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Measuring Congressional Impact on Defense Acquisition Funding

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Abstract

This analysis seeks to assess the role of Congress in the resourcing of defense acquisition programs. Via the appropriations process, Congress exercises its oversight authority on the executive branch's defense policy and can choose to match, modify, or eliminate the Department of Defense's (DoD) requested funding levels for acquisition programs primarily funded by procurement and research, development, test, and evaluation (RDT&E) accounts. Congress' decisions in this process can have a significant impact on the executive branch's defense plans by making adjustments to acquisition projects' program of record. This in turn can force DoD program management teams to alter schedules and contracting actions and can have second-order effects on private sector partners in the acquisition process.

To measure Congress' impact on defense acquisition funding, this study compares the actual funding level for procurement and RDT&E accounts with the original level proposed in the administration's budget request and identifies patterns in which accounts are regularly adjusted by Congress. It assesses procurement and RDT&E accounts between FY 2001 and FY 2020 and conducts data cuts of acquisition funding at the account, category, military department, and budget activity levels. This analysis ultimately aims to inform defense planners, acquisition officials and program managers, and industry partners of trends in congressional appropriations for defense so they can better anticipate Congress' impact on defense acquisition funding.

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1 | Introduction

The Department of Defense (DoD) outlines the priorities of the administration in the budget request submitted to Congress for the upcoming fiscal year. Along with its request for funding for the next fiscal year, the Department submits thousands of pages of budget information justifying the funds required for its programs and outlining its plans in detail. For acquisition programs (primarily funded through the procurement and research, development, test, and evaluation (RDT&E) accounts), DoD also provides lawmakers with detailed information at the line item and program element level on program schedules and requirements as well as projected future funding requirements in the Future Years Defense Program (FYDP).

While the executive branch articulates its own strategic priorities, plans its defense acquisition agenda, and distributes contracts to private sector partners, Congress retains the power of the purse and ultimately has the final say in deciding which acquisition programs receive funding and how much. Led by each chamber's respective appropriations subcommittee on defense, the legislative branch can choose to match, modify, or eliminate DoD's requested funding levels for procurement and RDT&E programs as well as alter the quantity of systems or platforms procured. Congressional adjustments to the budget can also be made after funding is appropriated via rescissions that cancel some or all of the budget authority prior to its obligation (Saturno et al., 2016, p. 20). Likewise, DoD can reprogram funding to move it among accounts as needed within the constraints set by appropriators (Saturno et al., 2016, p. 12).

Congressional decisions on funding for acquisition programs in the appropriations process can have a significant impact on an administration's defense plans. Adjustments to the program of record for acquisition projects can force the program management teams in DoD to alter a program's schedule and contracting actions. In addition to affecting the performance of acquisition programs, these adjustments can have secondary effects on private sector partners, particularly the prime contractors tasked with developing and building systems and their suppliers. At the macro level, disruptions to acquisition plans in the appropriations process can also affect an administration's ability to operationalize its defense strategy. Ultimately, the power of Congress to appropriate money gives the legislative branch an important role in overseeing how defense dollars are spent and the execution of defense strategy.

This analysis seeks to assess trends in congressional action on funding for defense acquisition programs relative to the requested level. It will compare the actual funding level for procurement and RDT&E accounts with the original level proposed in the administration's budget request and identify patterns in which accounts are regularly adjusted by Congress. Ultimately, this analysis aims to inform defense planners, acquisition officials and program managers, and industry partners of trends in

congressional appropriations for defense so they can better plan for how the congressional budget process is likely to affect the defense budget request on a more granular level using historical data.

Methodology

This study assesses trends in congressional action on defense acquisition funding from FY 2001 through FY 2020. The time frame was selected in part due to the availability of data for procurement and RDT&E accounts in a machine-readable format. The analysis of roughly the first half of that time frame captures congressional decisionmaking on funding for acquisition accounts during the height of operations for the wars in Afghanistan and Iraq, in addition to acquisition programs unrelated to the wars. Congress regularly provided funding for operations and equipment in Afghanistan and Iraq via supplemental appropriations—separate from regular DoD appropriations—in response to requests from the executive branch. Between FY 2001 and FY 2010, Congress appropriated supplemental funding to DoD each year, which was known as Global War on Terror (GWOT) funding. Beginning in FY 2010, war-related funding—by then known as Overseas Contingency Operations (OCO) funding—was requested and appropriated as regular funding rather than emergency supplemental.

Analysis of approximately the second half of the time frame in question examines the impact of the Budget Control Act (BCA) of 2011 on funding for procurement and RDT&E accounts. In an effort to reduce the federal deficit, the BCA imposed caps on discretionary funding levels for defense and non-defense programs between FY 2012 and FY 2021. These budget caps were then increased by Congress in a series of budget agreements over that time frame (Harrison and Daniels, 2020, p. 6). However, the inability of lawmakers to identify an alternative to the deficit reduction plan outlined in the BCA following its passage in 2011 led to sequestration, a budgetary mechanism that reduces discretionary spending in excess of the budget caps. A sequester was triggered in March 2013 that led to cuts of 6.7 percent and 8.1 percent to procurement and RDT&E accounts, respectively (Daniels, 2019, p. 3).

In its approach to measuring the role of Congress in acquisition funding, this analysis compares the *requested* level of funding from the presidential budget request with the *actual* level of funding for procurement and RDT&E accounts. Budget data was compiled from the procurement programs (P-1s) and RDT&E programs (R-1s) justification books published by the Office of the Comptroller with each year's budget request.

The *actual* level of funding for acquisition programs is calculated approximately two years after it is originally requested (for example, actual funding levels for FY 2019 are published with the FY 2021 request). While the *enacted* level of funding passed by lawmakers would be a more direct comparison to illustrate congressional action on the budget request (since lawmakers can make adjustments to funding after it is appropriated), this data is not consistently captured in budget justification documents due to delays in enacting appropriations. It is also not captured in legislative text in a machine-readable format at the line item and program element level. The *actual* funding level will not

typically differ dramatically from the *enacted* level of funding with the notable exception of FY 2013 when sequestration occurred. For FY 2020, the *enacted* funding level is used instead of the *actual* funding level.

However, the evolution of the presentation of the P-1 and R-1 justification books and the lack of a standard template over the 20-year time frame still pose a challenge to conducting a comprehensive data analysis of actual and requested funding levels. In particular, supplemental budget requests and appropriations, which as previously mentioned funded in part operations in Afghanistan and Iraq, were not presented in a machine-readable format until FY 2008. Consequently, this analysis compares the *original* requested value for acquisition accounts with the actual funding through FY 2009. The actual funding level for FY 2001 through FY 2009 includes supplemental appropriations for GWOT and OCO funding. For this reason, changes between the request and the actual funding will appear larger in this time frame. This analysis will identify the direct impact of supplemental acquisition appropriations related to operations where appropriate.

Given OCO's inclusion as part of the regular budget request from FY 2010 onwards, it is included within both the requested and actual funding levels for acquisition accounts between FY 2010 and FY 2020. Occasionally, administrations may also submit amendments to its original budget request that are typically more minor than supplemental requests. The requested level data from the FY 2020 request onwards analyzed in this study incorporates adjustments submitted by the administration after the fact. One exception is FY 2017, in which the Trump administration submitted an updated budget request after taking office which amended the request submitted by the Obama administration. The data for that year's request in this study represents the Obama administration's request and any changes requested by that administration, but it does not include changes requested by the Trump administration that occurred during the middle of FY 2017.

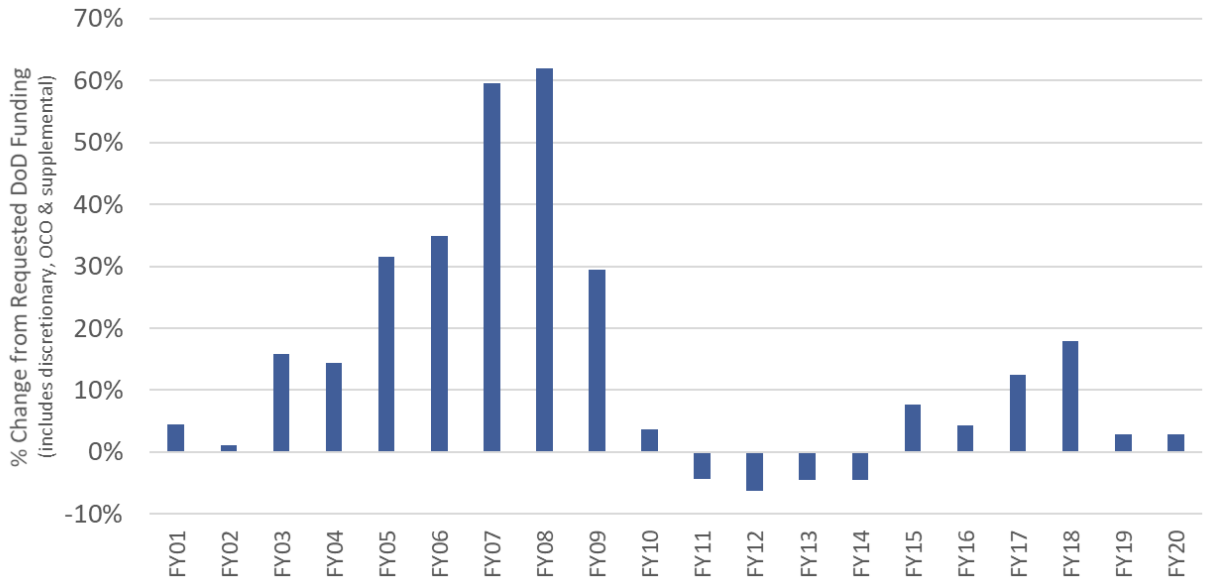
Congressional adjustments to the requested level of funding for procurement and RDT&E accounts are measured by calculating the percent change between the actual funding level and the requested level for each given fiscal year. Analysis is conducted at the topline procurement and RDT&E level, the military department level, and account level with further analysis at more granular levels to explain trends in the data.

2 | Congressional Action on Procurement Funding

Topline Procurement Funding

If assessed at the topline level, congressional funding for procurement accounts relative to the presidential request has fluctuated considerably over the period of analysis. Figure 1 presents the percent change from the actual level of procurement to the requested level from FY 2001 to FY 2020. Actual funding levels vastly exceeded the requested level of funding for procurement accounts during the height of operations in Afghanistan and Iraq because the methodology used for this comparison does not include war-related funding that was requested after the normal budget request. On average, topline procurement funding was 28.1 percent higher than the requested level due to supplemental requests and appropriations. The actual level of funding in FY 2007 and FY 2008 was nearly 60 percent higher than requested.

Figure 1: Actual Total Procurement Funding vs. Requested Level, FY 2001–FY 2020



While funding was 2.9 percent higher than the requested topline on average from FY 2010 through FY 2020, actual funding for procurement accounts was below the requested amount for four years between FY 2011 and FY 2014. This was due in no small part to concerns over the federal deficit and the impact of the BCA in constraining the defense budget. The Obama administration repeatedly requested funding for defense programs above the level permitted by the BCA budget caps, and congressional adjustments to the caps did not always match the level of increase requested by the

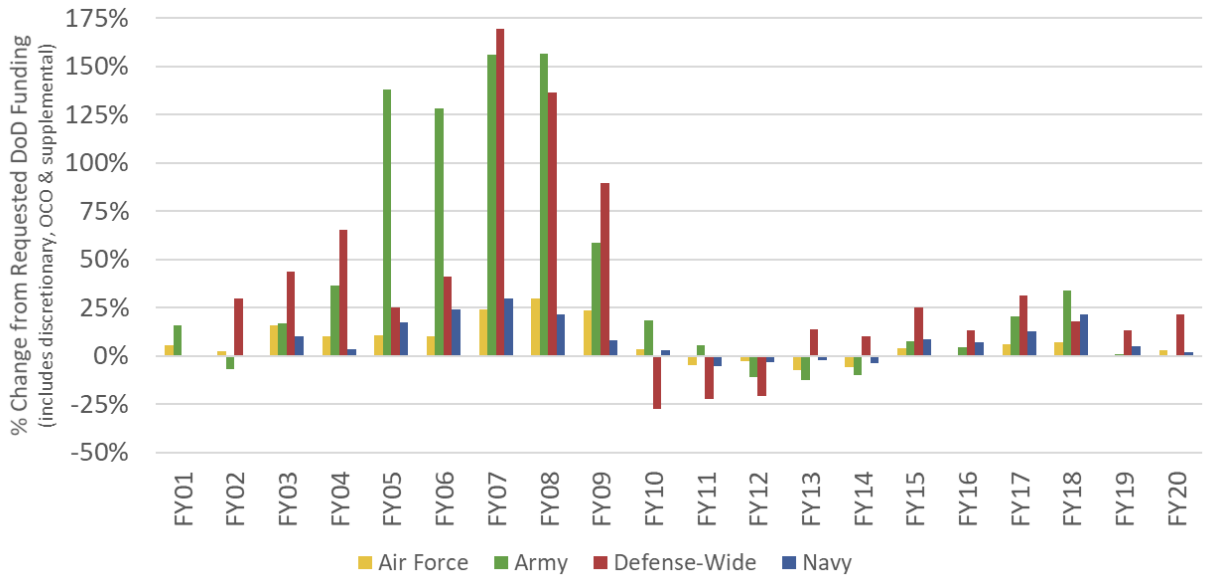
Obama administration. Sequestration also contributed to lower actual levels of funding for procurement relative to the request in FY 2013.

Actual procurement funding surpassed the requested level by almost 18 percent in FY 2018 as a result of the Bipartisan Budget Act of 2018 (BBA 2018). The two-year budget deal raised the spending caps for defense higher than the Trump administration had requested and was significantly larger than previous two-year agreements that increased the caps from FY 2014 to FY 2015 and FY 2016 to FY 2017 (Daniels and Harrison, 2020).

Procurement Funding by Military Department

When assessed by military departments and defense-wide, or "Fourth Estate," accounts, the procurement funding data yields similar trends to the topline analysis, as shown in Figure 2. Between FY 2001 and FY 2009, Army and defense-wide procurement accounts received by far the greatest funding above the requested level at 78 percent and 67 percent higher, respectively, due to the preponderance of war-related procurements found in these accounts. The Air Force received on average 15 percent higher than the request amount while the Navy received 13 percent more over the same time frame.

Figure 2: Actual Procurement Funding vs. Requested Level by Military Department



However, defense-wide procurement funding shows significant fluctuations and differences relative to the request. This is largely due to the small amount of procurement funds requested for defense-wide accounts (such as Special Operations Command and Missile Defense Agency procurements) compared to the military departments; adjustments above or below that requested level will appear

more drastic when represented as a percentage change because of the smaller amounts of funding involved. At times, DoD may also request funds for defense-wide accounts, which Congress then cuts from defense-wide and appropriates directly into other service accounts.

Compared across the FY 2010 to FY 2020 time frame, actual procurement funding for the defense-wide accounts was an average of 6.9 percent higher than the request, compared to 2.9 percent for overall procurement funding. Of the military departments, the Army received the greatest increase above the request at 5.3 percent on average, in comparison to a 4.2 percent average increase for the Navy and 0.3 percent for the Air Force. While Army accounts received significantly more funding than requested in FY 2017 and FY 2018, Congress was less generous in FY 2019 and appropriated slightly less funding than requested in FY 2020.

Procurement Funding by Account

A comparison of the requested and actual levels of funding at the account level provides a better idea of the factors driving trends at the military department level. Figure 3 and Figure 4 on the following page compare the requested and actual funding levels for Army procurement accounts, the former in terms of percent change and the latter in terms of dollars. As Figure 3 shows, the Army's "other procurement" and weapons and tracked combat vehicles (W&TCV) accounts received significant increases above the requested amount relative to other accounts between FY 2005 and FY 2009. Other procurement peaked at 253 percent above the request in FY 2006 while W&TCV received 262 percent more funding in FY 2007.

As Figure 4 illustrates, however, the increase in terms of actual dollars was much more significant for Army other procurement accounts, which peaked at nearly $28 billion over the requested amount in FY 2008 compared to a $6.4 billion increase for W&TCV. This was driven significantly by almost $13 billion in funding for the Mine Resistant Ambush Protection (MRAP) vehicle and over $6 billion more than requested for the Family of Heavy Tactical Vehicles (FHTV), Family of Medium Tactical Vehicles (FMTV), and High Mobility, Multi-Wheeled Vehicles (HMMWV) (which the MRAP was designed to replace) combined (Feickert, 2011, Summary), which fall under Army other procurement.

As operations in Afghanistan and Iraq slowed, Army procurement accounts received smaller increases above the requested level and funding fell below the requested level for some accounts with the onset of the BCA caps. Yet between FY 2010 and FY 2020, funding for W&TCV, aircraft, and missile accounts exceeded the requested level for at least seven of the eleven years assessed. Funding for W&TCV was higher than the request every year until FY 2019 and exceeded the requested level by nearly 60 percent in FY 2018. But as Figure 4 shows, the increases above the requested level in terms of dollars was minimal.

Figure 3: Percentage Change of Army Actual Procurement Funding vs. Requested Level by Account

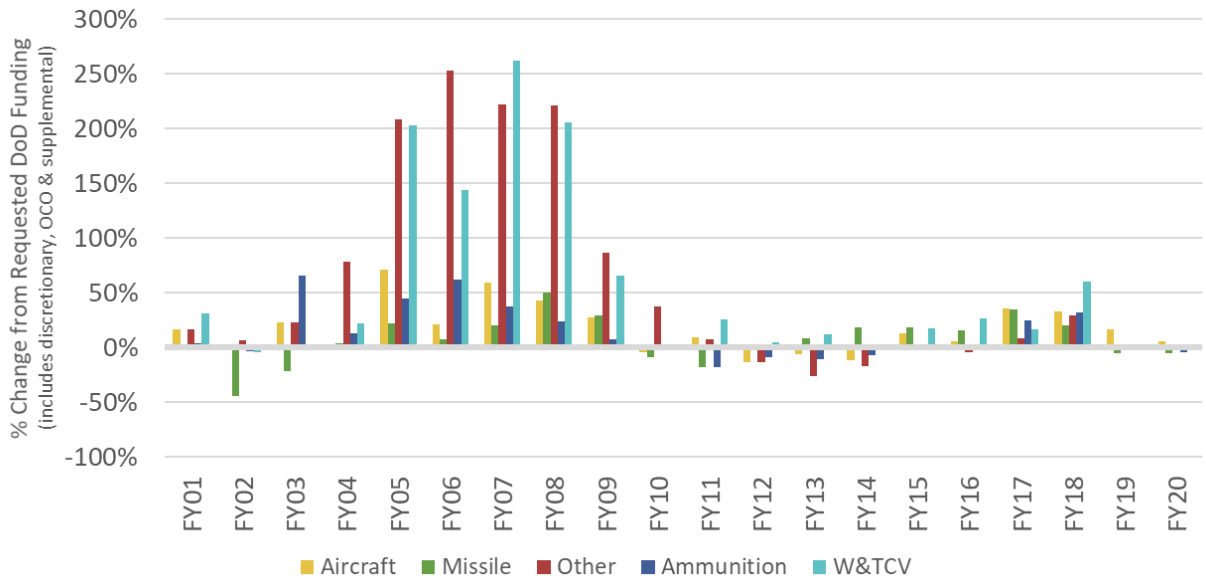
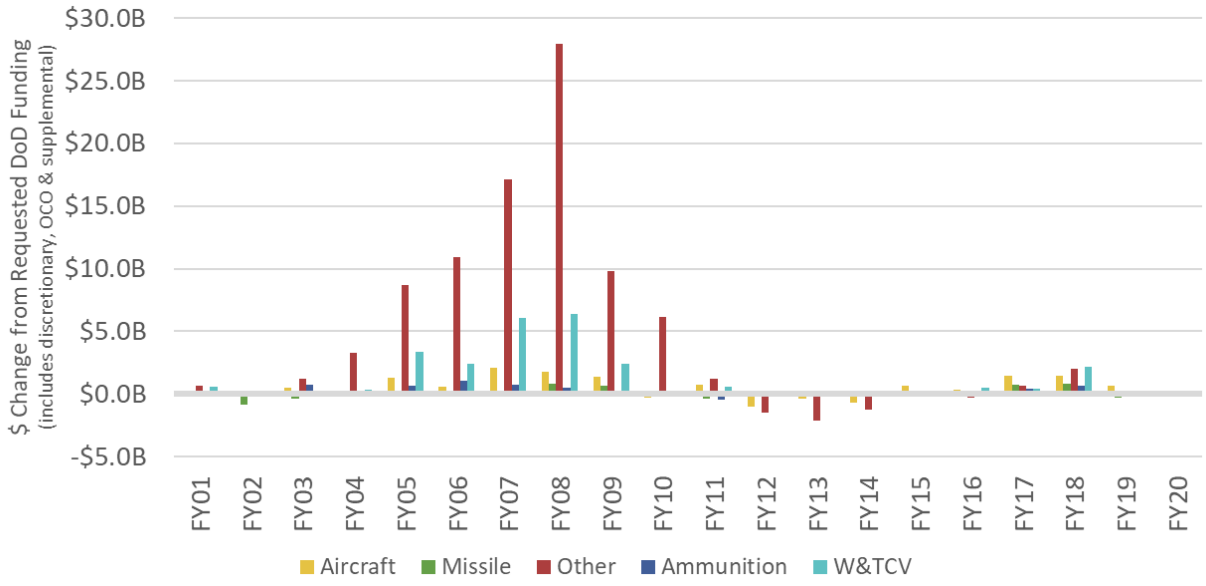


Figure 4: Dollar Change of Army Actual Procurement Funding vs. Requested Level by Account



Similar to the Army, some Navy procurement accounts received sizeable increases above the requested level of funding during the height of operations in Afghanistan and Iraq, as shown in Figure 5 and Figure 6. Between FY 2005 and FY 2007, the Marine Corps' procurement account averaged 384 percent more funding than originally requested, or $4.9 billion in terms of dollars. The 532 percent increase in FY 2007 was due to a $2.4 billion increase in funding above the requested level for the Corps' Explosive Ordinance Disposal (EOD) Systems program, which included funding for Marine Corps MRAPs.

While the Marine Corps procurement account received the most funding above the request in the first period, the Navy's shipbuilding and conversion and aircraft procurement accounts received the largest and most consistent plus ups in the second period. However, Congress regularly appropriated less funding for the Navy's weapons, ammunition, and other accounts than requested over the selected time frame. The shipbuilding and conversion account on average received 6.8 percent more funds than requested between FY 2010 and FY 2020, or just over $1 billion a year. In FY 2018, Congress added $4.6 billion above the requested level of funding. That included funding for one additional littoral combat ship, one additional landing platform dock flight II, and one additional expeditionary sea base.

As Figure 5 shows, Congress also added to the Navy's aircraft procurement account from FY 2015 through FY 2020 for an average increase of 5.1 percent above the requested level over the 11-year period. In FY 2018, Congress appropriated almost $5 billion more than the requested level, which included additional funding for 10 F-35s for the Navy and Marine Corps, 4 KC-130Js for the Marine Corps, 8 V-22s for the Navy and Marine Corps, and 3 P-8s for the Navy.

Figure 5: Percentage Change of Navy Actual Procurement Funding vs. Requested Level by Account

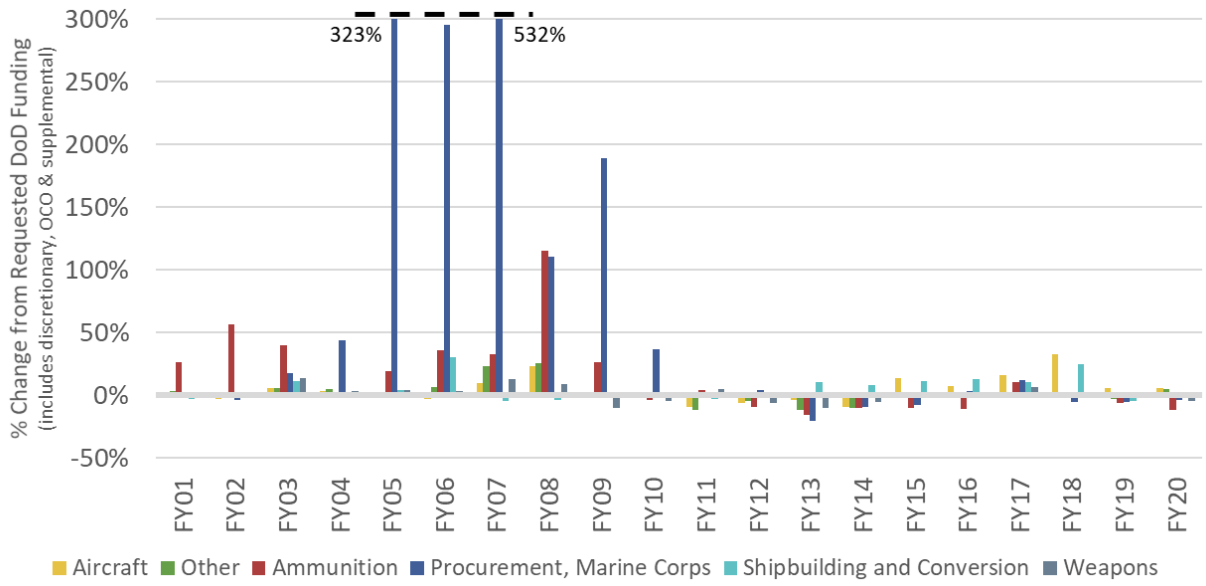


Figure 6: Dollar Change of Navy Actual Procurement Funding vs. Requested Level by Account

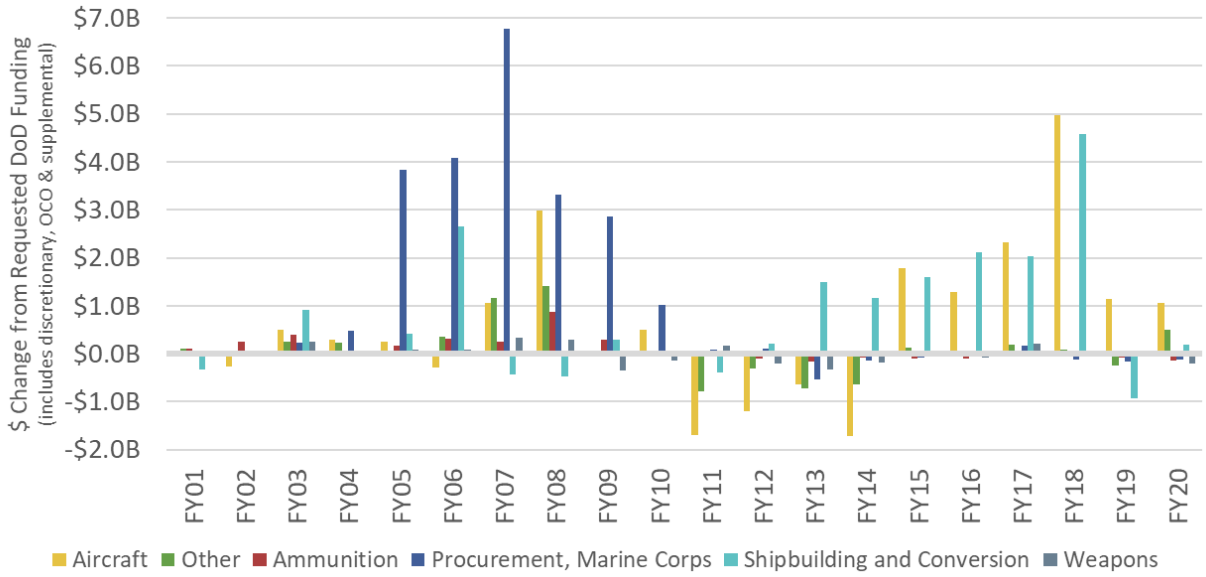


Figure 7: Percentage Change of Air Force Actual Procurement Funding vs. Requested Level by Account

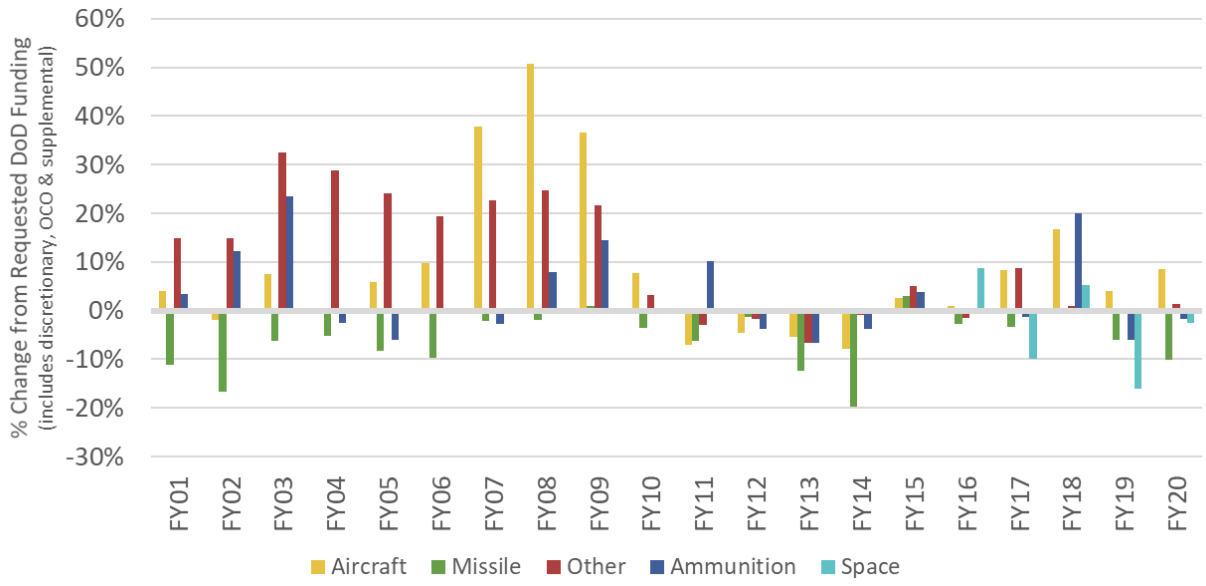
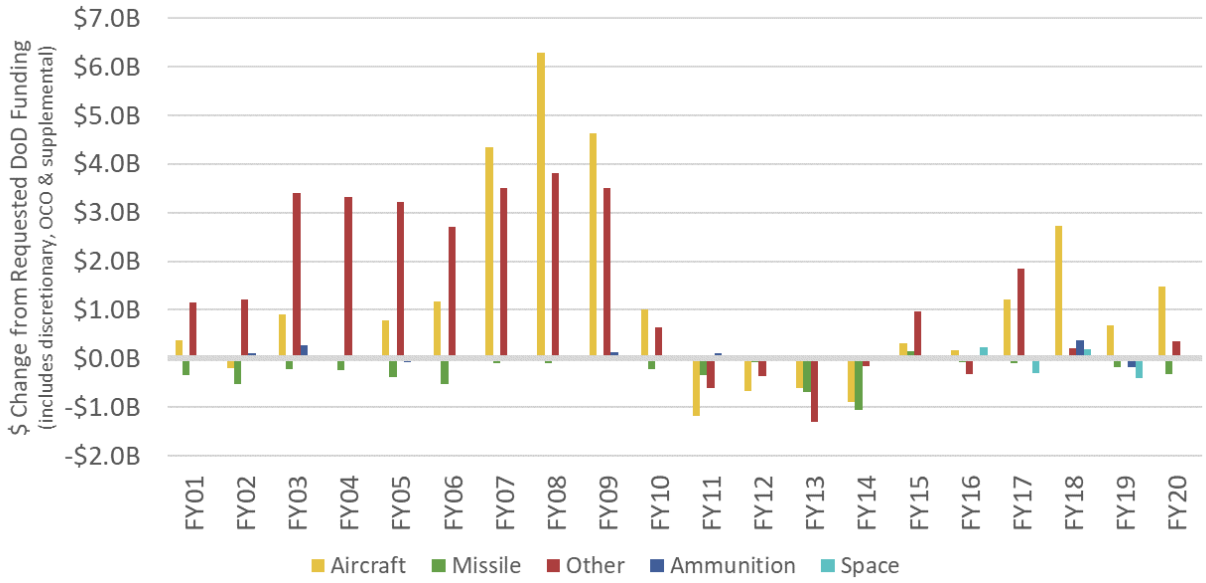


Figure 8: Dollar Change of Air Force Actual Procurement Funding vs. Requested Level by Account



While no Air Force procurement accounts received funding above the requested level to the dramatic degree of some Army and Navy accounts, Air Force aircraft and other procurement accounts consistently received additional funding between FY 2001 and FY 2009, as shown in Figure 7 and Figure 8. On average, aircraft accounts received $2 billion in additional funding per year over that period while other procurement accounts received an average of nearly $2.9 billion more per year. The $6.3 billion increase for aircraft procurement in FY 2008 included additional funds for 15 additional C-17s (originally zero were requested) and 26 additional C-130Js (originally 9 were requested, then an additional 17 under the GWOT request). The increase in other procurement funding was driven by classified programs that likely fall under the Air Force's "non-blue" or "pass-through" funding (McCullough, 2020).

Between FY 2010 and FY 2020, Air Force procurement accounts received relatively smaller plus ups, if any, compared to their Army and Navy counterparts. On average, Congress increased funding for the Air Force aircraft procurement account by an average of 2.2 percent over that period, less than the increases for both the Army and Navy's aircraft accounts. In FY 2018, the aircraft procurement account received $2.7 billion above the requested level. This was due to the additional procurement of 10 F-35As above the original request of 46 aircraft.

After initially receiving nearly 9 percent more funding than requested when the account was created in FY 2016, Air Force space procurement received 5.8 percent less funding than the requested level on average between FY 2017 and FY 2020. The Air Force's missile procurement account was the account cut most by Congress over the selected time frame, receiving an average of 5.7 percent less funding than requested over the FY 2010 to FY 2020 time frame. Congressional funding exceeded the requested level only once over the 11-year period in FY 2015, as depicted in Figure 7.

To compare procurement accounts across the military departments, Table 1 and Table 2 on the following pages rank accounts by the average percent change between the actual level of funding and the requested level over the two time frames (FY 2001 to FY 2009 and FY 2010 to FY 2020).[1] Both tables also include the average dollar change between the actual and requested level of funding to provide context on the size of the account in question. As previously mentioned, the scale of the difference between the requested and actual funding levels is significantly more dramatic in Table 1 due to the sizeable supplemental requests and appropriations for GWOT/OCO funding that were not included with the regular budget submission. As a result, the top accounts in the FY 2001 to FY 2009 period are reflective of the programs that are most directly related to war operations. Indeed, the top-ranked Marine Corps procurement and other Army procurement accounts received funding for the procurement of MRAPs. However, it is worth observing that while some accounts may have received a higher percentage of funding relative to the request due to their small size, others (i.e., Air Force other procurement and aircraft procurement) received sizeable plus ups in terms of dollars. Also of note is that only one account—Air Force missile procurement—received less funding than requested.

[1] Only certain defense-wide accounts are included in this ranking given the irregular nature of some accounts and the fact that others only had several years worth of data compared to the 11 years of data for most other accounts assessed.

Table 1: Average Difference between Requested and Actual Annual Funding Levels by Procurement Account, FY 2001—FY 2009

Account	Average % Change	Average $ Change
Procurement, Marine Corps	167.8%	$2,394M
Other Procurement, Army	123.9%	$8,875M
Procurement of W&TCV, Army	103.1%	$2,374M
Procurement of Ammunition, Navy and Marine Corps	39.6%	$302M
Procurement, Defense-wide	35.2%	$925M
Aircraft Procurement, Army	29.2%	$876M
Procurement of Ammunition, Army	28.3%	$448M
Other Procurement, Air Force	22.6%	$2,869M
Aircraft Procurement, Air Force	16.7%	$2,031M
Other Procurement, Navy	8.1%	$405M
Missile Procurement, Army	7.4%	$110M
Procurement of Ammunition, Air Force	5.6%	$50M
Aircraft Procurement, Navy	4.5%	$517M
Shipbuilding and Conversion, Navy	4.0%	$322M
Weapons Procurement, Navy	3.9%	$83M
Missile Procurement, Air Force	-6.7%	-$266M

By comparison, 6 procurement accounts received less funding than requested over the FY 2010 to FY 2020 period, as shown in Table 2. The top ranked accounts over that period reflect different priorities from those that received the most additional funding in the preceding time frame. The Navy shipbuilding account received the largest average increase above the request in terms of dollars at $1.1 billion. Marine Corps procurement, which received the largest average percent increase (168 percent) between FY 2001 and FY 2009, only saw an average of 0.7 percent more funding per year.

Table 2: Average Difference between Requested and Actual Annual Funding Levels by Procurement Account, FY 2010—FY 2020

Account	Average % Change	Average $ Change
Procurement of W&TCV, Army	15.1%	$388M
Aircraft Procurement, Army	7.5%	$280M
Missile Procurement, Army	7.0%	$114M
Shipbuilding and Conversion, Navy	6.8%	$1,101M
Procurement, Defense-wide	5.8%	$285M
Aircraft Procurement, Navy	5.1%	$437M
Aircraft Procurement, Air Force	2.2%	$208M
Other Procurement, Army	2.0%	$429M
Procurement of Ammunition, Air Force	0.9%	$12M
Procurement of Ammunition, Army	0.9%	$1M
Procurement, Marine Corps	0.7%	$28M
Other Procurement, Air Force	0.5%	$116M
Weapons Procurement, Navy	-1.8%	$63M
Other Procurement, Navy	-2.8%	$172M
Space Procurement, Air Force	-2.9%	$33M
Chemical Agents and Munitions Destruction, Defense	-3.0%	$40M
Procurement of Ammunition, Navy and Marine Corps	-5.5%	$58M
Missile Procurement, Air Force	-5.7%	$267M

Army Navy Air Force Defense-Wide

Procurement Funding by Category

Analyzing the difference between the requested and actual level of funding by category type provides a better impression of Congress' procurement priorities. Table 3 and Table 4 rank the average percent change between the actual level of funding and the requested level over the two time frames for ten distinct categories of procurements assigned by the authors. Based on this data, congressional priorities have shifted. Between FY 2001 and FY 2009, ground systems received the largest average percent increase as well as dollar increase. Support programs as well as communications, sensors, and electronics also received sizeable increases in terms of dollars. Only one category—space systems procurement—received less funding than requested on average. As Figure 9 on the following pages shows, four categories—classified; communications, sensors, and electronics; missiles and munitions; and support programs—received more funding than requested every year between FY 2001 and FY 2009.

Table 3: Average Difference between Requested and Actual Annual Funding Levels by Procurement Category, FY 2001—FY 2009

Category	Average % Change	Average $ Change
Ground Systems	136.9%	$7.9B
Defense-Wide	60.5%	$1.7B
Support and Other	54.4%	$4.0B
Comms, Sensors, and Electronics	46.6%	$3.6B
Classified	21.6%	$2.6B
Missile Defense	17.1%	$0.1B
Missiles and Munitions	14.2%	$1.2B
Aircraft	12.1%	$3.2B
Shipbuilding	3.9%	$0.3B
Space Systems	-9.4%	-$0.1B

Between FY 2010 and FY 2020, Congress regularly increased funding for missile defense programs more than any other category at an average of nearly 18 percent over the requested level. As Figure 10 shows, funding for missile defense exceeded the requested level in 10 out of the 11 years assessed and was almost 55 percent higher than what was requested in FY 2017 due to the Trump administration's mid-cycle proposal for additional funding.

Shipbuilding programs received the second largest increase on average of any distinct category, which could be due to the strong support from representatives for shipyard constituencies in Congress. Lawmakers also increased funding for aircraft and ground systems at an average of 4.6 percent and 3.6 percent above requested levels, respectively. The addition to ground systems was driven by a significant plus up to the Army W&TCV account in FY 2018, as shown in the previous section. Four procurement categories received less than the requested level on average between FY 2010 and FY 2020: missiles and munitions; space systems; communications, sensors, and electronics; and defense-wide programs.

Table 4: Average Difference between Requested and Actual Annual Funding Levels by Procurement Category, FY 2010—FY 2020

Category	Average Percent Change	Average $ Change
Missile Defense	17.8%	$0.3B
Support and Other	10.5%	$1.0B
Shipbuilding	8.9%	$1.6B
Aircraft	4.6%	$1.5B
Ground Systems	3.6%	$0.0B
Classified	0.5%	$0.1
Missiles and Munitions	-1.1%	-$0.1B
Space Systems	-3.7%	-$0.1B
Comms, Sensors, and Electronics	-4.9%	-$0.6B
Defense-Wide	-6.5%	-$0.3B

Figure 9: Actual Procurement Funding vs. Requested by Category, FY 2001—FY 2009

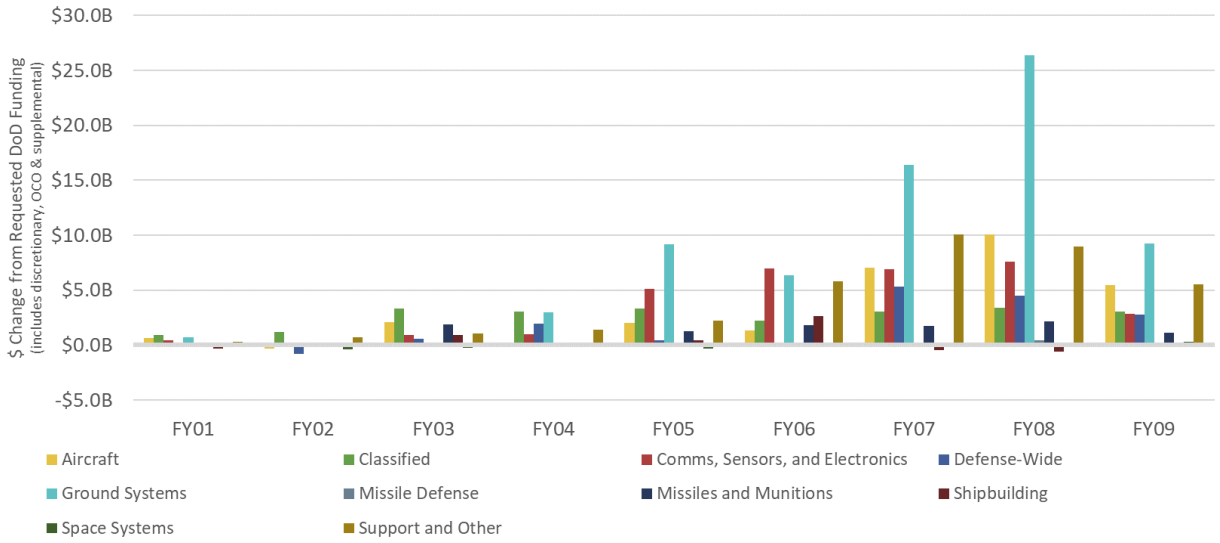
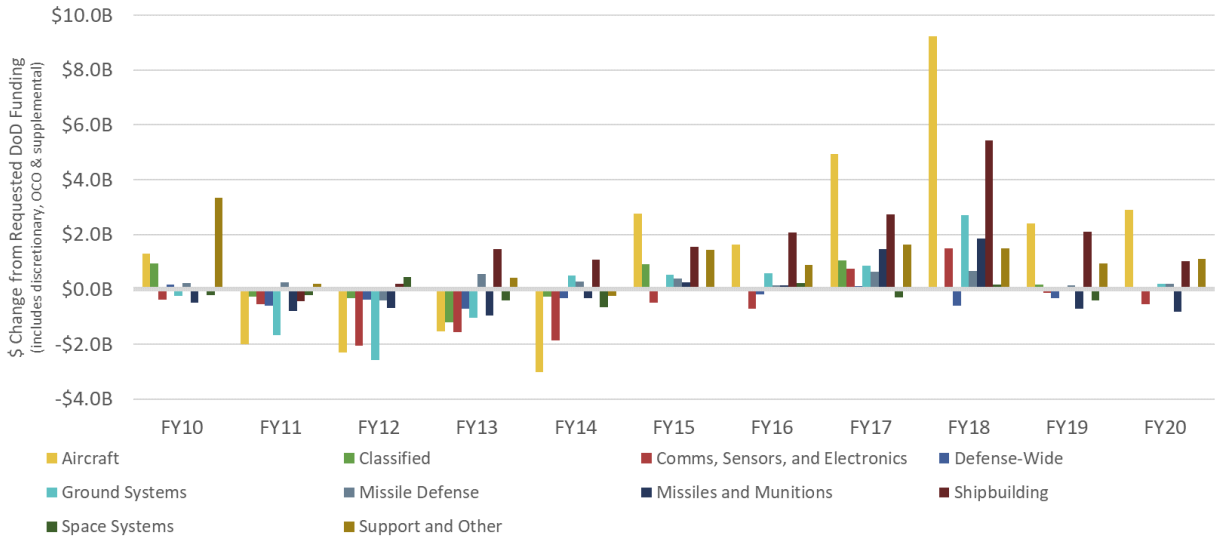


Figure 10: Actual Procurement Funding vs. Requested by Category, FY 2010—FY 2020

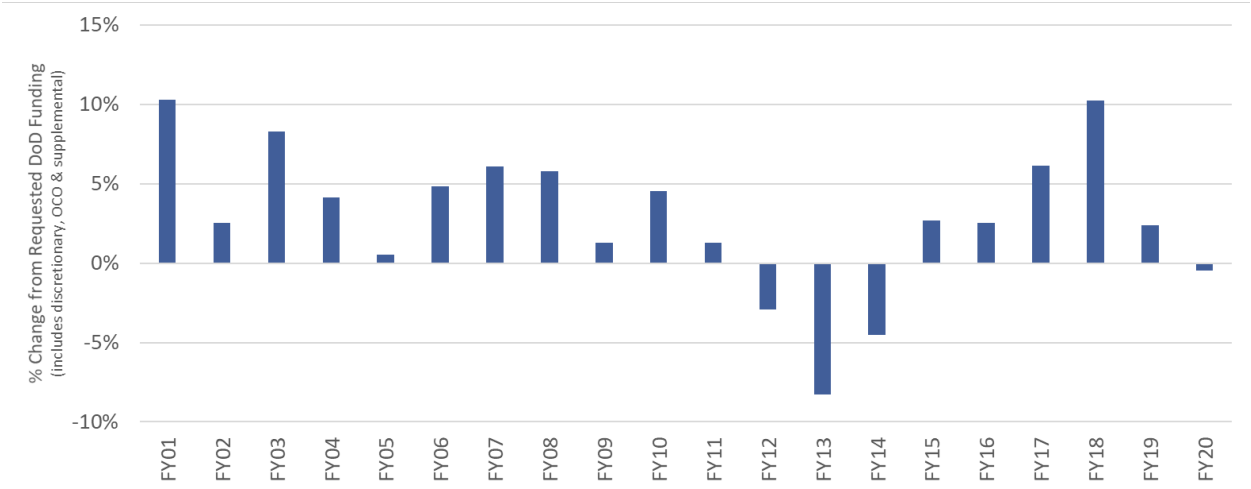


3 | Congressional Action on RDT&E Funding

Topline RDT&E Funding

Like topline procurement funding, total RDT&E funding exceeded the requested level between FY 2001 and FY 2010 and, to a large extent, followed a similar pattern to trends in topline procurement in the FY 2010 to FY 2020 period (with exceptions in FY 2011 and FY 2020) as shown in Figure 11. Similar to procurement, RDT&E accounts also received a generous boost in FY 2018 as a result of the budget deal reached that year. A notable difference from procurement accounts, however, is that very little RDT&E funding came from GWOT or OCO. Over FY 2001 to FY 2009, RDT&E funding was an average of 4.8 percent higher than the requested level and 1.2 percent higher on average between FY 2010 and FY 2020.

Figure 11: Actual Total RDT&E Funding vs. Requested Level



RDT&E Funding by Budget Activity

Funding for RDT&E is organized into different budget activities that "correspond to different phases of the development process" (Harrison and Daniels, 2020, p. 9). They include:

- Basic Research (6.1)
- Applied Research (6.2)
- Advanced Technology Development (6.3)
- Advanced Component Development and Prototypes (6.4)
- System Development and Demonstration (6.5)
- Management Support (6.6)
- Operational Systems Development (6.7)

Funding for the first three budget activities is collectively referred to as Science and Technology (S&T) funds. In the FY 2021 request, DoD requested funds for a new budget activity, Software & Digital Technology Pilot Programs (6.8), but because it did not appear until FY 2021, it does not fall with the range of data analyzed for this study.

Table 5 and Table 6 show the average percent change and average dollar chance between the requested and actual funding levels for each RDT&E budget activity in the selected time frames. On average, Management Support received the most funding above the request in both periods. The Management Support budget activity received more funding than requested in all 20 years during the period of analysis, as shown in Figure 12 and Figure 13.

Table 5: Average Difference between Requested and Actual Annual Funding Levels by RDT&E Budget Activity, FY 2001—FY 2009

Budget Activity	Average % Change	Average $ Change
Basic Research (6.1)	6.5%	$88M
Applied Research (6.2)	16.4%	$645M
Advanced Technology Development (6.3)	20.6%	$983M
Aggregate S&T Funding	*17.0%*	*$1,716M*
Advanced Component Development and Prototypes (6.4)	-0.4%	-$178M
System Development and Demonstration (6.5)	-3.2%	-$618M
Management Support (6.6)	39.8%	$1,357M
Operational Systems Development (6.7)	3.0%	$564M
Total RDT&E Average	*4.8%*	*$2,840M*

Lawmakers also provided overall S&T accounts (budget activities 6.1, 6.2, and 6.3) additional funding on average, 17 percent more between FY 2001 and FY 2009 and 9.1 percent more between FY 2010 and FY 2020. While Advanced Technology Development accounts received additional funding each fiscal year during the first period at an average increase of 20.6 percent, they only received approximately 5 percent more on average during the second period. In fact, Advanced Technology Development programs received less funding than requested in 4 of the 11 years. Between FY 2010 and FY 2020, Applied Research received the second-most additional funding at an average increase of 16.5 percent per year.

Table 6: Average Difference between Requested and Actual Annual Funding Levels by RDT&E Budget Activity, FY 2010—FY 2020

Budget Activity	Average % Change	Average $ Change
Basic Research (6.1)	2.0%	$45M
Applied Research (6.2)	16.5%	$845M
Advanced Technology Development (6.3)	4.9%	$297M
Aggregate S&T Funding	*9.1%*	*$1,187M*
Advanced Component Development and Prototypes (6.4)	0.6%	$176M
System Development and Demonstration (6.5)	-6.6%	-$1,020M
Management Support (6.6)	28.9%	$1,401M
Operational Systems Development (6.7)	-2.5%	-$661M
Total RDT&E Average	*1.2%*	*$1,083M*

The System Development and Demonstration and Operational Systems Development budget activities both received less funding than the requested level on average over the FY 2010 to FY 2020 period. Congress provided an average of 6.6 percent less funding than requested for System Development and Demonstration while Operational Systems Development received 2.5 percent less than the requested level on average.[2] Advanced Component Development and Prototypes only received an average of 0.6 percent more than the request.

[2] In the FY 2010 R-1 justification spreadsheets, DoD requested approximately $17.7 billion in RDT&E funding for FY 2010 for "Other Programs" categorized under budget activity 99 and reported actual funding of $16.6 billion for FY 2008 under the

Figure 12: Actual RDT&E Funding vs. Requested Level by Budget Activity, FY 2001—FY 2009

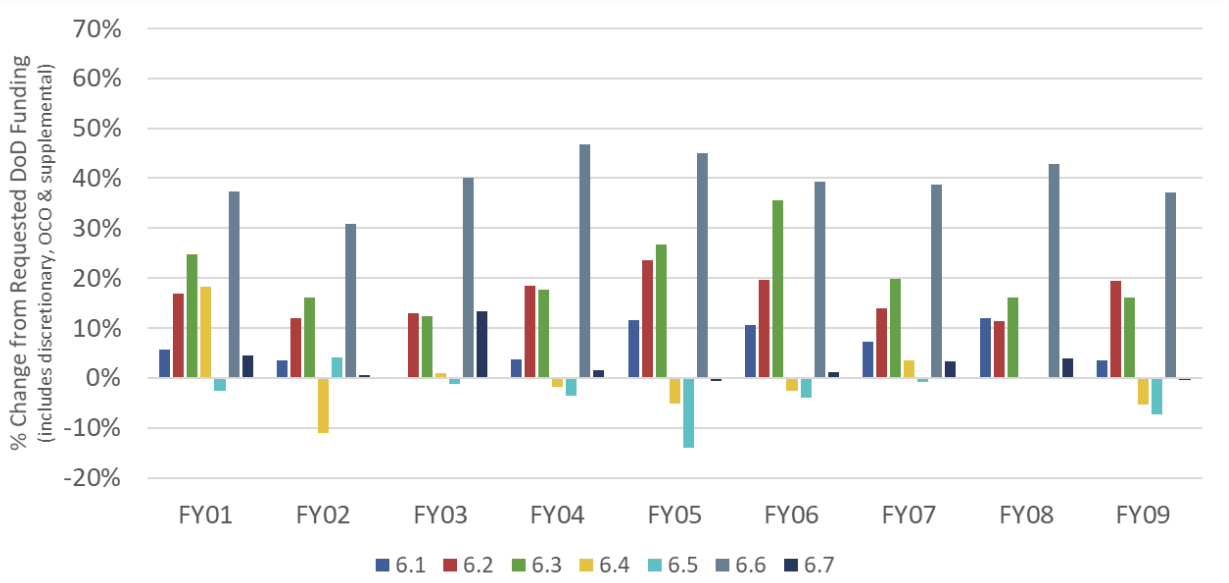
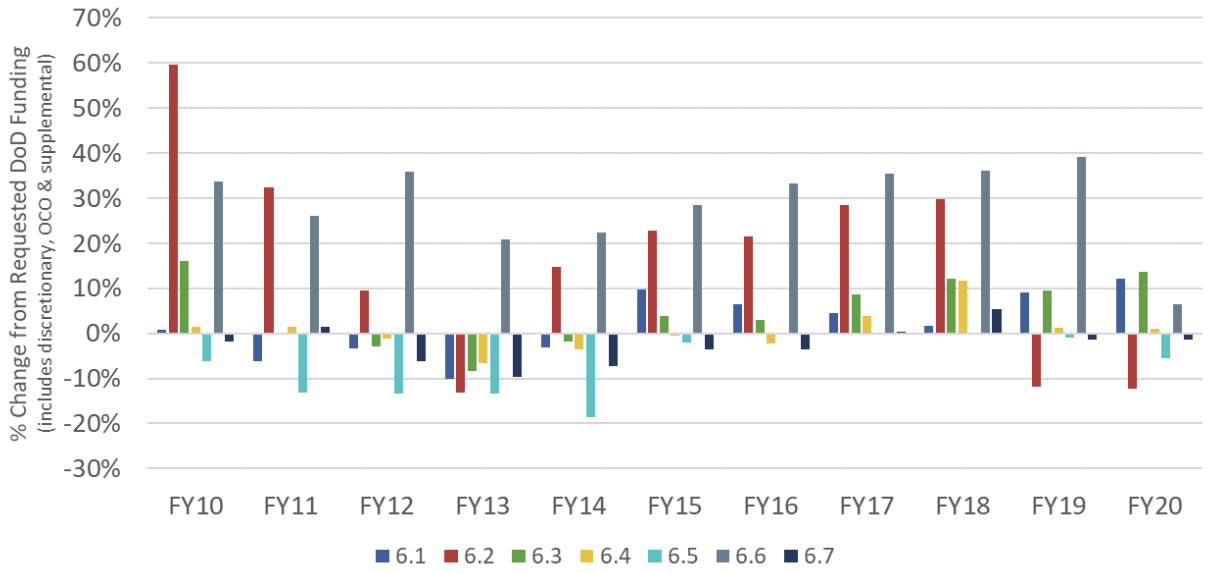


Figure 13: Actual RDT&E Funding vs. Requested Level by Budget Activity, FY 2010—FY 2020

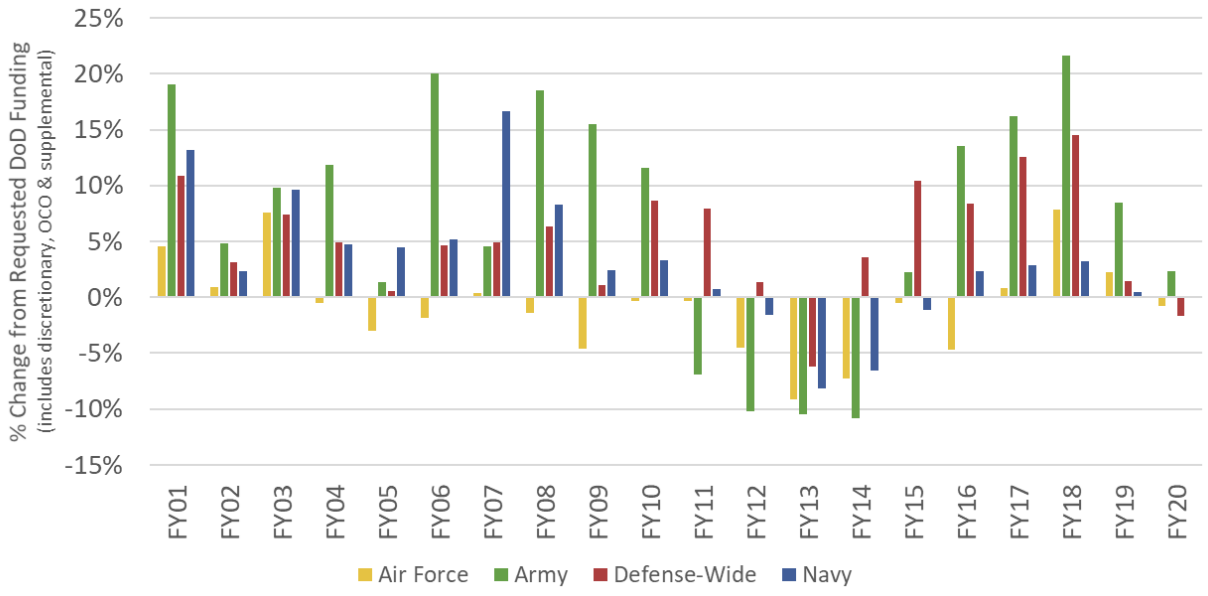


same activity. The R-1 justification book in PDF form specified those amounts as funding for classified programs. While the spreadsheets assigned that funding to budget activity 99, calculations based on the data in the justification book showed that just over $17.5 billion of the requested classified amount for FY 2010 fell under budget activity 6.7 and the remainder fell under budget activity 6.6. The actual funding for FY 2008 was divided between 6.7 and 6.6 at roughly the same proportions. The analysis above incorporates the classified amount under 6.7 and 6.6 based on the justification book data.

RDT&E Funding by Military Department

When assessed by military department over the 20-year period between FY 2001 and FY 2020, Army RDT&E programs received the greatest increase relative to the request at an average of 7.2 percent followed by defense-wide programs at 5.2 percent. As Figure 14 shows, Army RDT&E was almost 12 percent higher on average than the requested level from FY 2001 to FY 2009 and surpassed 20 percent in FY 2018. While the Navy received 7.4 percent more funding than requested between FY 2001 and FY 2009, it averaged 0.4 percent less than requested from FY 2010 to FY 2020. Air Force RDT&E funding fared the worst relative to the other departments, receiving 0.2 percent more than requested in the first time frame and 1.5 percent less in the second.

Figure 14: Actual RDT&E Funding vs. Requested Level by Military Department



4 | Final Thoughts

The appropriations process is one of Congress' primary tools in exercising its oversight authority on the executive branch's defense policy and, more specifically, its defense acquisition plans. As the preceding analysis has illustrated, the process enables lawmakers to signal their priorities to the administration by increasing or decreasing the funding levels for programs in the annual budget request.

However, as this study has shown, congressional action on defense acquisition funding is also shaped by the broader strategic and political context. While it is difficult to discern exactly how much of the difference between what was requested and what was executed is due to congressional action versus DoD actions (reprogramming, supplemental requests, etc.), the overall trends in the data are instructive. Defense acquisition funding between FY 2001 and FY 2009 followed a distinct pattern based on requirements and supplemental appropriations for military operations in Afghanistan and Iraq. The need for the MRAP vehicle in particular drove supplemental procurement spending to the Army and Marine Corps in FY 2008.

Similarly, congressional action on procurement and RDT&E accounts largely followed similar trends over the past decade, due in no small part to the impact of the BCA and subsequent budget deals. With minor exceptions, Congress underfunded (relative to the request) both procurement and RDT&E accounts following the passage of the BCA in FY 2011, and it appropriated more than requested beginning in FY 2015. The budget deal reached in 2018 (BBA 2018) led to a notable increase above the request for procurement and RDT&E accounts in that same year.

Notwithstanding external considerations, Congress has clear favorites among defense acquisition accounts. Missile defense programs consistently receive more funding than requested as do aircraft programs (barring several years of underfunding around the enactment of the BCA). Between FY 2010 and FY 2020, shipbuilding programs averaged $1.6 billion more procurement funding per year than requested, the highest annual average increase among procurement categories.

On the RDT&E side, lawmakers regularly increase RDT&E funding for Management Support (6.6) and S&T (6.1, 6.2, & 6.3), although additional funding for Advanced Technology Development (6.3) programs fell significantly between the first and second decades of the 21st century. Support for other budget activities is not as strong.

While Congress can enact its own defense priorities via the appropriations process, concerns over strategy and program performance are not the only drivers of congressional preferences for some programs over others. The appropriations process also serves as a political tool for lawmakers to serve their constituencies, which may include defense factories that produce aircraft or shipyards constructing future vessels.

For the executive branch, the budget request can similarly serve a political purpose for enacting the administration's priorities. With the knowledge that Congress regularly increases funding for some accounts above the request, DoD can be strategic in signaling its own plans to the Hill. For example, it could cut funding from some accounts in the budget request if it feels confident that Congress is likely to restore that money later in the process. Understanding these trends in Congressional action can enable policymakers, program managers, and industry leaders alike to improve planning and efficiency in the overall acquisition process.

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