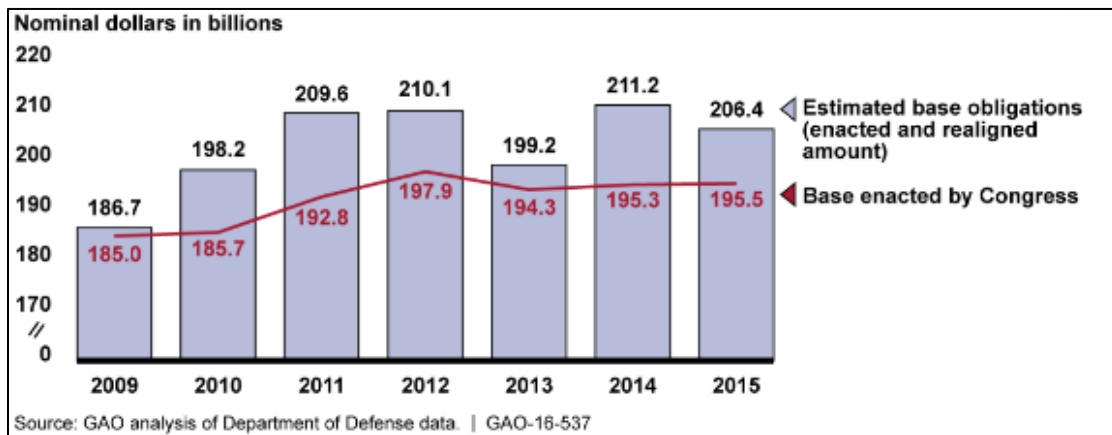


Figure 9. Enacted and GAO-Estimated Obligation Amounts for the DOD's Operation and Maintenance Base Accounts, FY2009–2015.  
Source: GAO (2016, p. 13).

GAO reports are based upon initial budget requests submitted and approved through Congressional appropriation. During year of execution, budget portfolios often alter due to mid-year reprogramming actions, decrements, and supplemental overseas contingency funds provided. GAO reports facts from a particular point in time. Due to allocations and realignments, the base implemented could be different from the originally enacted base.



As shown in Figure 10, the actual dollar value of changes from the baseline were largely equal between transfers and reprogramming requiring Congressional approvals versus reprogramming between budget activities that did not require Congressional approval (GAO, 2016). The GAO report discovered that the primary functions obligated above the initial baseline were base operating support, administrative and management functions, and mobilization (GAO, 2016, p. 14).

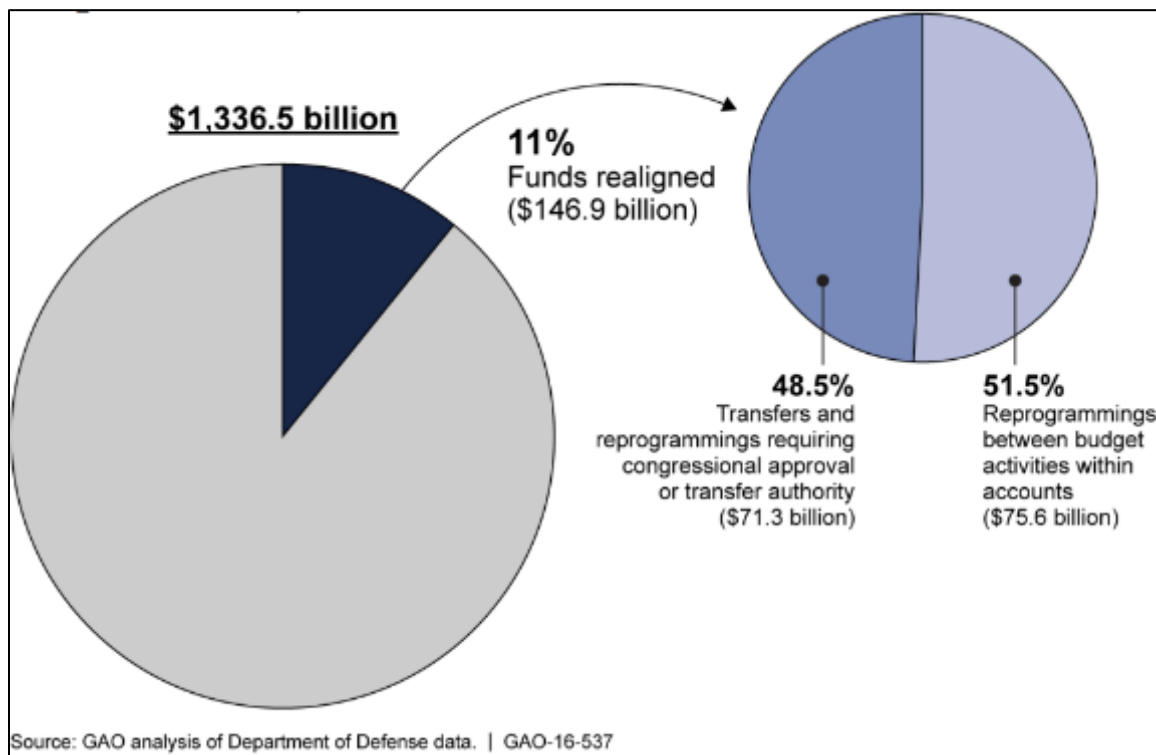


Figure 10. Operation and Maintenance Enacted Funding from Military Services' and Defense-Wide Agencies' Accounts that the DOD Realigned Using its Authorities, FY2009–2015. Source: GAO (2016, p. 12).

Finally, Mr. Derek Trunkey of the Congressional Budget Office (CBO) presented trends in O&M Spending for the DOD in June of 2016, analyzing O&M spending between 2000 and 2012. This presentation was followed-up with detailed analysis in a formal report on 5 January 2017. Figure 11 further discusses this growth trend (CBO, 2017).

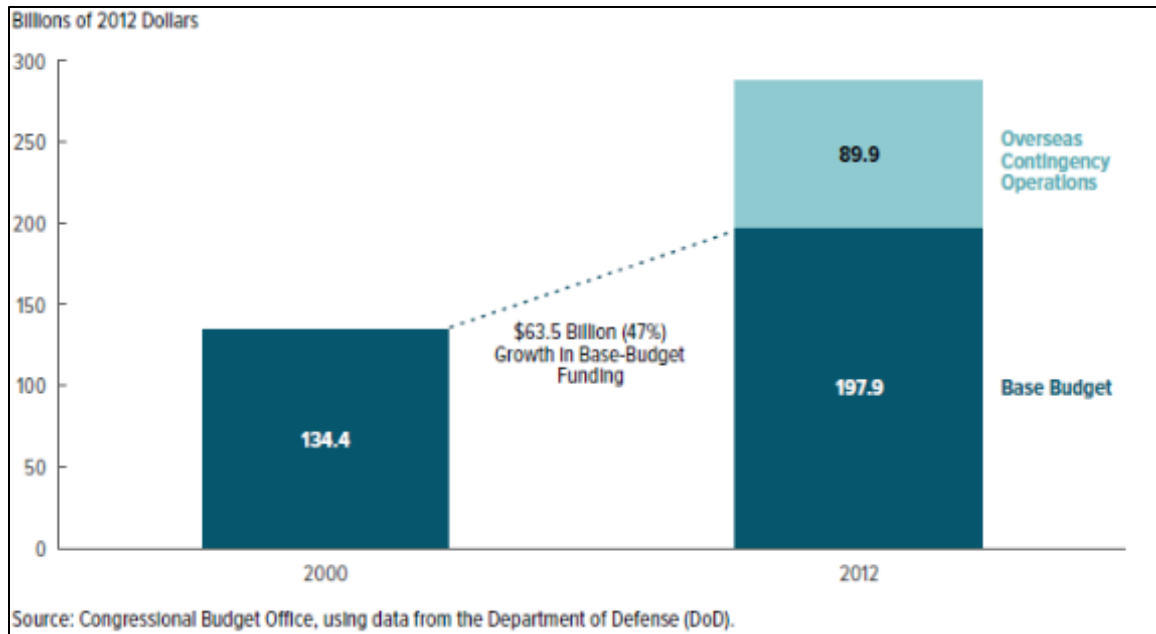


Figure 11. Growth in Funding for Operation and Maintenance between 2000 and 2012, after Removing Effects of Inflation. Source: CBO (2017, p. 20).

Total growth, after controlling for inflation, was \$63.5 billion, equivalent to a 47% increase (CBO, 2017, p. 20). This growth estimate did not contain additional Outside Continental United States (OCO) O&M dollars and reflects only the base budget. Figure 12 describes the breakout of this budget and describes what was and what was not well understood or tracked (CBO, 2017, p. 25).

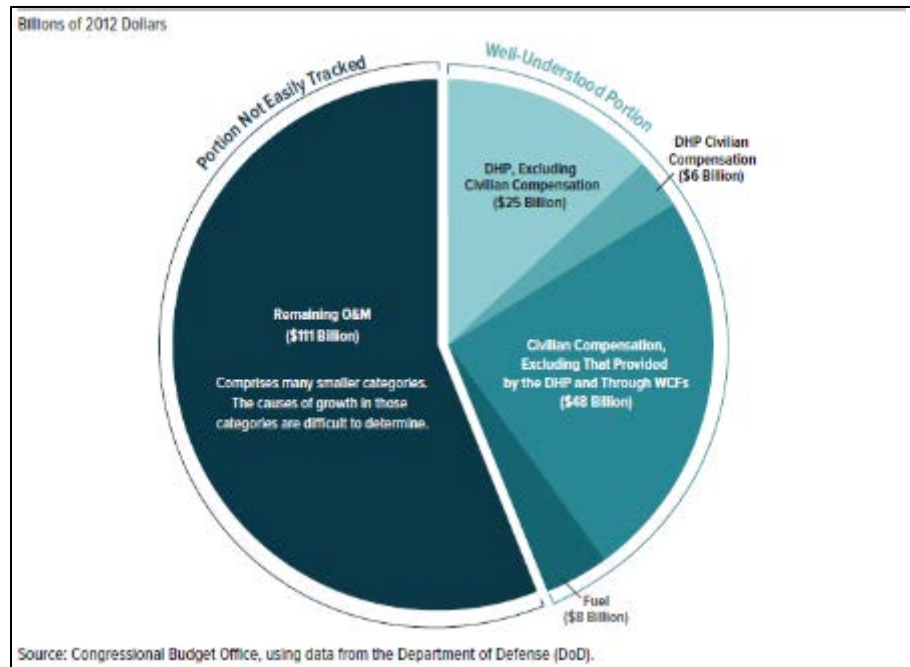


Figure 12. Portions of Base-Budget Funding for Operation and Maintenance that Are Well Understood and Those that Are Not Easily Tracked.  
Source: CBO (2017, p. 20).

The CBO reported the increase to the base O&M occurred despite falling personnel numbers and attributed increases largely to the Defense Health Program (DHP) and activities to support combat forces (CBO, 2017, p. 20). In the briefing, the CBO was able to explain many of these growth drivers, but had not been able to explain the growth in contracted facilities sustainment and non-depot equipment maintenance (Trunkey, 2016, p. 21). The report clearly indicated that over half the O&M budget was not easily tracked, leading to difficulty ascertaining growth factors.

The CBO report also details a macro view of O&M spending from 1980 to 2015, and shows both an increase in overall spending and presents the often concealed OCO O&M dollars. Figure 13 displays that the actual amount of Navy O&M is slightly increased, but the majority of the year-over-year increases are associated with Defense Wide Organizations to include the Defense Health Program Office of Secretary of Defense, Joint Chiefs of Staff, etc. (CBO, 2017, p. 10).

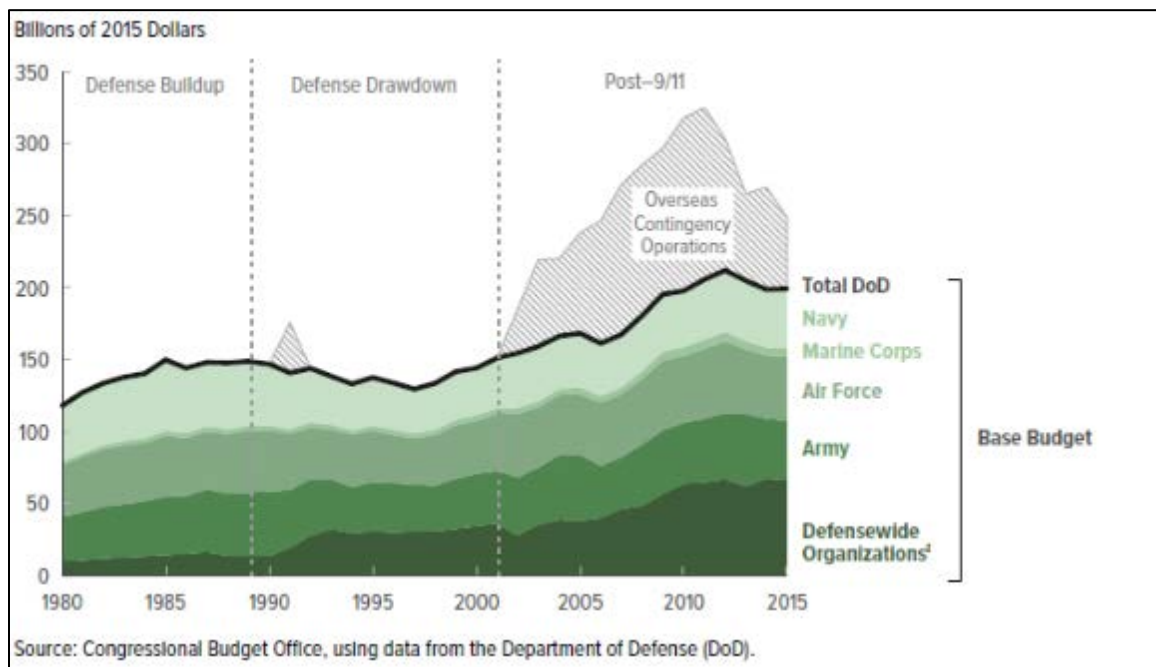


Figure 13. DOD's Total Funding for Operation and Maintenance, by Military Service, 1980–2015. Source: CBO (2017, p. 10).

Based on the current publicly available analysis, it is clear that concerns remain with O&M spending trends. The net effect of these reports indicates that, as with the total budget, the O&M costs have increased in the last twenty years. It appears that despite being able to see overall trends, the current overall budget for O&M is difficult to ascertain due to the OCO and O&M reporting practices of the last decade. Our research takes these overall O&M trends as context and attempt to examine and answer *when* things are obligated in the fiscal cycle and identify likely reasons *why* the might be obligated at that time.

As evident thus far, this avenue of research, and the question of how to improve Q4 spending is not new. In 1992, the Department of Justice (DOJ) obtained special authority to roll over up to 4% of annual revenue into a fund that could be used for up to five years on information technologies (I.T.) and related projects. (Liebman & Mahoney, 2013, p.5). Liebman and Mahoney estimated with the DOJ roll-over allowance, IT obligations in the fourth quarter reduced by 9.5 percentage points. This allows time for the department to appropriately contract and negotiate critical requirements rather than rush to spend funding on un-needed trivial supplies at year-end in a fear of losing funds. (Liebman & Mahoney, 2013, p. 29). Our research examines the current spending habits and attempt to assign rationales and drivers.

THIS PAGE INTENTIONALLY LEFT BLANK

### **III. DATA AND TRENDS**

#### **A. CAVEATS, CONTROLS, AND CONSIDERATIONS**

The data for this research was obtained through the DON and consists of information from the public Federal Procurement Data System (FPDS). The data included all spending by Navy components for fiscal years 2014 (Department of the Navy, 2017a), 2015 (Department of the Navy, 2015) and 2016 (Department of the Navy, 2017b) using the funding agency ID and name. The raw totals for each year are \$88.02B, \$88.6B, and \$96.3B, respectively.

We caveat that the data obtained are only as accurate as the data verified by individual FPDS report writers. As each query was run to obtain only actions performed within the fiscal year, it is the assumption of this team that such aberrations were manually added contract start dates. Finally, the full set of actions also included negative dollar contract actions. Negative dollar obligations represent such actions as removal of previous years' money for contract closeout purposes, adjustment for removing work completely from a contract, or reallocating current-year funding due to line of accounting errors. Money may be obligated, removed, and replaced within the year for a variety of administrative reasons. Assessing whether a negative obligation removed current-year funds and replaced them on a subsequent action is not feasible with this data. In the overabundance of caution, the negative dollar values were left as part of the data.

Despite these discrepancies, the overall data still effectively illustrates spending trends and habits of the monies obligated in the fiscal years. To control the data for only DON obligations for the fiscal year, each data set was scrutinized and adjusted for certain parameters. Actions showing a zero dollar obligations were removed as irrelevant to the data. The data provided by the DON additionally included a specific search function with the UIC/SBO claimant file based on the funding office ID to add the base supply office (BSO) name for each action. FPDS data represents actual contract execution. Amounts could vary when compared to the President's budget funding levels for the Department due to year of execution reprogramming, decrements/ marks, and supplemental funding.

## B. THE FEDERAL PROCUREMENT DATA SYSTEM

As stated, all data trends referenced in this chapter are obtained from the FPDS contract database, publically available. Data from FPDS was analyzed from fiscal years 2014–2016, operation and maintenance. FPDS is a publically available, web service, data system that houses and tracks all Federal contract actions. FPDS tracks various contract actions to include new contracts, modifications (both administrative and incremental), contract options and task order, and contract closeouts. FPDS houses numerous data elements available for each contract to include; dollar value, element of resource (EOR) or commitment item describing the product or service being procured, the service component and contract agency making the procurement, contract type, and the type of competition/bidding mechanism to describe the level of competition used. This chapter provides an assessment of contract data individually for fiscal years 2014, 2015, and 2016. This assessment includes an evaluation of data across the fiscal years and derive meaningful discussion on trends, habits, and implications of year-end spending. Tables 1 and 2 were created by the authors of this research and provide a list of data elements utilized in our analysis from the FPDS system and appropriations.

Table 1. FPDS Data Fields and Manual Extrapolation Used for this Research

Field Name	FPDS Data Element?	Manual Extrapolation from FPDS Data Field
Major Command Name	X	
Date Signed	X	
Quarter Signed		Date Signed
Month Signed		Date Signed
Portfolio	X	
OCC Description	X	
Referenced IDV PIIV	X	
Stand Alone Contract?		If/Then formula utilizing the Referenced IDV PIIV data
Appropriation	X	
Dollars Obligated	X	
Contracting Officers Business Size Selection	X	FY14 & FY16 Only
Extent Competed	X	FY14 & FY16 Only



Table 2. Analyzed FPDS Appropriation Filters

Appropriations Analyzed
Operation & Maintenance, Navy
Operation & Maintenance, Marine Corps
Operation & Maintenance, Navy Reserve
Operation & Maintenance, Marine Corps Reserve
Operation & Maintenance, Recovery Act, Navy
Operation & Maintenance, Recovery Act, Navy Reserves
Operation & Maintenance, Recovery Act, Marine Corp

## C. DATA AND TRENDS WITHIN NAVY SPENDING

### 1. FY14 Data Trends within Navy Spending

FY14 data (Department of the Navy, 2017a) is as of 30 September 2014 and has been filtered to reflect only the O&M appropriations with the Navy and Marine Corps. As of 23 February 2017, FPDS reported obligations for contract data within the Navy and Marine Corps of \$19,851,623,556.41 (Department of the Navy FPDS Data, 2017a). The following figures were developed from the FPDS data sets provided by the DON depict different views of the contracted data sets to include time-phasing, output by command, vehicle delivery method via indefinite delivery contract (IDC) versus Stand Alone award, extent of competition initiated during award, and utilization of small business contracts. Figure 14 provides overall obligations and number of contract actions by quarter and Figure 15 provides obligations and number of contract actions by month in each quarter.

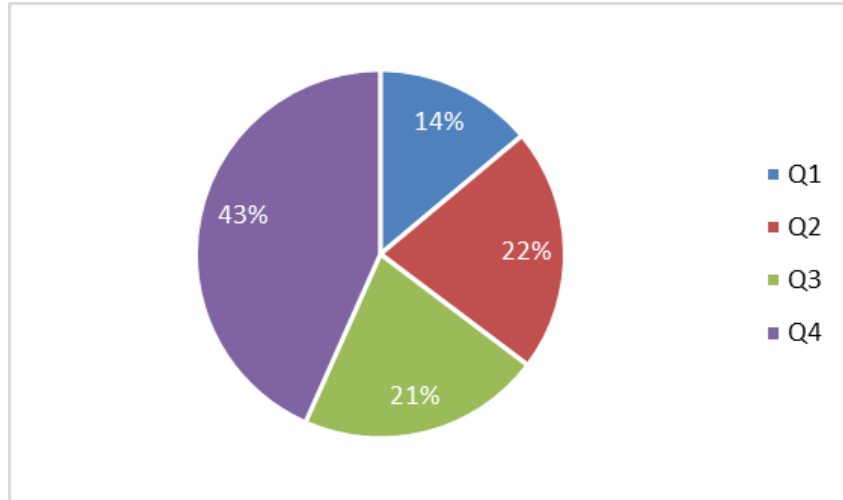


Figure 14. FY14 Total Obligations by Quarter. Adapted from Department of the Navy (2017a).

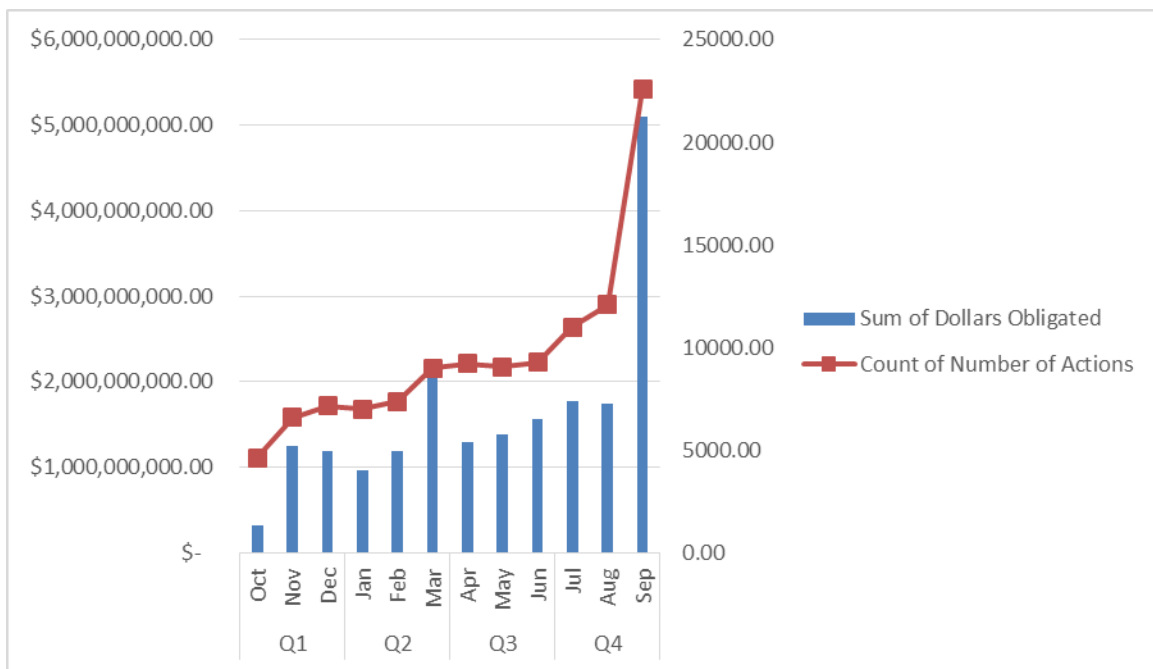


Figure 15. FY14 Navy/Marine Obligations over Time. Adapted from Department of the Navy (2017a).

Figure 16 depicts a trend of a steady increase with the highest obligation of dollars heavily condensed in the last month of FY14 Q2 and FY14 Q4. The number of actions steadily increased throughout the year, peaking in the last month in Q4. Fourth quarter obligations represent 43% of total contract obligations for the Navy and Marine Corps in FY14, and 40% of the total number of contract actions (Department of the Navy, 2017a). To further compound this, the month of September alone represents 26% of total obligations, and 20% of the total number of contract actions being executed in the fiscal year (Department of the Navy, 2017a).

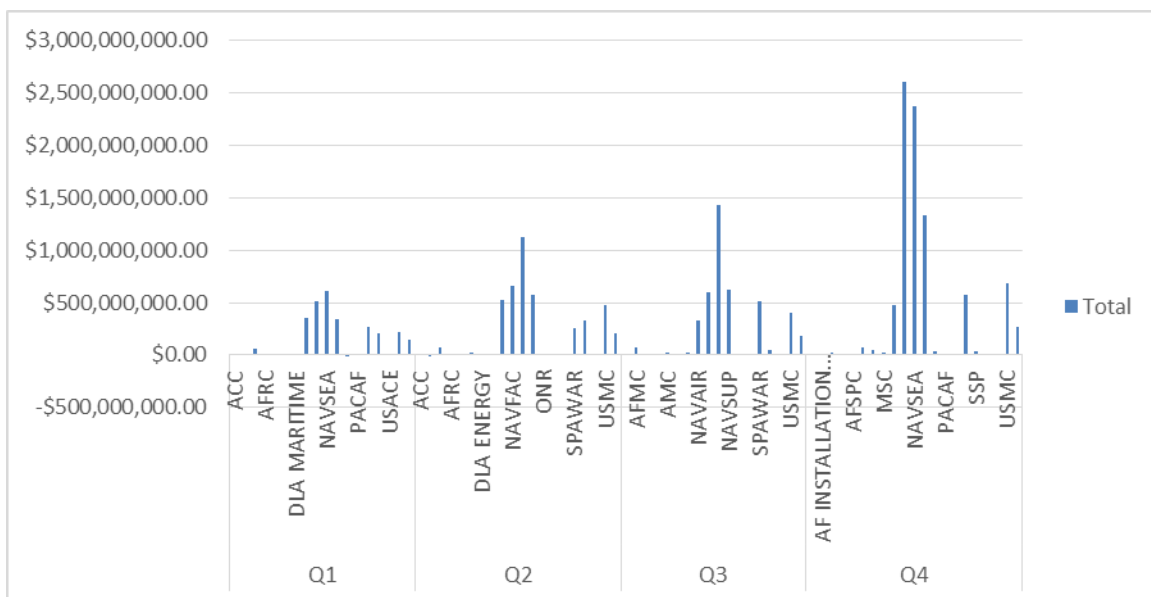


Figure 16. FY14 Command Obligations by Quarter. Adapted from Department of the Navy (2017a).

Data were summarized by Major Command to facilitate analysis of who obligated dollars and at what points during the fiscal year. This analysis could help provide meaning in the type of contracts actions occurring during the fiscal year, and help identify some of the factors driving the service into late contract awards.

The obligations trends for different commands represent a mix of increased and decreased spending over the fiscal year, although the trend remains with higher execution

centralized in the fourth quarter. Figure 17 provides the six commands with the highest rate of obligated dollars for FY14.

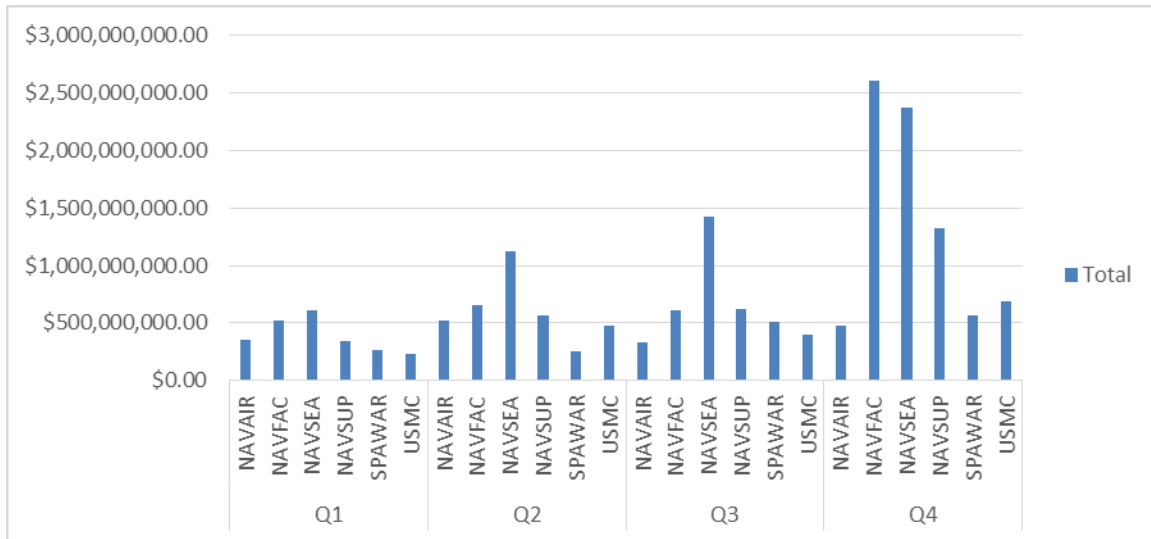


Figure 17. FY14 Obligations by Six Major Commands and Quarter.  
Adapted from Department of the Navy (2017a).

Pairing down the data by the major six commands shows O&M awards are predominantly obligated by the Naval Facilities Engineering Command (NAVFAC), Naval Sea Systems Command (NAVSEA), Naval Supply Systems Command (NAVSUP), the Space and Naval Warfare Systems Command (SPAWAR), and the United States Marine Corps (USMC). Chapter IV further analyzes the mission for these commands to understand if there is a link between mission demands and contract awards, or if this is an example of unneeded requirements being caught in the year-end rush to execute before expiration.

Data within Figure 18 examines the extent to how contracts are structured and awarded throughout the fiscal year. The intent is to examine if contract structure and methodology for awards change as we get closer to year-end spending. Figure 18 also examines the trends in number of actions and obligations for definitive contracts verses orders under IDC).

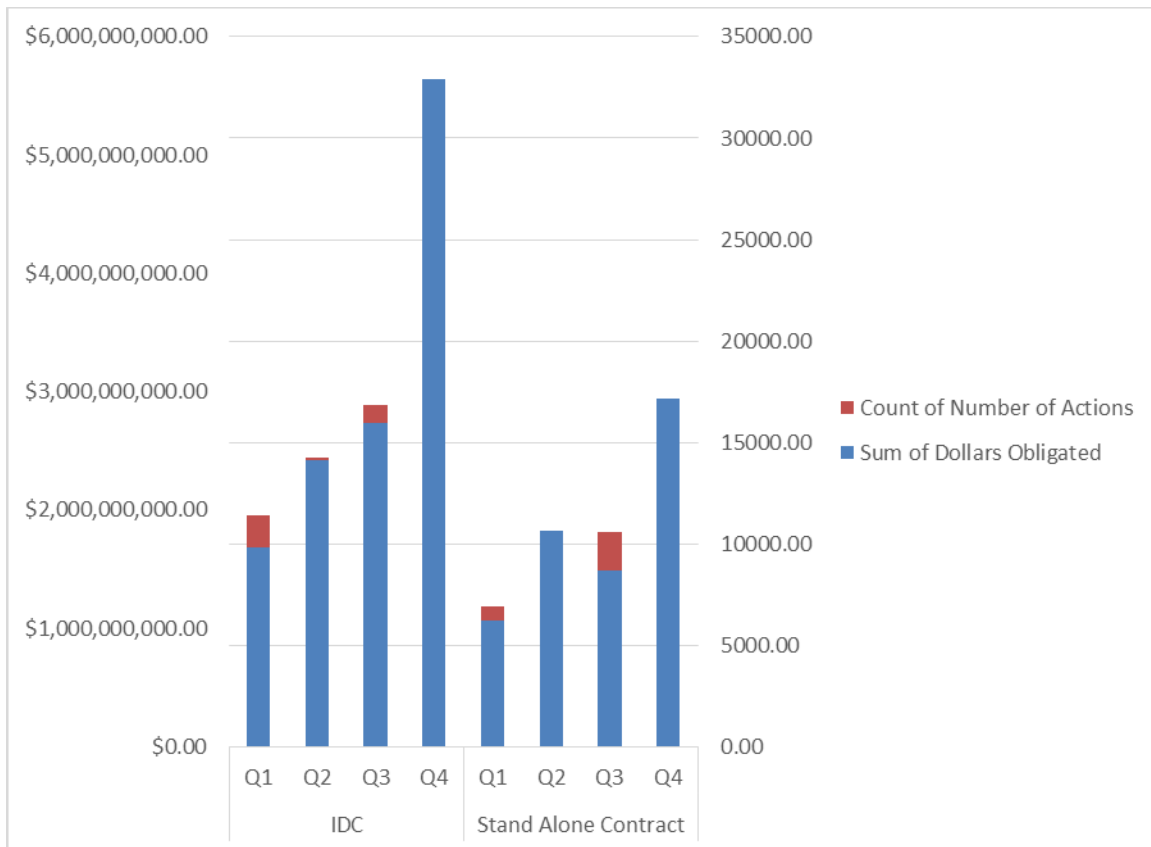


Figure 18. FY14 Obligations and Number of Actions by IDC versus Stand-Alone Contract. Adapted from Department of the Navy (2017a).

The number of IDC type contracts executed in the fourth quarter of the FY represents 29% of total obligations at \$5.6 billion, and 25% of total number of contract awards (Department of the Navy, 2017a). Stand-alone contracts also increased in contract actions during the fourth quarter, but not to the extent of IDC contract actions. In addition to number of contract awards, the data show the value of contract obligations has significantly increased in IDC contracts in the fourth quarter. Chapter IV further investigates the potential rationale and implications of awards for indefinite contracts occurring late in the fiscal year. Figure 19 examines the extent competed by quarter, whether via simplified acquisition, fair opportunity on orders to IDCs, or full and open competition on definitive contracts.

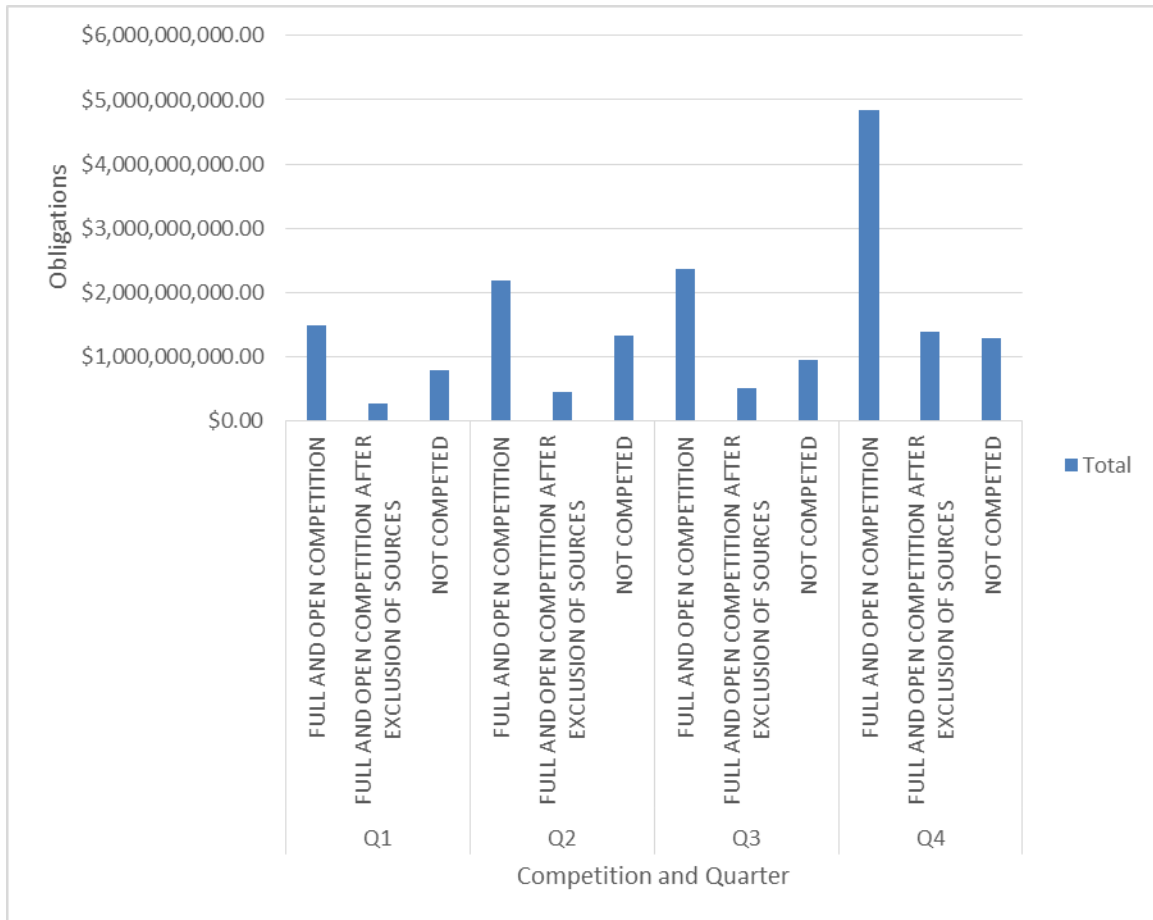


Figure 19. FY14 Extent Competed by Quarter. Adapted from Department of the Navy (2017a).

Full and open competition marks the highest competitive structure for contract awards throughout FY14, but jumps to over \$4.8 billion in dollars obligated in the fourth quarter of the fiscal year (Department of the Navy, 2017a). Figure 20 examines contract obligations by performing business size.

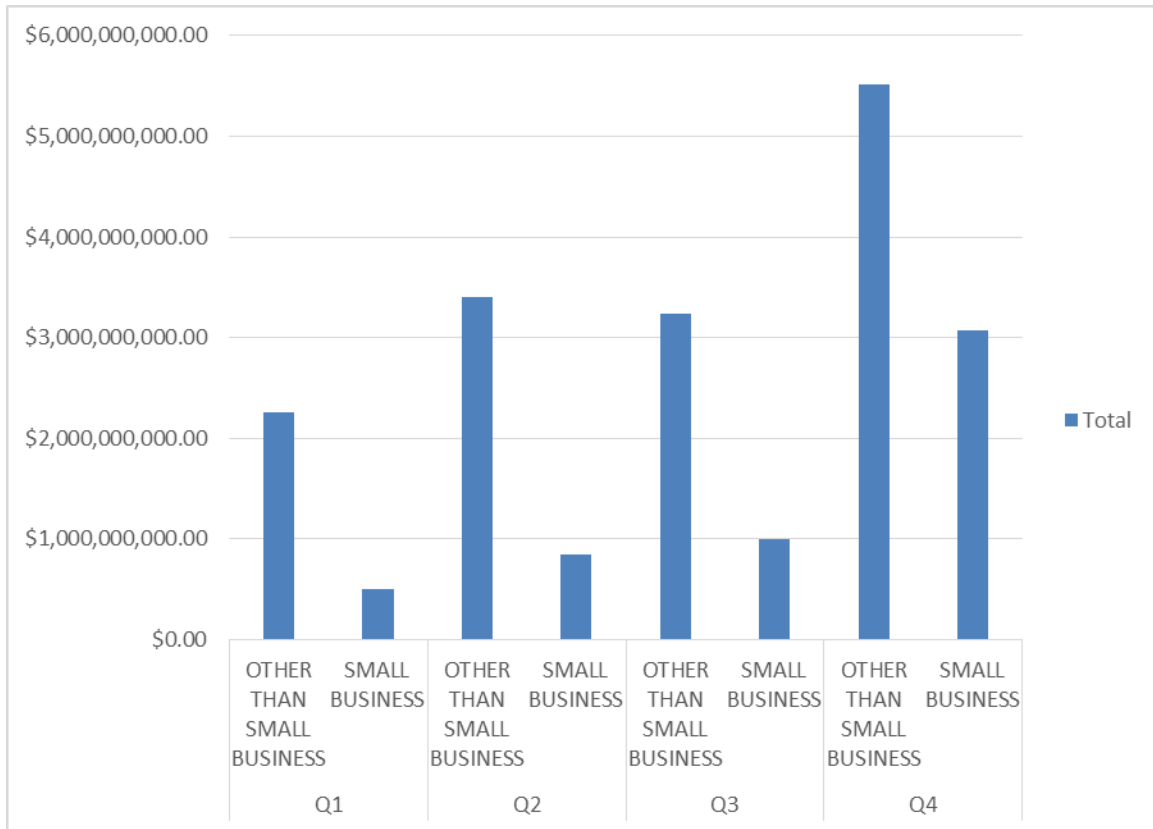


Figure 20. FY14 O&M Obligations by Business Size and QTR. Adapted from Department of the Navy (2017a).

Contract awards by company size do not appear to trend differently due to year-end rush in O&M spending. Large business, labeled “Other than small business” awards, show a \$2 billion increase in contract awards in the fourth quarter, but the trend of categorization remains relatively the same throughout the year where other than small business contracts significantly exceed small business award determinations.

Finally, trends analyzing the overall obligations by product service code (PSC) portfolio name were examined. To fully analyze spending in hardware requires inclusion of hundreds of different North American Industry Codes (NAICS) and did not yield data suitable for trend examination. The intent of this data analysis is to identify trends in types of requirements services are procuring throughout the year, and if trends change during the fourth quarter. Figure 21 displays overall categories of contract awards in

FY14 and Figure 22 details the level of categories of contract awards executed only in the fourth quarter.

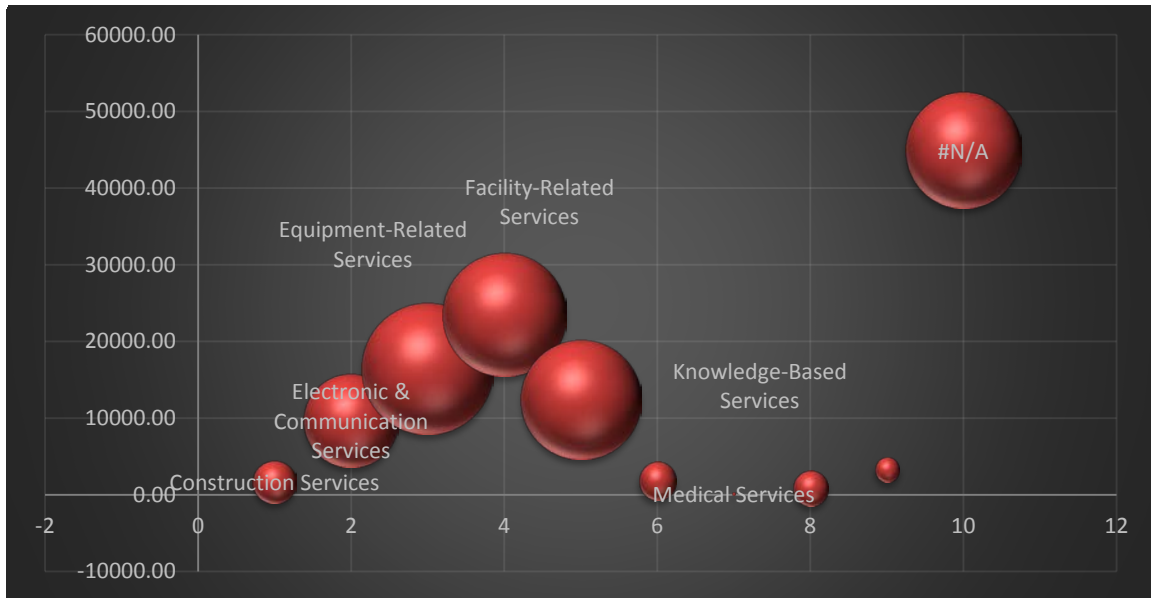


Figure 21. FY14 Portfolio by Obligations and Number of Actions. Adapted from Department of the Navy (2017a).

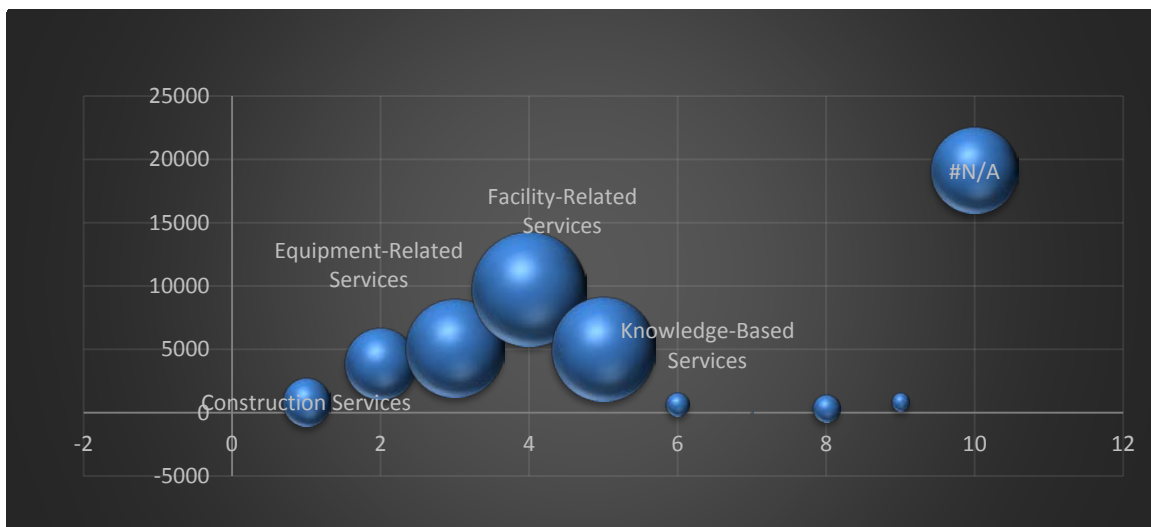


Figure 22. 4QFY14 Portfolios by Number of Actions. Adapted from Department of the Navy (2017a).



The type of requirements executed throughout the fiscal year do not appear to fluctuate at year end processing. Facility related services trend throughout the fiscal year as the top portfolio for contract execution, followed by equipment related services and knowledge-based services. The push for year-end spending does not appear to fluctuate in the type of requirements awarded at year end, with the O&M account according to this data for FY14. Obligations coded as #N/A are for a mixture of non-categorized actions that are purely hardware. This appears to be an inconsistency in coding in FPDS-NG, as several actions coded for hardware were also associated with the service portfolios.

## 2. FY15 Data Trends within Navy Spending

FY15 data (Department of the Navy, 2015) is as of 20 October 2015 and has been filtered to reflect only the O&M appropriations with the Navy and Marine Corps. As of 20 October 2015, FPDS reported obligations for FY15 contract data within the Navy and Marine Corps of \$18,047,399,967.88, executing over 110 thousand contract actions throughout the fiscal year (Department of the Navy, 2015). Similar to the FY14 data, Figures 23–29 depict different views of the contracted data sets to include time-phasing, output by command, and vehicle delivery method via IDC versus Stand Alone award. Data were not available for the FY15 data-set to analyze the extent of competition initiated during award, and utilization of small business contracts. Figure 23 provides overall obligations and number of contract actions by quarter and Figure 24 provides obligations and number of contract actions by month in each quarter.

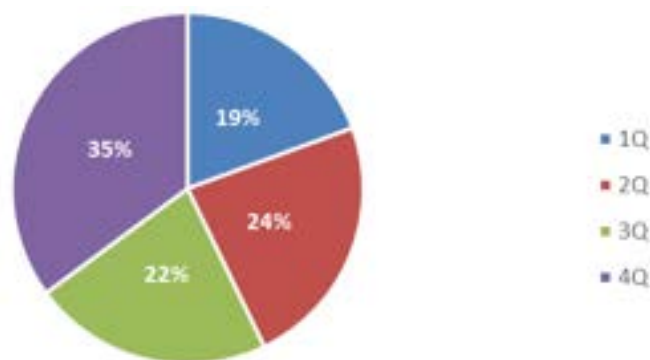


Figure 23. FY15 Total Obligations by Quarter. Adapted from Department of the Navy (2015).

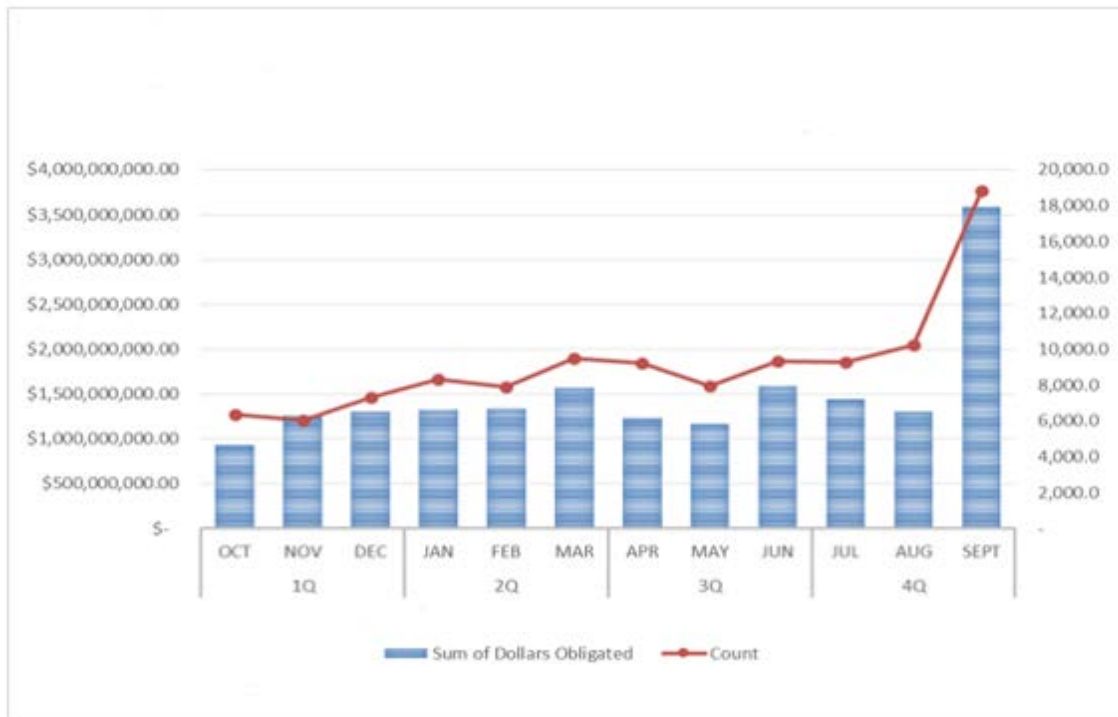
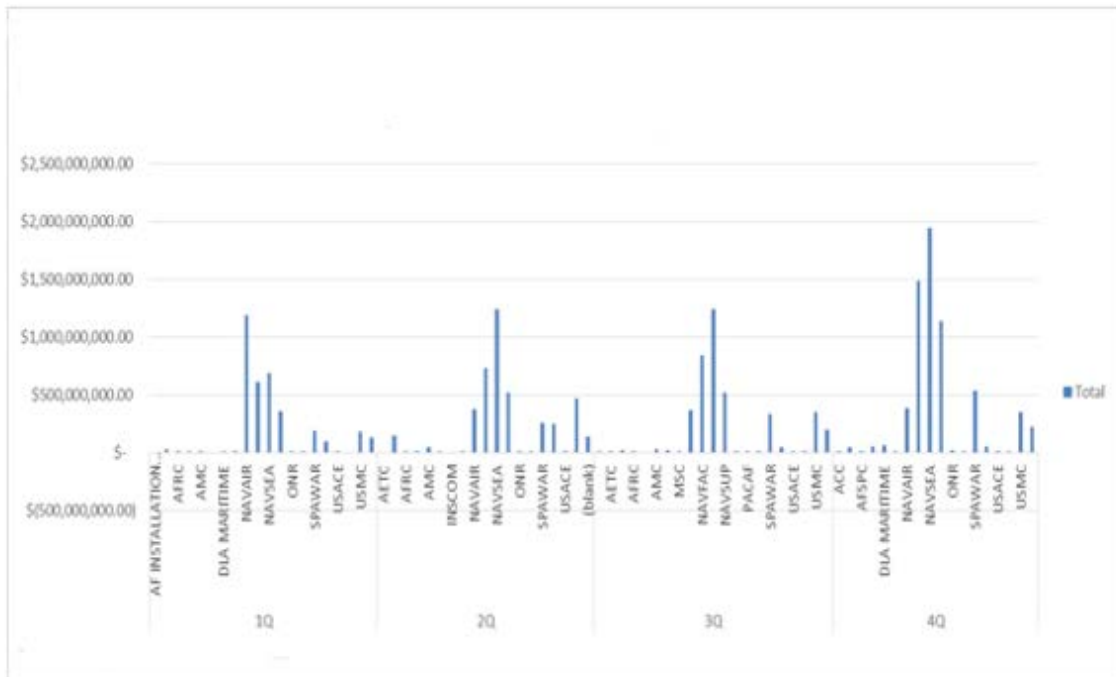


Figure 24. FY15 Obligations Shown by Actions and Timelines. Adapted from Department of the Navy (2015).

As in FY14, the data shows a steady increase in trending with the highest obligation of dollars heavily condensed at the fourth quarter. The number of contract actions appear to dip in the second month of each quarter and then sharply increase in the month of September. Fourth quarter obligations represent 35% of total contract obligations for the Navy and Marine Corps in FY15, and 35% of the total number of contract actions. To further compound this, the month of September alone represents 20% of total obligations, and 17% of the total number of contract actions being executed in the fiscal year. Figure 25 shows the data for FY15 as obligated by major commands, depicting trends in commands executing contract awards throughout the fiscal year.



The obligations trends for different commands represent a mix of increased and decreased spending over the fiscal year, with higher execution centralized in the fourth quarter. The six commands depicting the highest rate of obligated dollars remains consistent from FY14 data sets as NAVFAC, NAVSEA, NAVSUP, NAVAIR, SPAWAR and USMC (Department of the Navy, 2015). Figure 26 summarizes obligations FY15 data for these major commands.

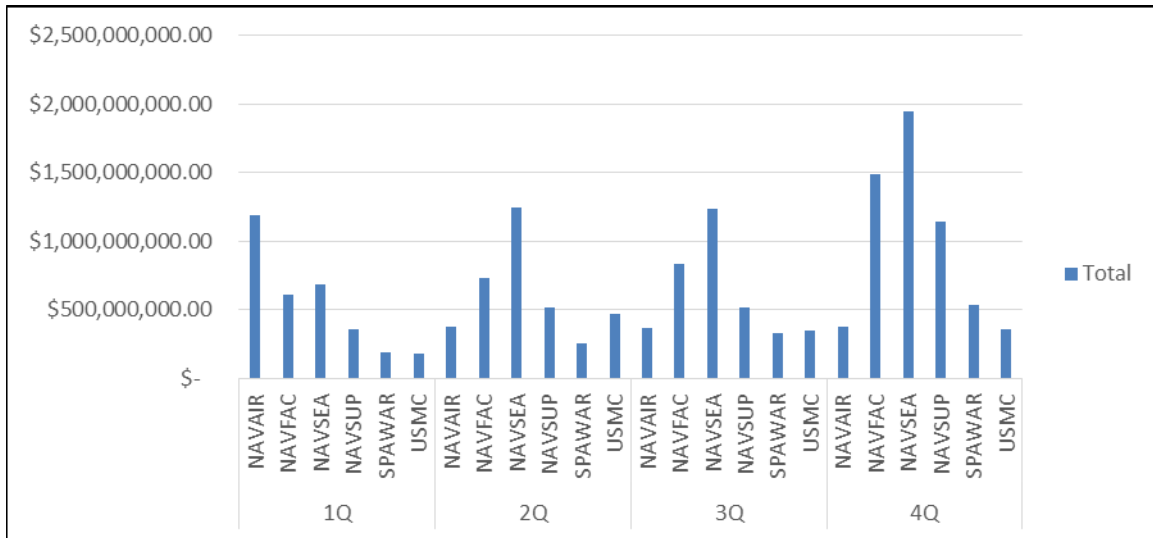


Figure 26. FY15 Obligations by Six Major Commands and Quarters. Adapted from Department of the Navy (2015).

Fourth quarter data, as shown throughout this analysis, depicts an increase in overall contract awards and obligations, but does not appear to trend differently by executing command as compared to the remainder of the fiscal year. The six major commands shown, trend higher in execution throughout the fiscal year, not just the fourth quarter.

Figure 27 examines the extent to how contracts are structured and awarded throughout the fiscal year. The intent is to examine if contract structure and methodology for awards change as we get closer to year-end spending.

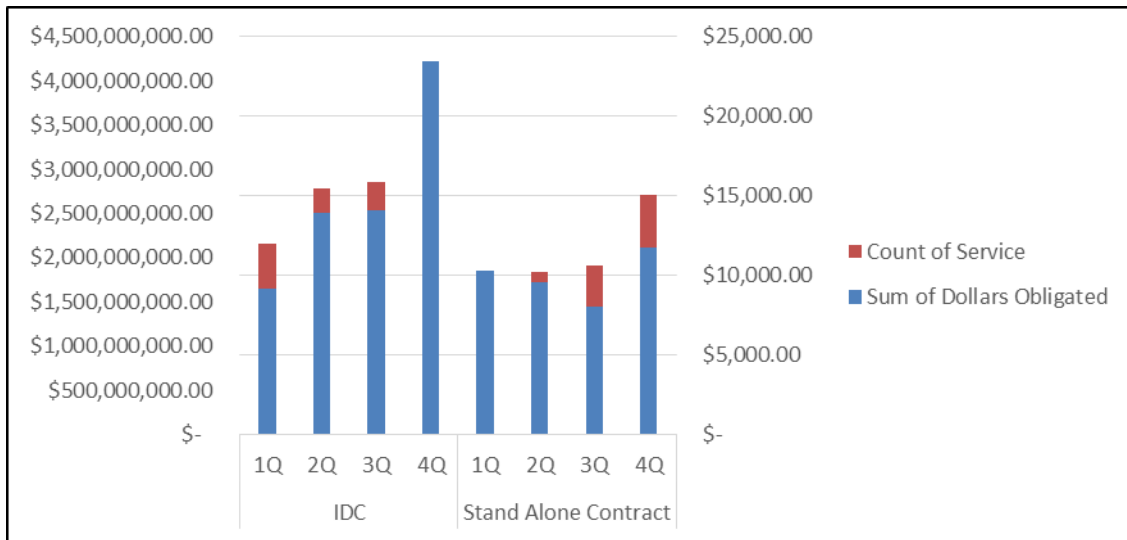


Figure 27. FY15 Obligations and Number of Actions by IDC versus Stand-Alone Contract. Adapted from Department of the Navy (2015).

The number of orders against IDC type contracts executed in the fourth quarter of the fiscal year represents 23% of total obligations at \$4.2 billion and 21% of total number of contract awards. Stand-alone contracts also display an increase in contract actions in the fourth quarter, but not to the extent of IDC contract actions. In addition to number of contract awards, the data show the value of contract obligations (sum of dollars obligated) has significantly increased in IDC contracts in the fourth quarter.

Finally for FY15, trends analyzing the overall obligations by portfolio name were examined. Figure 28 displays overall categories of contract awards in FY15. Figure 29 then details the level of categories of contract awards executed only in the fourth quarter. Portfolio categories for equipment, which display as #N/A, were removed from this graphic.

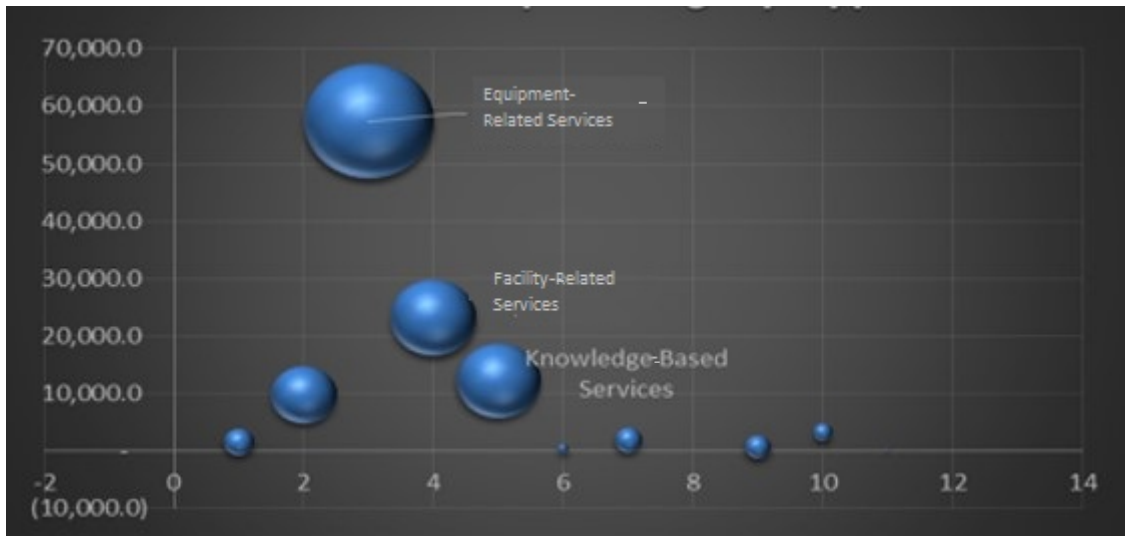


Figure 28. FY15 O&M Spending by Type. Adapted from Department of the Navy (2015).

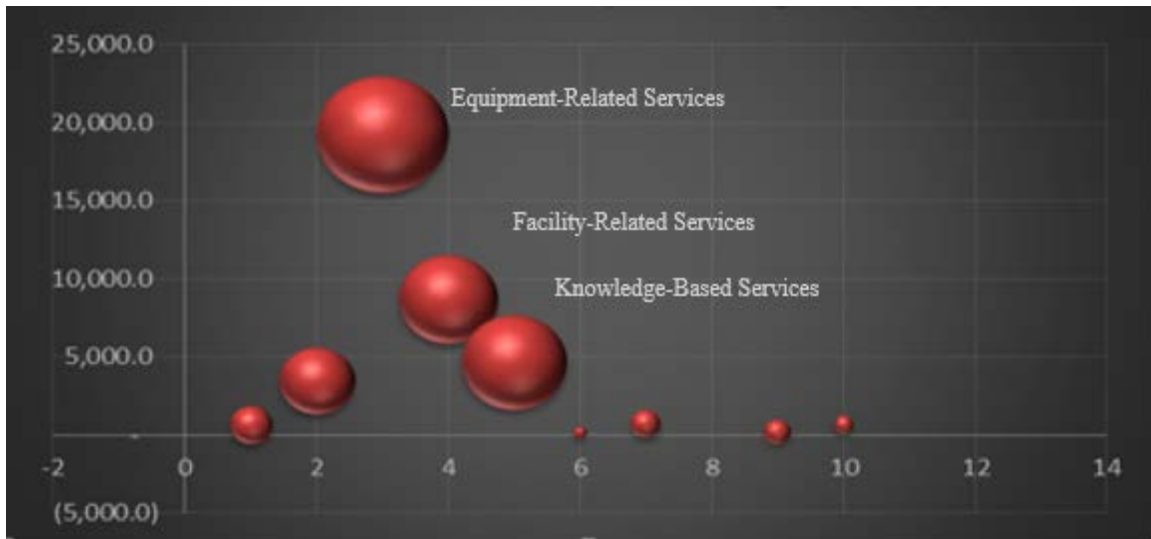


Figure 29. 4QFY15 O&M Spending by Type. Adapted from Department of the Navy (2015).

Similar to FY14 data, the type of requirements executed throughout FY15 do not appear to fluctuate at year end processing. Equipment related services lead the execution, followed by facility related services and knowledge-based services. The push for year-end spending does not appear to fluctuate in the type of requirements awarded at year end with the O&M account according to this data for FY15.

### 3. FY16 Data Trends within Navy Spending

FY16 data (Department of the Navy, 2017b) is as of 28 February 2017 and has been reduced to reflect only the O&M appropriations with the Navy and Marine Corps. As of 30 September 2016, FPDS reported obligations for contract data within the Navy and Marine Corps of \$18,317,291,644.65; executing over 105 thousand contract actions throughout the fiscal year (Department of the Navy, 2017b). As shown in the FY14 and FY15 data, the following charts depict different views of the contracted data sets to include time-phasing, output by command, and vehicle delivery method via IDC versus Stand Alone award. Figure 30 provides overall obligations and number of contract actions by quarter and figure 31 provides obligations and number of contract actions by month in each quarter.

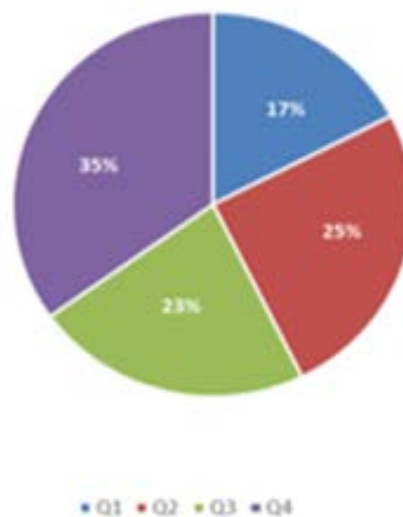


Figure 30. FY16 Total Obligations by Quarter. Adapted from Department of the Navy (2017b).

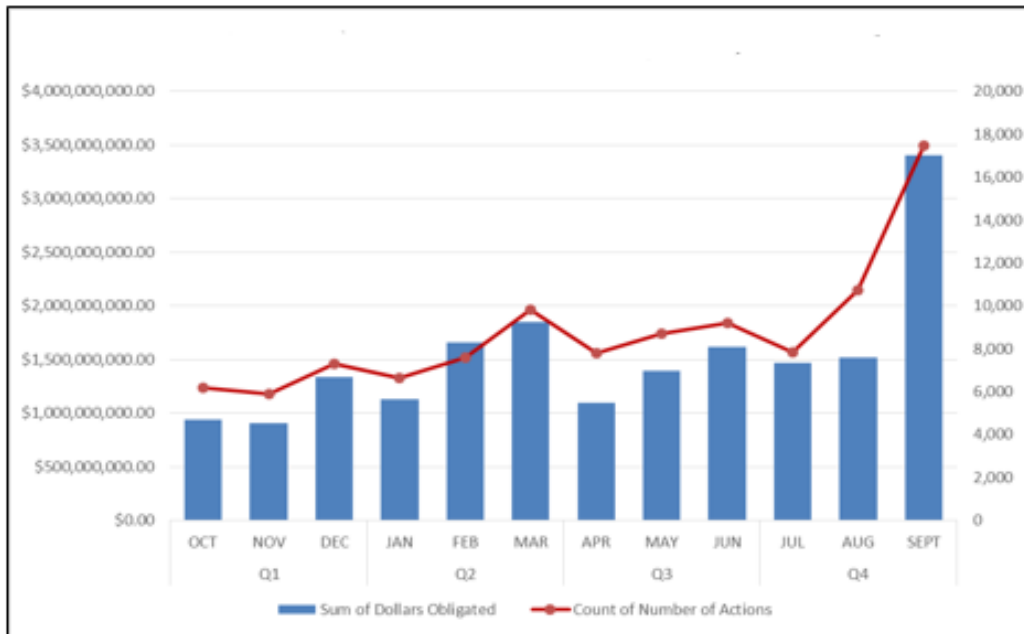


Figure 31. FY16 Navy/Marine Obligations and Actions Shown by Timeline.  
Adapted from Department of the Navy (2017b).

As in FY14 and FY15, the data illustrates a steady increase in trending with the highest obligation of dollars heavily condensed at the fourth quarter. Q4 obligations represent 35% of total contract obligations for the Navy and Marine Corps in FY15 and 34% of the total number of contract actions. To further compound this, the month of September alone represents 19% of total obligations, and 17% of the total number of contract actions being executed in the fiscal year. Figure 32 shows the data for FY16 as obligated by Major Command, depicting trends in commands executing contract awards throughout the fiscal year.



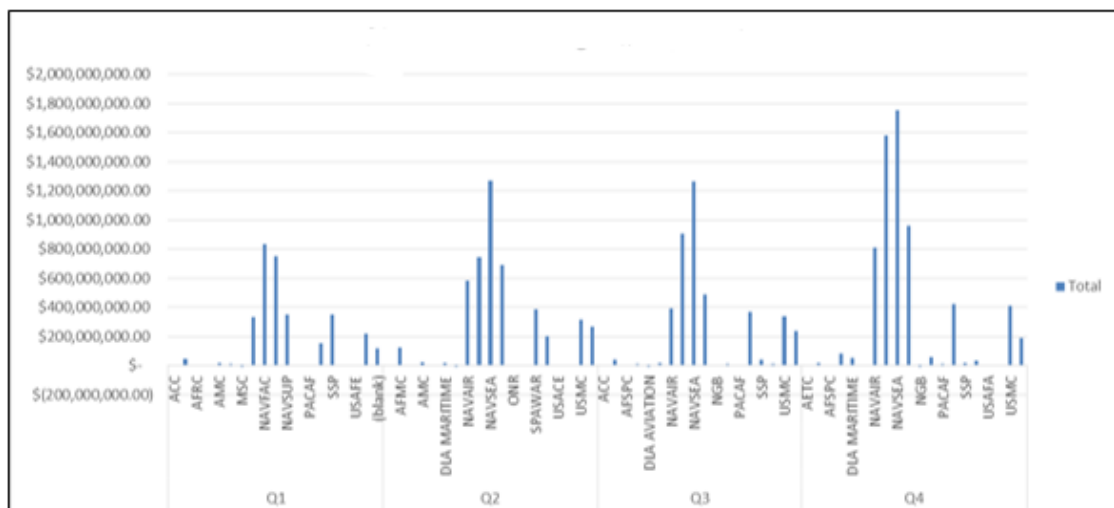


Figure 32. FY16 Command Obligations by Quarter. Adapted from Department of the Navy (2017b).

The obligations trends for different commands represent a mix of increased and decreased spending over the fiscal year, with higher execution centralized in the fourth quarter. The six commands depicting the highest rate of obligated dollars are similar to FY14 and FY15 data sets, with NAVSEA, NAVAIR, NAVFAC, NAVSUP, SPAWAR, and USMC. Figure 33 shows FY16 data for these major commands.

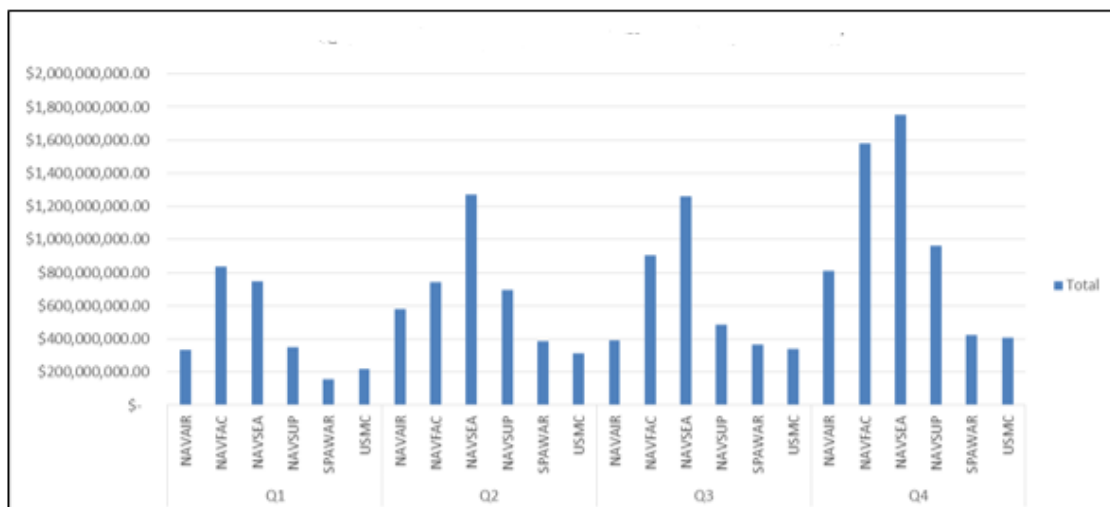


Figure 33. FY16 Obligations by Six Major Commands and Quarter. Adapted from Department of the Navy (2017b).

Similar to FY14 and FY15, fourth quarter data depicts an increase in overall contract awards and obligations, but does not appear to trend differently by executing command as compared to the remainder of the fiscal year. The six major commands shown, trend higher in execution throughout the fiscal year, not just the fourth quarter.

Figure 34 examines the extent to how contracts are structured and awarded throughout the fiscal year. The intent is to examine if contract structure and methodology for awards change as we get closer to year-end spending.

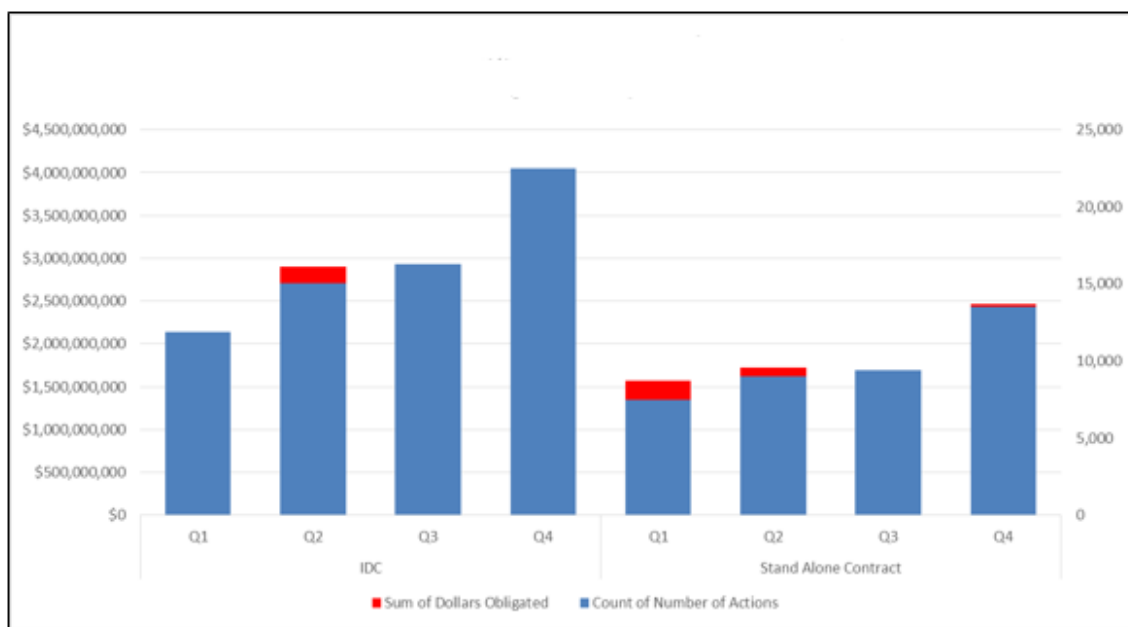


Figure 34. FY16 Obligations and Number of Actions by IDC versus Stand-Alone Contract. Adapted from Department of the Navy (2017b).

The number of IDC contracts executed in the fourth quarter of the fiscal year represents 21% of total obligations at \$3.9 billion and 21% of total number of contract awards. Stand-alone contracts also display an increase in contract actions in the fourth quarter, but not to the magnitude of IDC contract actions. In addition to number of contract awards, these data depict the value of contract obligations (sum of dollars obligated) has significantly increased in IDC contracts in the fourth quarter.

Finally for FY16, trends analyzing the overall obligations by portfolio name were examined. Figure 35 displays overall categories of contract awards in FY16 and Figure 36 displays the level of categories of contract awards executed only in the fourth quarter. As with the 2015 data, Portfolio categories for equipment, which display as “#N/A,” were removed from this graphic.

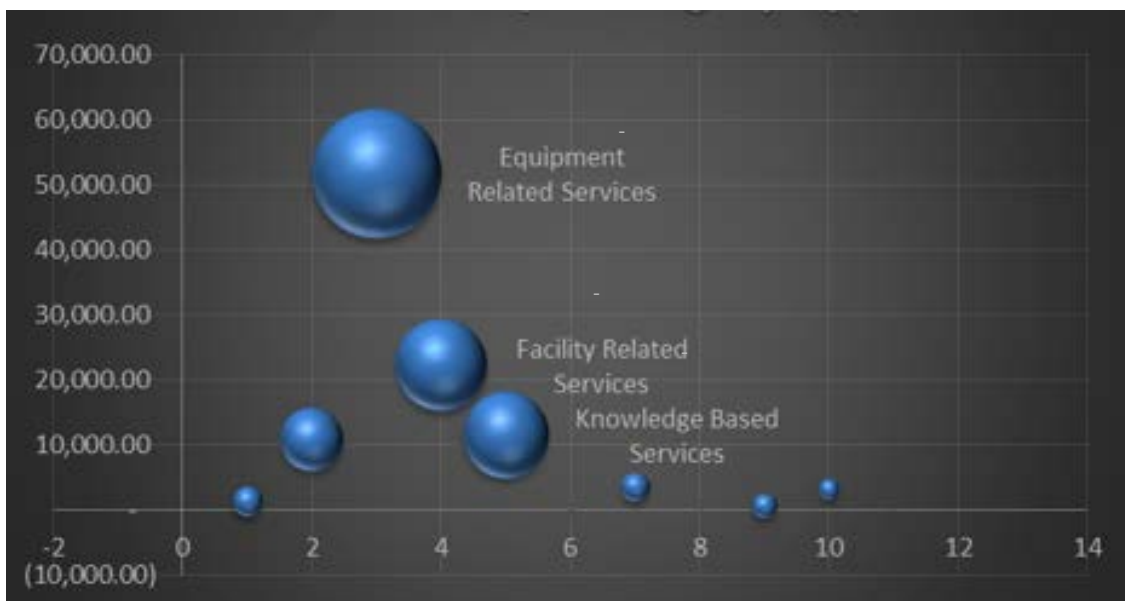


Figure 35. FY16 O&M Spending by Type. Adapted from Department of the Navy (2017b).

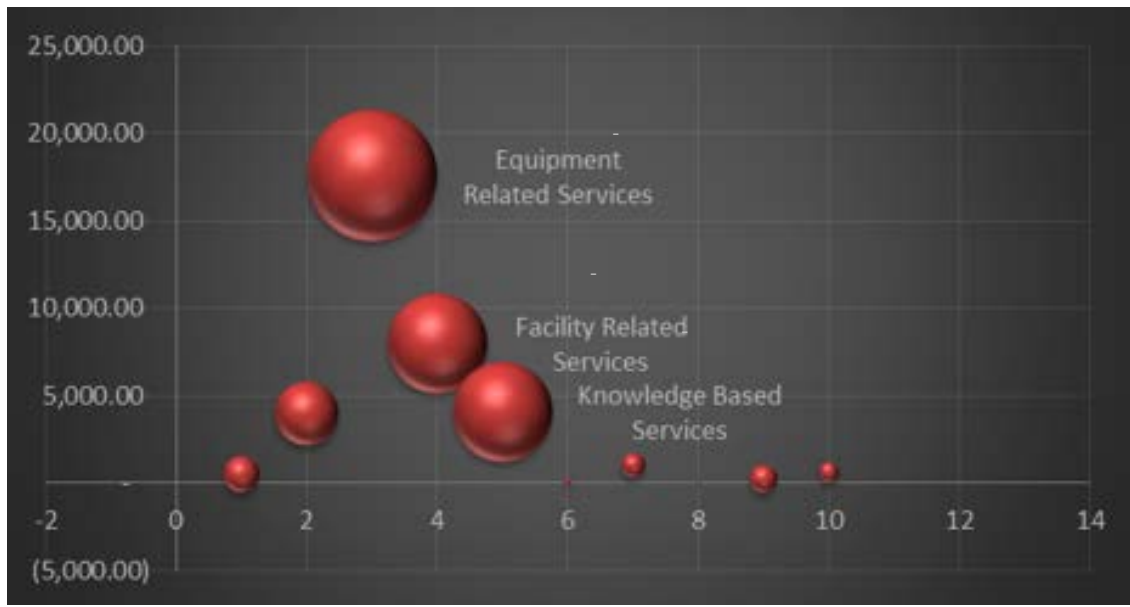


Figure 36. 4QFY16 O&M Spending by Type. Adapted from Department of the Navy (2017b).

Similar to FY14 and FY15 findings, the type of requirements executed throughout FY16 do not appear to fluctuate at year end processing. Equipment related services lead the execution, followed by facility related services and knowledge-based services. The push for year-end spending does not appear to fluctuate in the type of requirements awarded at year end with the O&M account.

## **IV. PROJECT FINDINGS AND ANALYSIS**

### **A. TIMING MATTERS**

So you may be asking yourself at this point, what does all of these data really mean? Throughout this chapter, we identify the trends and characteristics of the FY14–FY16 data points and attempting to derive answers, or possibly additional questions, to that very question. Total O&M contractual spending for Navy and Marine Corps range from \$88-\$96 billion across fiscal years FY14–16. O&M dollars represent roughly 20–23% of the overall contracts spending in the Navy and Marine Corps each fiscal year. Federal procurement (contract spending) is the category with the highest discretion, and impact, over timing of obligations and spending in any given fiscal year. This category is the heart of government spending and represents the procurement of all equipment, facilities, and support personnel. Although small (roughly 20%), this category packs the largest bang for the departments dollar in meeting the departments campaign plan. Without this funding, the Navy would have none of the funding critical for day to day operations, to include a variety of services need to maintain ships, different kinds of training, various kinds of engineering services, and no general support. This funding is the glue that fills in those constant needs of an operating force.

Figure 37 and 38 provide a summary of FY14 through FY16 and show there are two central points in any given fiscal year of escalated contract activity, in both obligations and number of contract actions. As shown in Figure 39, March and September trend on the highest period of contract activity in any given fiscal year. Now why is that? What drives this consistent trend in any given fiscal year for the O&M appropriation?

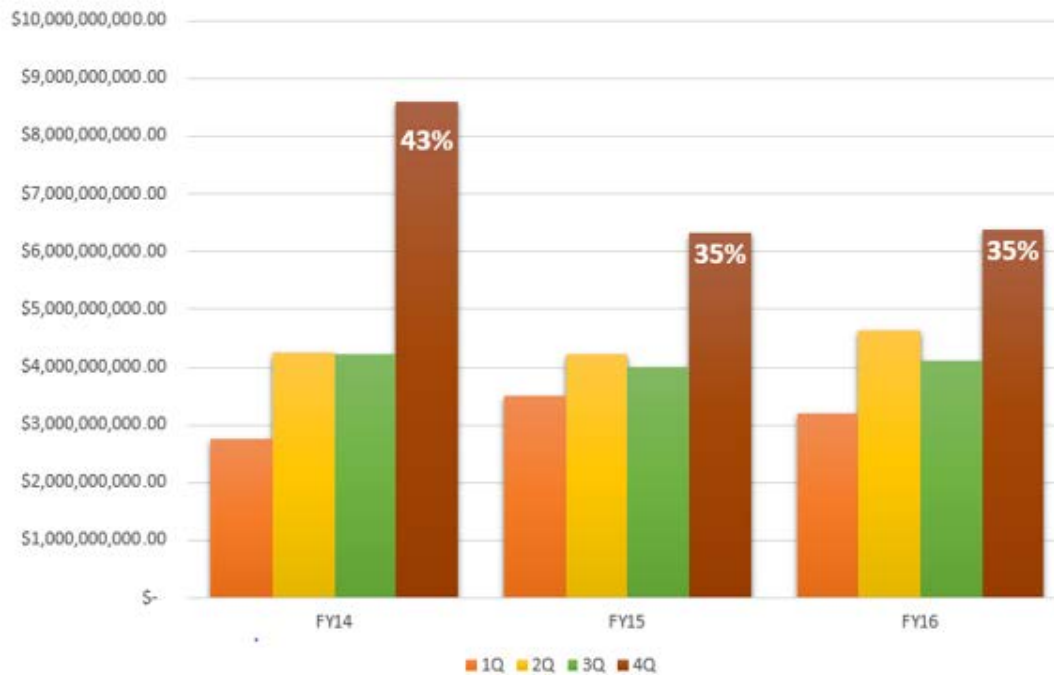


Figure 37. Comparison of Dollars Obligated by Quarter 2014–2016.  
Adapted from Department of the Navy (2015, 2017a, 2017b).

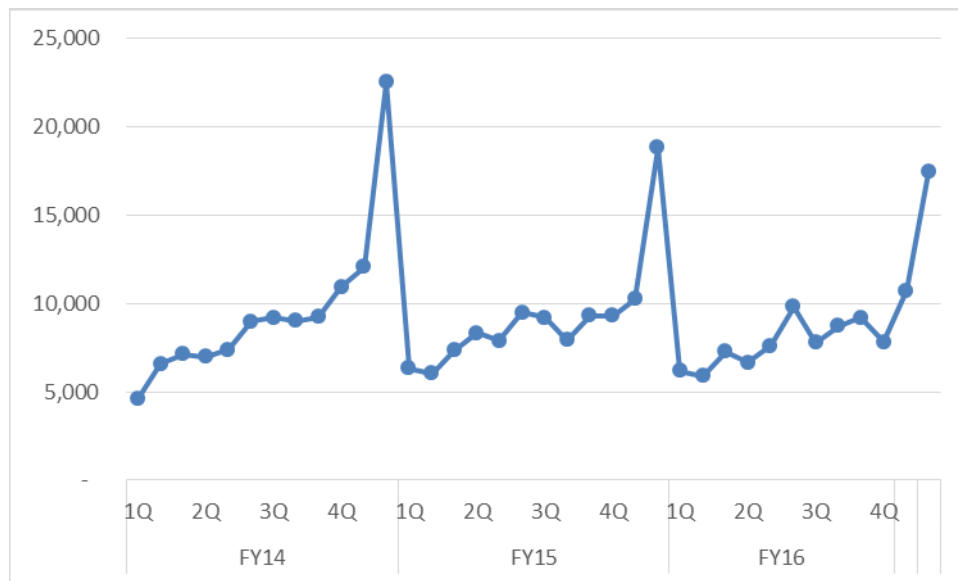


Figure 38. Trend Line of Number of Actions Performed 2014–2016. Adapted from Department of the Navy (2015, 2017a, 2017b).

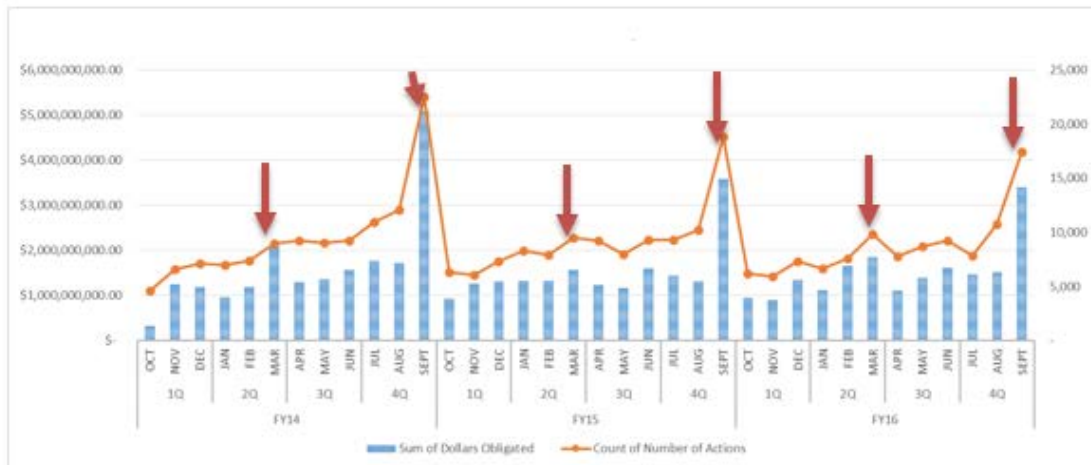


Figure 39. Time-Phased Comparison, Obligations, and Actions FY14–FY16.  
Adapted from Department of the Navy (2015, 2017a, 2017b).

Both March and September represent key periods of execution in the DOD, especially as it relates to O&M funding. March represents the middle of the execution year, or otherwise known as mid-year reviews. Mid-year represents a key milestone for budget and execution as it is the point when both the service and OSD review programmatic execution for looming bill payers. This is the time where the services, and OSD, analyze programmatic spending habits as it relates to OSD benchmarks against obligations and expenditures. If a program is shown as under-executing during this time, they are reported as a possible “use” for unfunded or under-funded mid-year bills and could be decremented if the service cannot provide a valid justification for delay in execution. September, as is well known, represents the end of a fiscal year where O&M funding will expire and be returned to Treasury if not obligated. This point in time is critical for O&M funding due to the un-availability for dollars to roll-over into the next fiscal year. Any dollars not spent, are returned to Treasury and “marked” against the program as under-executing resulting in potential future reductions of funding levels. This represents the use-or-lose phenomenon we have addressed throughout this discussion.

## **B. WHAT ARE DOLLARS SPENT ON AND BY WHOM?**

Based on our research the majority of O&M dollars are allocated to equipment-related and facility services (with equipment coded #NA as a close second). These trends do not appear to vary in Q4 with the exception of FY14, where facility related services surpassed equipment related services. According to the Govini article discussed in Chapter II, the drivers of procuring units within O&M have shifted from ship-related equipment to aircraft support (Govini, 2016). In terms of O&M funds, as the ships and aircraft age, more funds are necessary for general upkeep.

The data sets from FPDS on the six major commands makes sense. Across FY14–FY16, the six major commands with the highest contractual trends in both dollars and number of awards were NAVSEA, NAVAIR, NAVFAC, NAVSUP, SPAWAR, and USMC. All of the commands directly support the procurement of ships, aircraft, facilities, and supporting supplies and services to support the Navy and Joint warfighter. These six commands remained consistent in Q4 spending represented by the overall Navy. Our research did not further investigate spending habits at the operational level because the major spend patterns were consistent in Q4, and the major buyers across the entire fiscal year were largely consistent. The trends for whom are spending and what they are spending it on, appear to be largely unaffected by Q4 spending.

## **C. DECISION DRIVERS FOR SPENDING HABITS**

In Chapter I, we questioned what drives the Department to make these decisions as it relates to contractual spending in year-end awards with expiring dollars. Of particular interest were if we differ in types of contract awards as we move closer to the end of the fiscal year and how timing affected sole-source justifications for an expedited award versus competitive award. While we were unable to make attribution for many contract strategies based on the FPDS data, two clear trends emerged from the data: increased obligation in Q2 and Q4.

The end of Q2 and Q4 both represent key points of execution in the DOD, especially as it relates to O&M funding. The end of Q2 represents mid-year reporting. This is the time where the services, and OSD, analyze programmatic spending habits as it



relates to OSD benchmarks against obligations and expenditures. While not a conclusive rationale, it is logical to tie this pattern with the ‘use or lose’ habits. During the Q2 review, if a program is shown as under-executing during this time, they are reported as a possible “use” for mid-year unfunded and under-funded bills and could be decremented if the service cannot provide a valid justification for delay in execution. Q4 represents the end of a fiscal year where O&M funding expires and, with few exceptions, budget authority to use remaining funds dies. The link between these two major execution events is so strong, and indeed the increased spending by month in these two quarters is so significant that they appear to be clear drivers of the spending trend. Additional drivers in *how* money is obligated are examined below:

### **1. Uncertainty**

FPDS data has shown that over a third of O&M funding is pushed to the fourth quarter before obligating every fiscal year. In particular, FY14 data shows 43% of its annual contract spending was pushed to the fourth quarter. While FY15 and FY16 data appear to project better results, fourth quarter spending still ended at 35% of contract spending occurring in the fourth quarter. The Q4 spending percentages in our research are higher than the 2006–2009 trends depicted in Chapter II of this research. However, due to the different research methodologies, a direct explanation is not readily discernable. This significantly positions the department’s most critical account, Federal O&M dollars, into high risk territory for decrements and future loss of funds.

Studies suggest Departments purposely save funding early in the FY when future spending supply and demands are unknown and then burn through this supply funds at the end of the year. (Liebman & Mahoney, 2013, p. 1). Given the length of time required to start contract processes, it follows that the additional spending being allowed going into Q2 could not occur in the normal trend lines. A major theme that is tied to each of these potential drivers is uncertainty, and may shed light on the spending habits shown overall for the DON.

## **2. Competition**

Contrary to our initial assumptions, the strategy to use competition appears to have the greatest positive impact in Q4 obligations. Trends appear to demonstrate use of competition at a statistically significant increased percentage for Q4. This includes competition ranging from the full and open methods used in stand-alone contracting, competitions for simplified acquisitions, and fair opportunity under IDC contracts.

## **3. IDC versus Stand-Alone Contracts**

Figure 40 and figure 41 summarize the obligations and count of actions for IDC versus stand-alone contracts. The number of contract actions issued against IDCs greatly exceeds contract actions issued against stand-alone definitive contracts for the entire year, and are particularly higher in Q4. Conceptually, this may be unexpected, particularly when considering that stand-alone contracts include purchase orders made under the Simplified Acquisition Threshold (SAT). However, this is perhaps logical in terms of obligation amount. Tasks or delivery orders issued against an indefinite base contracts are intended to be easier to perform, both in terms of documentation and timeline restrictions. This is because most of the negotiation of terms and conditions, and requirements for timelines and public notice, have been completed on the base contract.

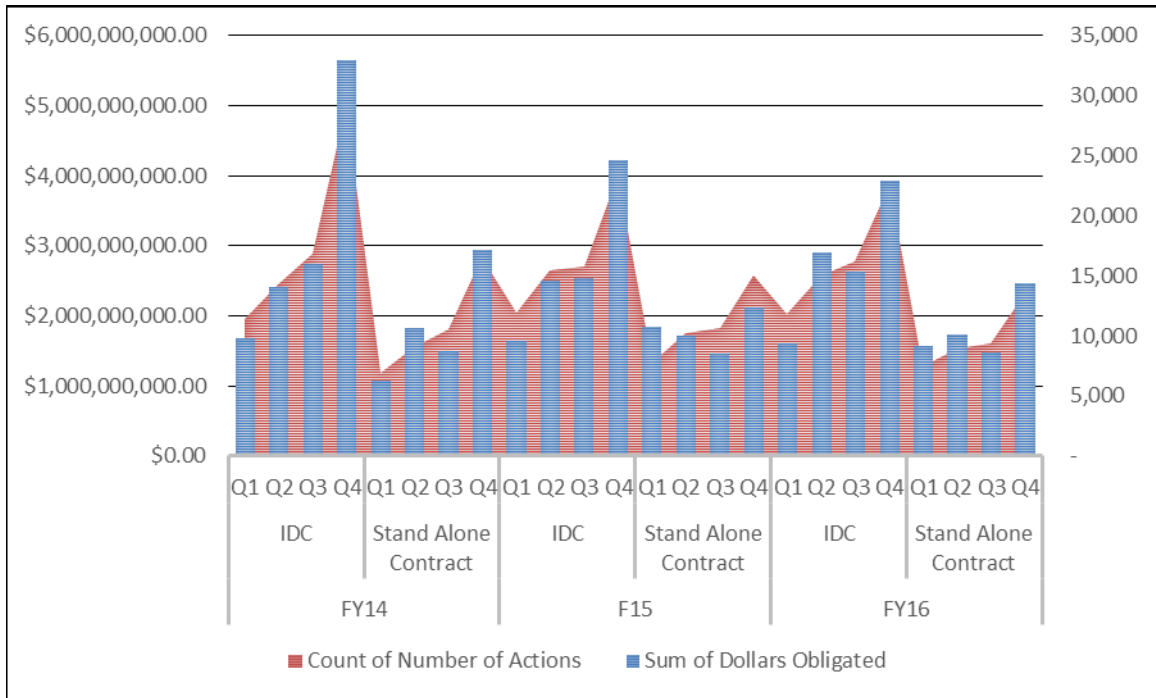


Figure 40. IDC versus Stand-Alone Actions FY14–FY16. Adapted from Department of the Navy (2015, 2017a, 2017b).

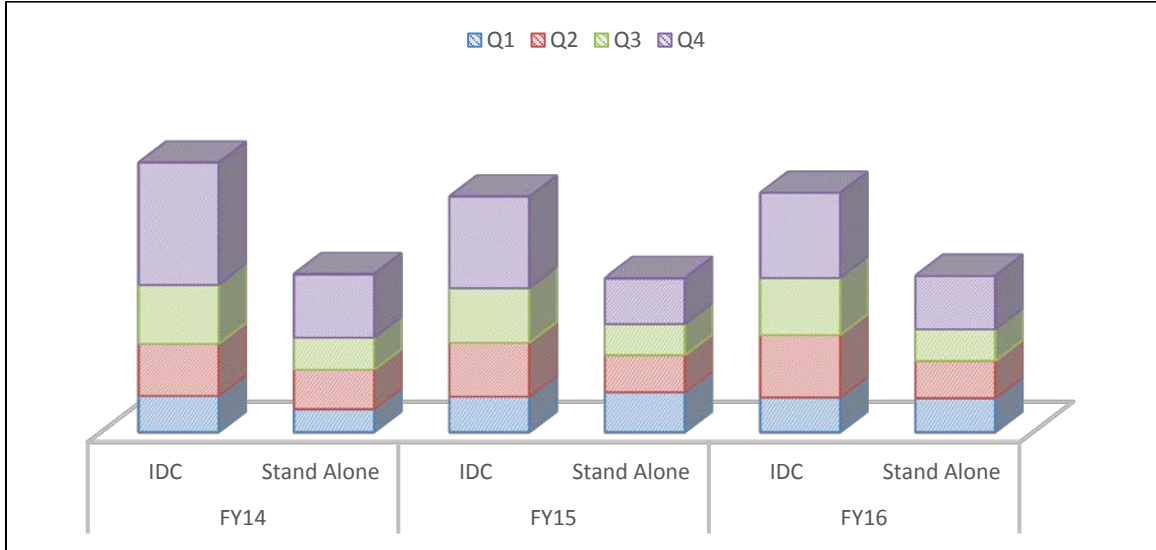


Figure 41. Total Obligations via IDC versus Stand-Alone Actions FY14–FY16. Adapted from Department of the Navy (2015, 2017a, 2017b).

The total IDC obligations are 70% higher than stand-alone contracts in FY14, and 53% higher than stand-alone contracts in both FY15 and FY16. The actual number of actions is similarly biased towards IDC actions. A potential motive for this discrepancy could be the shortened length of time needed to issue an order against an IDC. These time frames are shortened both by regulatory exemptions and pre-negotiated terms and conditions. For example, orders against indefinite contracts have an exemption from synopsis requirements (FAR 5.202-5(a)(6)), and often pricing for supplies are pre-negotiated (GSA, n.d, p. 9). The effect it has on competition is equally as important. Full and open competition may yield any number of responses in a stand-alone contract environment, which must be fully evaluated. In the case of many IDCs, they are subject to competition with the base award and use Multiple Award Contract (MAC) schedules. This effectively signifies that solicitations against MACs result in a smaller number of more qualified proposals to evaluate and award.

#### **4. Spending per Action**

A particularly notable trend in spend patterns is the number of actions increase in Q4 without an equivalent increase in the actual obligation amounts. In short, the Q4 timeframe includes a larger number of smaller dollar actions than those in earlier quarters.

Figure 42 suggests the average dollar per action is largely stable across IDCs with average cost per action incrementally increasing each quarter. The absolute difference for all three years is between a low of \$135k per action in Q1 FY16 to a high of \$194k in Q4 FY14. Stand-alone contract amounts show greater variation in average cost per action between quarters, following no discernable trend each year. The absolute difference for all three years is between a low of \$136k in Q3 FY15 to a high of \$238k in Q1 FY15. The trend shows stand-alone contracts in the first quarter having higher average obligation amounts in FY15 and FY16 than in remaining quarters.

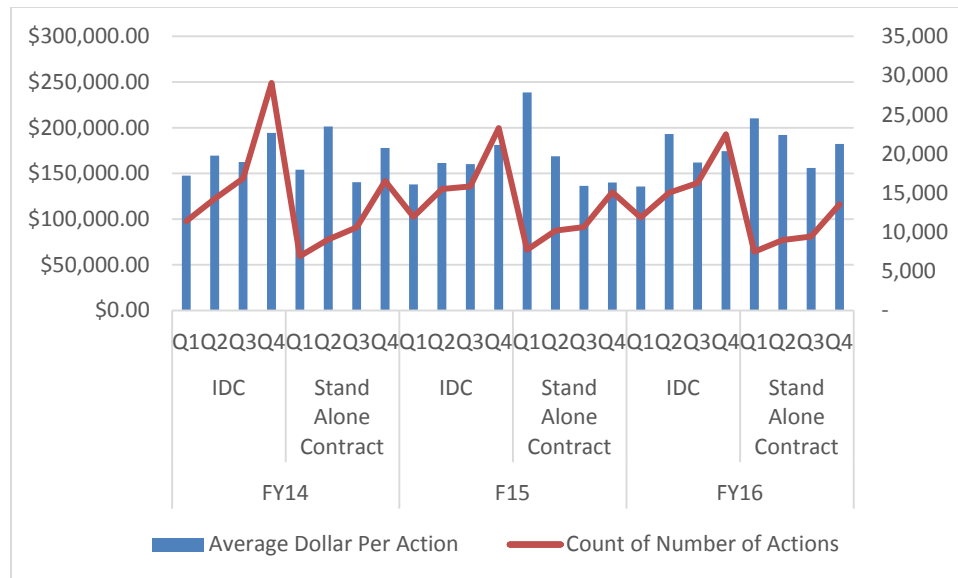


Figure 42. Average Dollar per Action via IDC versus Stand-Alone FY14–FY16.  
Adapted from Department of the Navy (2015, 2017a, 2017b).

The number of actions increase incrementally in each quarter with a decrease in actions occurring in Q3 of each year before the largest spike in Q4. The percent-changed for average dollar per action does not align with the change in number of actions. IDCs are somewhat more consistent and by the end of the year, are back up to larger average dollars per action than in previous quarters. The differences in average cost per action for stand-alone contracts vary. Despite the overall number of stand-alone actions increasing in Q4 of each year, Q4 stand-alone contract average dollars per action are never as high as its Q1 and Q2 counterparts. This means in the beginning of the FY, we are seeing fewer, larger dollar value contracts get awarded while Q4 sees a large number of lower dollar value, stand-alone contracts. For IDCs, the Q4 has a high number of high dollar value orders being issued.

Departments are issuing significantly more contract actions and expending the largest amount of funds in Q4. The trends can be linked to any number of reasons, but primary causes include an effort keep the funds and protect future funding levels. This distribution of work could have huge implications with regard to overtime and workforce efficiency.

THIS PAGE INTENTIONALLY LEFT BLANK

## V. CONCLUSIONS AND RECOMMENDATIONS

### A. CONCLUSIONS

*What drives the Department to make these decisions as they relate to contractual spending in the rush of year-end awards with expiring dollars?* Cost, Schedule, and Performance; the three pillars of program management and the defining factors for a program's success directly tie to what we call year-end rush in spending habits across the DOD. Programs are measured by budget execution. Until this approach changes, the rush of year-end spending cannot change. As we have discovered, the Department of the Navy and United States Marine Corps, spend over 1/3 of their contractual budget in the fourth quarter every year. This represents upwards of \$6–\$8 Billion unobligated dollars until the last second for obligation.

*What drives the Department to make these decisions as they relate to contractual spending in the rush of year-end awards with expiring dollars?* This research has identified a number of driving factors to these spending habits to include: political actions, by extending continuing budget resolutions; thresholds on fourth quarter spending; departmental policies that drive standardized OSD benchmarks and mid-year execution reports, and ultimately, the fear of the unknown. Studies suggest departments purposely save funding early in the fiscal year due to uncertainty, and then use this reserve of funds in Q4 when final budgets and demands are known and can be allocated accordingly. (Liebman & Mahoney, 2013, p. 1).

The Department's discretionary spending level has been in a constant decline over the past few years. With sequestration and budget caps, it does not appear the financial environment will see any improvements in the near future. If anything, it appears the consistent uncertainty is providing a detrimental impact to even spending habits across the year. The Department's uncertainty in changing environments, demands, and resources stresses a program's spending limits and causes programs to go into a shelter mode until a budget resolution is passed each year. By the time a budget is passed, a program is traditionally left with six months of spending authority and appropriation.

Contract timelines often taken several months, which drives a large number of year-end contractual awards.

## **B. RECOMMENDATIONS**

- (1) What are some ways the government can control spending habits and ensure more efficient and effective processing of dollars spent?

Drivers of year-end spending are heavily political and hard to change, as is everything in bureaucracy. The first milestone to pass is getting a mutual understanding on the drivers of this habitual trend across the services and a willingness to change. Independent services have tried to tackle this problem, but service level change cannot impact the bigger concern with Congressional and political parties and the perception of use-it-or-lose-it.

- (2) What drives the Department to make these decisions as it relates to contractual spending in the rush of year-end awards with expiring dollars?

When examining the drivers assessed within this research, key points appear to be the budget uncertainty, the late release of funds for late appropriations bills, future budgets based on past expenditures, and the fact that O&M funds have a short life and a hard expiration date.

- (3) What are the trends and characteristics of DON spending throughout a fiscal year and how does it compare to spending in the Q4?

Throughout this research we have observed that spending drastically increases, both in dollars and number of actions in Q4. Additionally, we have observed that this increase in actions is not met with a lower average dollar per action than in other quarters and that more actions are procured via IDCs versus stand-alone contracts. However; we have seen that *what* these dollars are spent on is not significantly different from what is purchased throughout the year and that use of full and open competition appears to be at its highest in Q4. What this means for the Navy from a practical standpoint is up to policy analysis and key decision makers, but from our research, we question the end effects of this kind of year end spending, both from a manpower and staffing arrangement, and from the concept of workflow management.



The Army put out a directive in 2016 called Every Dollar Counts. The focus of this directive was to shift patterns in justifications and communication to focus on metrics and programmatic impacts rather than obligation goals. The focus on spending, i.e., obligation goals, is one dimensional, you're either meeting goals=good, or not=bad. Due to the recent time frame, no data are available on results of this shift on Army resources. The Army's intent is to shift focus and talk more progression; requesting PMs tell the world what they have done to support the warfighter instead of how much money they have spent. The Army's goal is to help the Congressional committees understand the complexities and benefits of departmental spending in hopes the focus of benchmarked goals are not the sole metric for resource decrements. We recommend a similar drive in the Navy to change the culture of "use or lose," but caveat that to be truly effective the actual budgeting methods must be visibly and clearly shown to be more mission and outcome based instead of expenditure based.

O&M is the appropriation most susceptible to year-end spending. When you consider CR constraints, long lead time for contract and legal reviews, twelve months becomes near impossible for good quality awards outside of the fourth quarter. The use of orders against IDCs is a practical way most organizations seem to get around this, but the availability stipulation hinders the department's innovation and ability to truly derive the most efficient and effective contract awards for its money. Often times, we must live with what we have due to timing constraints which may be a waste of diminishing tax payer's dollars. One way around this is Congress allowing for a roll-over provision, protecting O&M funding but allowing additional time for efficient processing of critical contract awards. This is unlikely for the entire appropriation, but there is precedent for this happening for certain categories.

The DOJ demonstrated the benefits of the roll-over provision theory. The 9.5% reduction in IT obligations in Q4 shows that, in practice, a special authority to roll over some expiring funds can cause a statistically significant reduction of spending rates (Liebman & Mahoney, 2013, p. 29). Use of a similar provision on Navy specific or other special related projects could allow time for the department to appropriately contract and negotiate critical requirements rather than rush to spend funding on un-needed, trivial

supplies at year-end in a fear of losing funds. We recommend exploration of similar pilot programs in the Navy.

### **C. AVENUES FOR FUTURE RESEARCH**

The areas of this research can inform, but not directly attribute the causes for all spending habits. Clear trends are a starting point which can be used as various avenues of research to promote better results for government spending. Several key areas include more qualitative studies on the results of the use or lose mentality, and the planning and spending affects caused by uncertainty. For future research additional consideration may be given to how many negotiations or discussions are closed in Q4 based on the funds status and potential for programs to die or be delayed due to lack of funds. Getting the best outcome in a negotiation may not be possible with the existing regulatory structure and appropriations framework for obligations. In addition, future research on the number of different kinds of actions, to include assessment of purchase orders, award of large IDC base contracts without dollar values, and other unique contracting actions may yield additional information to describe how spending trends are affected by or affect procurement strategies. Finally, an examination of actual Q4 work processes, their outcomes, and how they differ from the previous three quarters may shed light on how effective our overall acquisition processes, our workforce planning, and work structure are.

## LIST OF REFERENCES

- AcqNotes. (n.d.). PPBE process – Appropriation categories. Retrieved 3 February 2017, from <http://www.acqnotes.com/acqnote/acquisitions/appropriation-categories>
- Acqupedia. (n.d.). Planning, Programming, Budgeting & Execution process (PPBE). Retrieved 20 January 2017, from <https://dap.dau.mil/acqupedia/Pages/ArticleDetails.aspx?aid=10fdf6c0-30ca-43ee-81a8-717156088826>
- The Anti-Deficiency Act, 31 U.S.C. §§ 1341-42, 1511-19 (1976).
- Blakeley, K. (2016). *Analysis of the FY 2017 defense budget and trends in defense spending*. Washington, DC: Center for Strategic and Budgetary Assessments. Retrieved from [http://csbaonline.org/uploads/documents/CSBA6196-2017-Budget-Analysis\\_PRINT.pdf](http://csbaonline.org/uploads/documents/CSBA6196-2017-Budget-Analysis_PRINT.pdf)
- Boyd, A. (2015, 21 February). Fed contractors: Prepare for September spending spree. *Federal Times*. Retrieved from <http://www.federaltimes.com/story/government/acquisition/2015/07/21/Q4-spending-spree/30471499/>
- CBO. (5 January 2017). *Trends in spending by the Department of Defense for operation and maintenance*. Washington, DC: Author.
- Congressional Budget & Impoundment Control Act of 1974, Pub. L. No. 94-344 88 Stat. 297, Sec 300 (1974).
- Contract and Fiscal Law Department. (2015). *2015 fiscal law deskbook*. Charlottesville, VA: Judge Advocate General's Legal Center and School.
- Defense Acquisition Guidebook. (2013, 15 May). Chapter 1.2: Planning, programing, budgeting and execution process. Retrieved 8 November 2016 from <https://acc.dau.mil/CommunityBrowser.aspx?id=488289&lang=en-US>
- Defense Acquisition University. (2016). DAU funds management platinum card. Retrieved from <https://acc.dau.mil/CommunityBrowser.aspx?id=203780>
- Department of the Navy. (2015, 20 October). 2015\_FULL\_DATA\_SET\_EOY\_BAR\_GRAPH\_Values. Federal Procurement Data System Contract Action Data. Provided by Department of the Navy.
- Department of the Navy. (2017a, 28 February). 2014\_\_All\_022817. Federal Procurement Data System (FPDS) Contract Action Data. Provided by Department of the Navy.
- Department of the Navy. (2017b, 28 February). 2016\_\_All\_022817. Federal Procurement Data System Contract Action Data. Provided by Department of the Navy.

- Fichtner, J., & Greene, R. (2014, September). Curbing the surge in Federal Government spending: Reforming the “use it or lose it” rules [Scholarly project]. Retrieved 08 January 2017, from <https://www.mercatus.org/system/files/Fichtner-Year-End-Spending.pdf>
- Government Accountability Office. (2010). *Defense budget: Fourth quarter obligation rates and contract obligations for fiscal years 2006–09* (GAO-10-527R). Retrieved from <https://www.gao.gov/assets/100/96642.pdf>
- Government Accountability Office. (n.d.). About the Anti-Deficiency Act. Retrieved 3 February 2017, from <http://www.gao.gov/legal/anti-deficiency-act/about>
- Govini. (2016). The 2016 Federal Scorecard Department of the Navy. Retrieved 1 May 2017, from [www.govini.com%2fscorecard%2f&p=DevEx,5063.1](http://www.govini.com%2fscorecard%2f&p=DevEx,5063.1)
- Govini. (n.d.). *Positioning for 2017: Competitive outlook in defense & civilian agencies*. Retrieved 7 April 2017, from <https://washingtontechnology.com/blogs/editors-notebook/2016/09/~media/73447EA1E5344085B80764FBEEAA5F03.ashx>
- Hale, R. (2016). Why DOD’s year-end spending needs to change. Retrieved from <http://breakingdefense.com/2016/09/why-DODs-year-end-spending-needs-to-change/>
- Higbee, J., Tremaine, R., Seligman, D., & Arwood, S. (2013). *Obligations & expenditures: An investigation into the factors that affect OSD goals*. Retrieved from [https://dap.dau.mil/aphome/Documents/OSD%20Obs%20%20Exps%20Study\\_2013.pdf](https://dap.dau.mil/aphome/Documents/OSD%20Obs%20%20Exps%20Study_2013.pdf)
- “Hurry-up” spending: Hearing before the Subcommittee on Oversight of Government Management, Senate, 96th Cong. 1 (1980). Retrieved from <https://babel.hathitrust.org/cgi/pt?id=uc1.b5140870;view=1up;seq=391>
- Inside Gov. (n.d). 2014 United States budget vs 2015 United States budget vs 2016 estimate United States Budget. Retrieved 08 January 2017, from <http://federal-budget.insidegov.com/1/119/2016>
- Institute to Reduce Spending. (2014). Continuing resolutions and the budgeting process. Retrieved from <http://institute.reducespending.org/spending-straight-talk/continuing-resolutions/>
- Krott, J. (2011). Teaching note: Obligation and expenditure plans. Retrieved from [https://acc.dau.mil/adl/en-US/44283/file/61350/C11\\_Obligation\\_and\\_Expenditure\\_Plans\\_TN\\_Feb\\_11\\_v\\_3.pdf](https://acc.dau.mil/adl/en-US/44283/file/61350/C11_Obligation_and_Expenditure_Plans_TN_Feb_11_v_3.pdf)
- Liebman, J. & Mahoney, N. (2013). *Do expiring budgets lead to wasteful year-end spending? Evidence from federal procurement*. Retrieved from <http://www.nber.org/papers/w19481>

- Murphy, P. (2016, 15 April). *Army directive 2016-16 (Changing management behavior: Ever dollar counts)* [Memorandum]. Washington DC: Department of the Army.
- Murphy, R. (1996). *Matter of funding and maintenance contract extending beyond fiscal year file: B-259274*. Washington, DC: Government Accountability Office.
- Sager, M. (2013, 23 May). *Budget issues: Effects of budget uncertainty from continuing resolutions on agency operations: Statement for the Record to the Committee on Homeland Security and Governmental Affairs, U.S. Senate* (United States Government Accountability Office report GAO-13-464T). Retrieved from <http://www.gao.gov/assets/660/652999.pdf>
- Secretary of the Navy. (2015). *Highlights of the Department of the Navy FY 2016 budget*. Retrieved from [http://www.secnav.navy.mil/fmc/fmb/Documents/16pres/Highlights\\_book.pdf](http://www.secnav.navy.mil/fmc/fmb/Documents/16pres/Highlights_book.pdf)
- Thomas, J., Spinner, V, & Taberner, J. (2007). *Continuing resolutions: CRs in a nutshell*. Washington, DC: U.S. Department of the Treasury. Retrieved from [https://www.fiscal.treasury.gov/fsstraining/events/ContinuingResolutions\\_CRsinaNutshell.pdf](https://www.fiscal.treasury.gov/fsstraining/events/ContinuingResolutions_CRsinaNutshell.pdf)
- Trunkey, D. (2016, 1 July). Trends in operation and maintenance spending by the Department of Defense. Presented at the 91<sup>st</sup> Annual Conference of the Western Economic Association International. Portland, Oregon.
- Under Secretary of Defense (Comptroller). (2000). Chapter 1: General Information. In *Department of Defense Financial Management Regulation DOD 7000.14-R*. Volume 2A. Washington, DC: Author.
- Under Secretary of Defense (Comptroller). (2008). Budget formulation and presentation. In *Department of Defense Financial Management Regulation DOD 7000.14-R*. Volume 2A. Washington, DC: Author.
- Under Secretary of Defense (Comptroller). (2011). Chapter 4: Reporting policy. In *Department of Defense Financial Management Regulation DOD 7000.14-R*. Volume 6A. Washington, DC: Author.
- Under Secretary of Defense (Comptroller). (2014). Chapter 1: Reimbursable operations policy. In *Department of Defense Financial Management Regulation DOD 7000.14-R*. Volume 11A. Washington, DC: Author.
- Under Secretary of Defense (Comptroller). (2015). Chapter 2: Apportionment/reapportionment and funds distribution. *Department of Defense Financial Management Regulation DOD 7000.14-R*. Volume 3. Washington, DC: Author.

Under Secretary of Defense (Comptroller). (2016). Summary of reprogramming requirements effective for FY 2016 appropriation. Retrieved from [http://comptroller.defense.gov/Portals/45/Documents/execution/reprogramming/Rereprogramming\\_Overview.pdf](http://comptroller.defense.gov/Portals/45/Documents/execution/reprogramming/Rereprogramming_Overview.pdf)

United States Senate. (n.d.). Glossary. Retrieved 7 April 2017, from [https://www.senate.gov/reference/glossary\\_term/continuing\\_resolution.htm](https://www.senate.gov/reference/glossary_term/continuing_resolution.htm)

U.S. General Services Administration. (n.d.). GSA schedules vs. open market: Student guide. Retrieved 7 April 2017, from <https://www.gsa.gov/portal/getMediaData?mediaId=152783>

## **INITIAL DISTRIBUTION LIST**

1. Defense Technical Information Center  
Ft. Belvoir, Virginia
2. Dudley Knox Library  
Naval Postgraduate School  
Monterey, California