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Trends in Department of Defense Other Transaction Authority Usage: A Preliminary Look

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Trends in Department of Defense Other Transaction Authority Usage: A Preliminary Look

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Abstract

The federal government's use of Other Transaction Authority (OTA) agreements has exploded in recent years, thanks in large part due to a surge in popularity within the Department of Defense (DoD). Neither a contract, grant, or cooperative agreement, OTAs are an acquisition approach that enable certain federal agencies to access goods and services outside of the traditional acquisition system. This research examines the trends in OTA usage across the DoD to provide insights into what the DoD is using OTAs for, how they are spending under an OTA, and to whom the majority of OTA obligations go.

Introduction

Other Transaction Authorities (OTAs) have become an increasingly popular tool across the DoD as senior Pentagon officials and congressional leadership seek ways to guide the defense acquisition enterprise as it seeks to maintain continued U.S. technological superiority against global competitors like China and Russia. Subsequently, DoD OTA obligations increased from $0.76 billion to $16.18 billion between Fiscal Year (FY) 2015 and FY2020. Neither contracts, grants, nor cooperative agreements, OTAs are a more flexible acquisition approach that enables specific federal agencies to access goods and services outside of traditional acquisition processes.[1] These authorities give these agencies greater flexibility and customization in designing appropriate acquisition approaches, but they are not without risk. OTAs are often more restricted to a specific set of activities, largely centered around research and development (R&D), and require a more skilled acquisition workforce to design and execute these activities that may lack the necessary familiarity and training amongst the broader community.

The DoD has had some form of OTA authority since 1989 (when the Defense Advanced Research Projects Agency [DARPA] was given the authority to enter into OTAs), so what explains its increased popularity in recent years? The DoD's recent interest in OTAs is heavily driven by the FY2015 and FY2016 National Defense Authorization Act (NDAA) expanding what the DoD can use OTAs to accomplish. Section 812 of the FY2015 NDAA expanded the range of what types of prototypes could be perused under an OTA, while Section 815 of the FY2015 NDAA "expanded DoD's OTA authority by making DoD's OTA authority permanent, modifying the definition of nontraditional defense contractor, and allowing DoD to issue follow-on production contracts for OTA prototypes" (McCormick, 2019). In the FY2016 NDAA conference report, House and Senate conferees noted that the expansion of the DoD's OTA authorities was designed to "support Department of Defense efforts to access new source of technical

[1] Besides the DoD, the following 10 federal agencies have some form of OTA authority: Advanced Research Projects Agency–Energy, Department of Energy, Department of Health and Human Services, Department of Homeland Security, Department of Transportation, Federal Aviation Administration, Domestic Nuclear Detection Office, National Aeronautics and Space Administration, National Institute of Health, and the Transportation Security Agency.

innovation" by making OTAs "attractive to firms and organizations that do not usually participate in government contracting due to the typical overhead burden and 'one size fits all' rules" (H.R. Rep. No. 114-270, 2015).

The following paper examines the notable trends in the DoD OTA authorities since the FY2015 and FY2016 NDAA statuary changes expanded the DoD's OTA authorities and seeks to answer the following research questions:

- What are the topline trends in the DoD's OTA usage?
- What is the DoD procuring using OTAs?
- How are the different DoD components using OTAs?
- What is the extent of competition for DoD OTA awards?
- From whom is the DoD procuring using OTAs?

This brief builds and expands on the methodology used in other CSIS reports that employ data from the Federal Procurement Data System (FPDS). Unlike other Defense-Industrial Initiatives Group reports on federal contracting, which rely on bulk data downloaded from https://www.usaspending.gov/, this brief relies on the data downloaded directly from https://beta.sam.gov/ and https://www.fpds.gov/. All dollar figures are reported in constant FY2020 dollars, using Office of Management and Budget (OMB) deflators.

Topline Trends

The data show that the rapid growth in the DoD's usage of OTAs did not slow down in FY2020. DoD OTA obligations increased 113% last year, rising from $7.6 billion in FY2019 to $16.2 billion in FY2020. Between FY2015 and FY2020, DoD OTA obligations have increased from $0.76 billion to $16.2 billion, a 2,030% increase (see Figure 1). Of note, while the sum of OTA dollars obligated increased 113% last year, the Sum of Base and All Options Value or potential total contract value of DoD OTA obligations only increased 1%. This could suggest that while OTAs are likely to continue to rise in future years, we might not see the same level of year-over-year growth that we have seen in recent years.

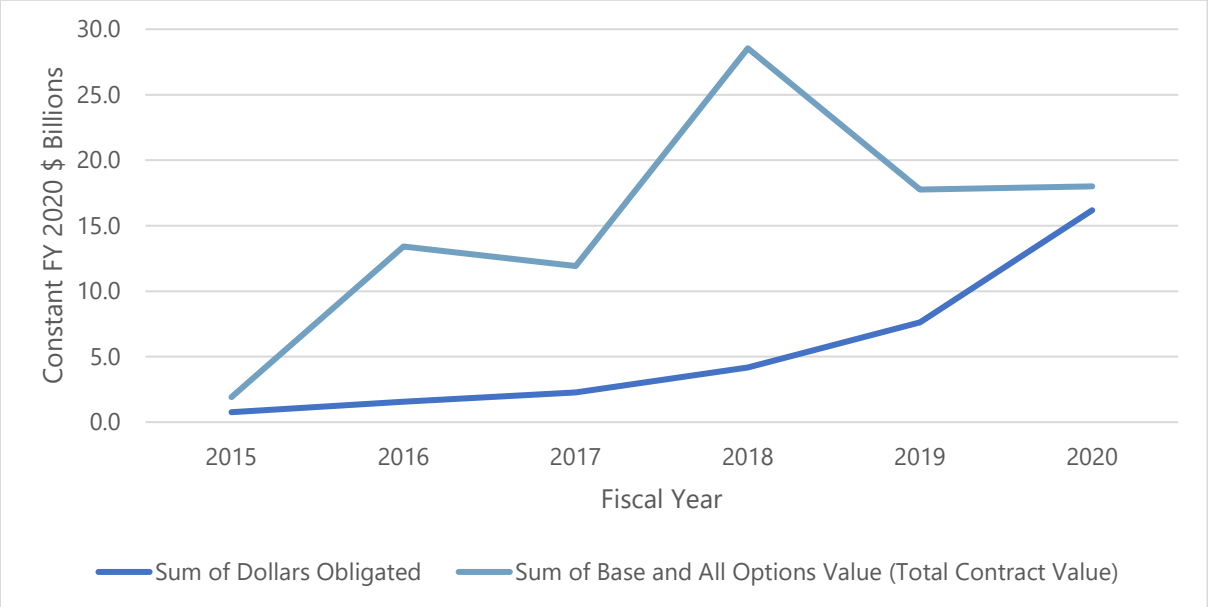

Figure 1. Defense OTA Obligations, 2015–2020 (Source: FPDS; CSIS analysis)

What Is the DoD Buying With OTAs?

Given the purpose of OTAs, it is not surprising that the DoD has predominantly used OTAs for R&D activities, but OTAs are not unique to R&D. Between FY2015 and FY2020, 89% of total DoD OTA obligations were awarded for R&D compared to 8% for Products and 3% for Services.

OTA R&D obligations increased from $6.7 billion in FY2019 to $14.8 billion in FY2020, a 122% increase. Between FY2015 and FY2020, DoD OTA R&D obligations increased 1,850%.

OTA Products contract obligations increased from $0.6 billion in FY2019 to $0.95 billion in FY2020, a 59% increase. Between FY2015 and FY2020, DoD OTA Products obligations increased 43,654%.

OTA Services contract obligations increased from $0.4 billion to $0.5 billion last year, a 29% increase. DoD OTA services obligations are up 58,761% between FY2015 and FY2020.

Figure 2 shows defense OTA obligations by area from FY2015 to FY2020.

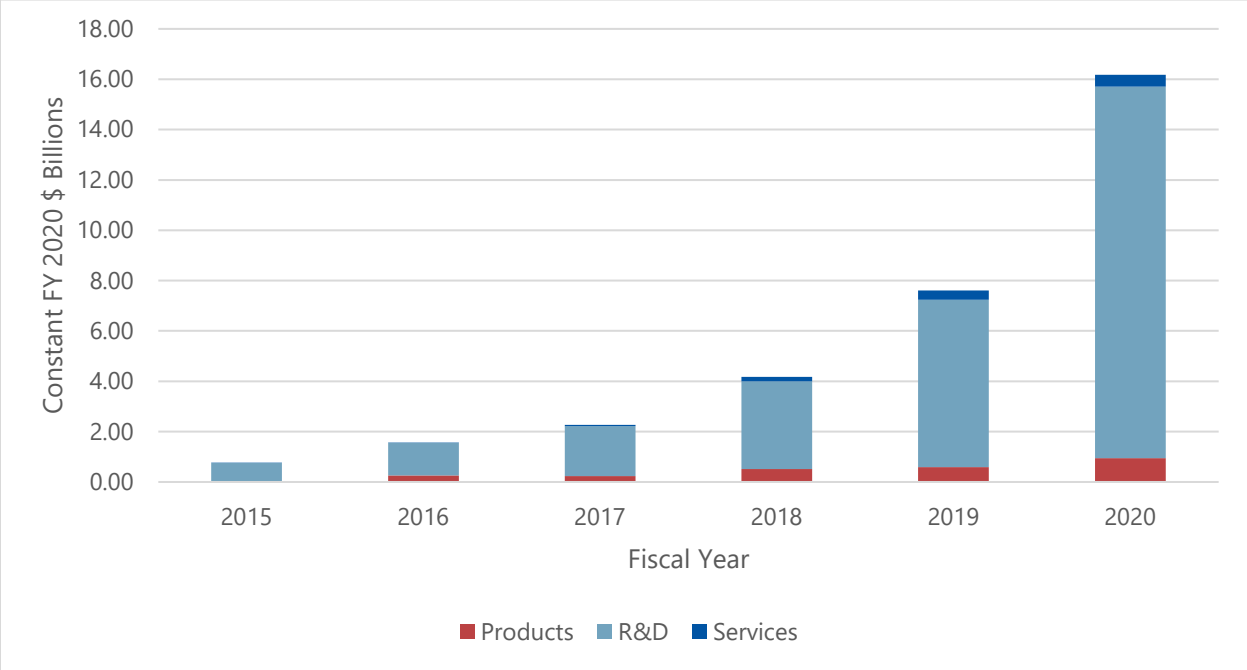

Figure 2. Defense OTA Obligations by Area, 2015–2020 (Source: FPDS; CSIS analysis)

As shown in Figure 3, unsurprisingly the predominance of DoD OTA obligations in recent years have gone to prototypes efforts. It is only in recent years that the DoD has received the authority to award follow-on production OTA agreements, so it is not too surprising to see that production OTAs are still in their infancy. While there is not much to this data at this point in time, this will be an important area that CSIS will continue to monitor into the future as the DoD evolves its approach to the emerging new R&D funding paradigm.

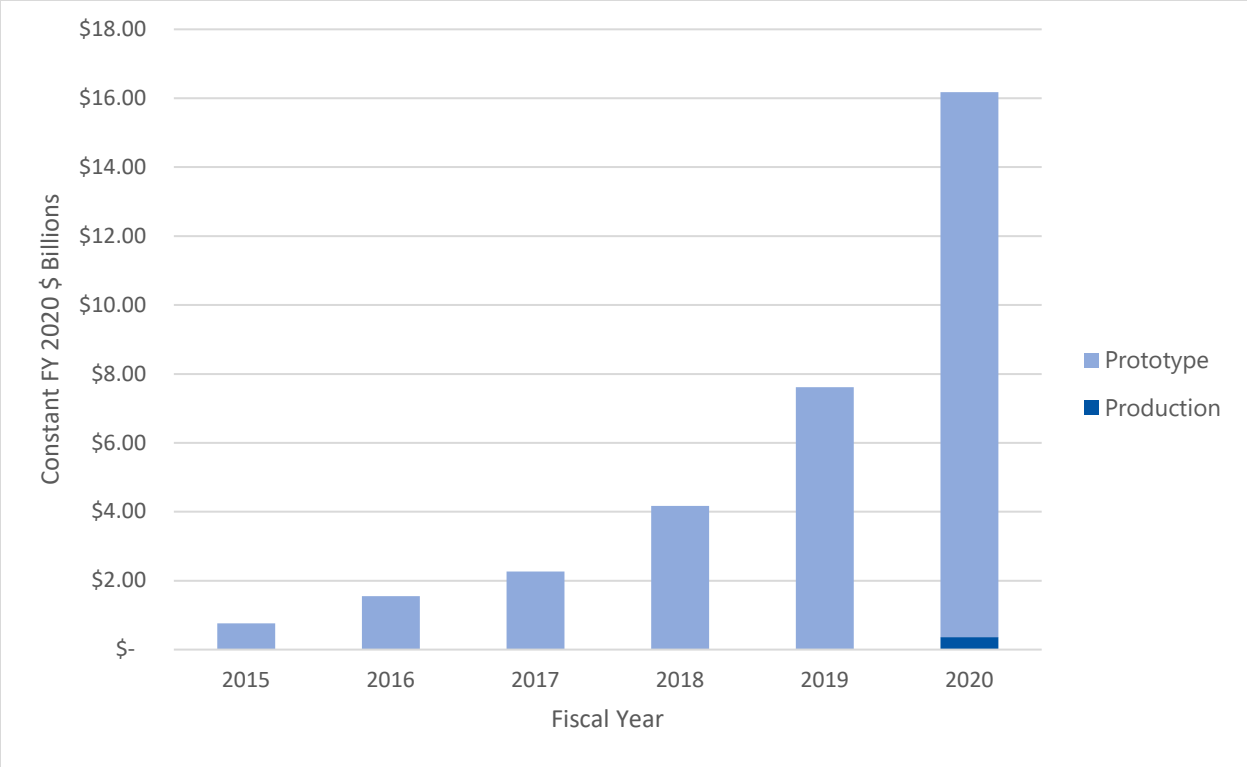

Figure 3. Defense OTA Obligations by Type of Agreement, 2015–2020 (Source: FPDS; CSIS analysis)

How Is the DoD Using OTAs for R&D?

Previous CSIS research showed that "OTAs are taking on a more major role in the mid-to-late stages of the development pipeline for major weapon systems" (McCormick, 2000a). While this largely held true into FY2020, there were several notable developments and shifts in the composition of the DoD's OTA R&D portfolio.

In the mid-stage R&D activities, there was significant growth in Advanced Technology Development (6.3), while Advanced Component Development & Prototypes (6.4) actually declined slightly. Advanced Technology Development OTA obligations increased from $0.6 billion in FY2019 to $8.0 billion, a 1,196% increase. Meanwhile, Advanced Component Development & Prototypes OTA obligations declined 1% in FY2020, falling from $3.9 billion to $3.8 billion.

In the later-stages of the weapon-systems development pipeline, there was actually a drop-off from previous levels. System Development & Demonstration (6.5) OTA obligations declined 37%, totaling $0.5 billion in FY2020 compared to $0.8 billion in FY2019. This decline was somewhat offset by the gains in OTA obligations Operational Systems Development (6.7), but Operational Systems Development still accounts for less than 1% of all DoD OTA obligations.

Finally, both Basic Research (6.1) and Applied Research (6.1) saw increased OTA obligations in 2020, but the two early-stage R&D activities both fell as a share of overall defense OTA spending. Basic Research OTA obligations increased from $0.3 billion to $0.5 billion, a 50% increase. However, Basic Research fell as a share of overall defense obligations from 5% to 3%. Applied Research saw an 87% increase in OTA obligations in FY2020 from FY2019 but fell as a share of overall defense obligations from 15% to 13%.

Figure 4 shows defense OTA obligations by stage of R&D from FY2015 to FY2020.

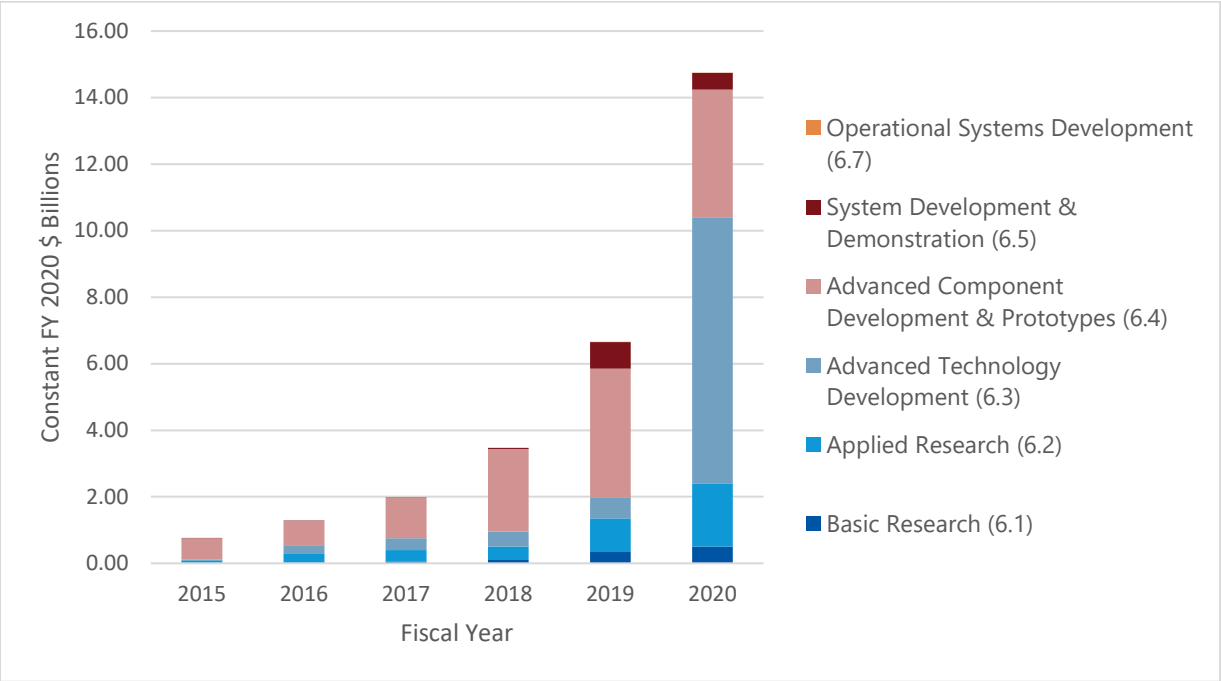

Figure 4. Defense OTA Obligations by Stage of R&D, 2015–2020 (Source: FPDS; CSIS analysis)

DoD OTA Awards by Platform Portfolio

As shown in Figure 5, several trends emerge in analyzing DoD OTA obligations by platform portfolio.

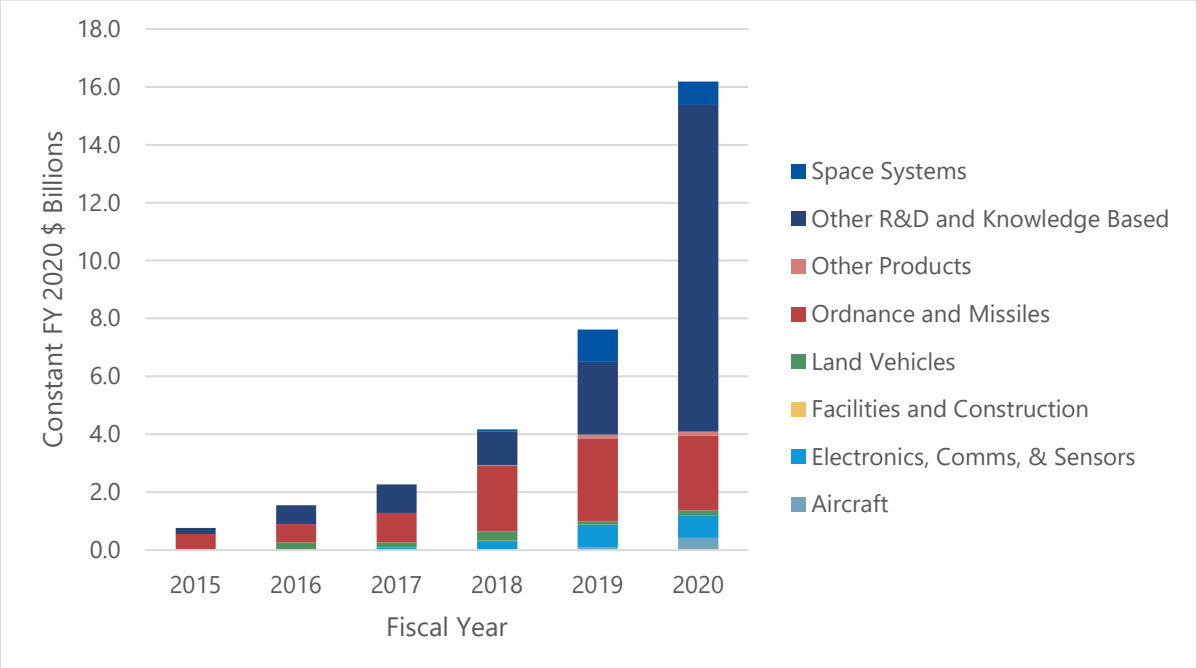

Figure 5. Defense OTA Obligations by Platform Portfolio, 2015–2020 (Source: FPDS; CSIS analysis)

Aircraft OTA obligations increased from $0.1 billion in FY2019 to $0.4 billion in FY2020, a 3,365% increase.

Space Systems, which had been on an uptick in recent years, saw a decline in OTA obligations last year. Defense Space Systems OTA obligations declined 27% in FY2020, falling from $1.1 billion to $0.8 billion.

Ordnance and Missiles, the predominant OTA platform portfolio prior to the recent statutory changes, saw a decline in OTA obligations in FY2020 but remains the second largest platform portfolio. Ordnance and Missile OTA obligations declined from $2.9 billion in FY2019 to $2.6 billion in FY2020, a 10% decline. However, Ordnance and Missiles OTA obligations are still up 373% between FY2020. As a share of overall defense OTA obligations, Ordnance and Missiles fell from 72% in FY2015 to 16% in FY2020.

Other R&D and Knowledge Based, previously the second-largest platform, succeeded Ordnance and Missiles as the largest OTA platform portfolio in FY2020.[2] Other R&D and Knowledge Based contract obligations increased a staggering 350% last year. Total Other R&D and Knowledge Based OTA obligations increased from $2.5 billion to $11.3 billion. This increase was primarily driven by R&D- DEFENSE OTHER: SERVICES (ADVANCED DEVELOPMENT), which saw an increase in OTA obligations from $0.14 billion in FY2019 to $7.2 billion in FY2020, a 5,013% increase. Of note, the following product or service codes comprised the top five Other R&D and Knowledge Based accounts ordered by total OTA obligations between FY2015 and FY2020:

1. R&D- DEFENSE OTHER: SERVICES (ADVANCED DEVELOPMENT)
2. R&D- DEFENSE OTHER: OTHER (ENGINEERING DEVELOPMENT)
3. EDUCATION/TRAINING- COMBAT
4. R&D- MEDICAL: BIOMEDICAL (APPLIED RESEARCH/EXPLORATORY DEVELOPMENT)
5. R&D- MEDICAL: BIOMEDICAL (ADVANCED DEVELOPMENT)

How Are the Different DoD Components Using OTAs?

The Army remains the leader in OTA usage across DoD components, but other components have also seen substantial increases in recent years. In FY2020, Army OTA obligations increased from $5.1 billion to $13.2 billion, a 161% increase. Army OTA obligations have increased 1,840% since FY2015. After seeing an uptick in OTA obligations in FY2019, Air Force OTA obligations declined last year. Air Force OTA obligations declined 20% last year, falling from $1.7 billion in FY2019 to $1.3 billion in FY2020. After a slow start to OTA usage, the Navy has seen a significant increase in OTA usage over the last 2 years. Navy OTA obligations increased from $0.2 billion in FY2019 to $0.6 billion in FY2020, a 253% increase. Between FY2015 and FY2020, Navy OTA obligations increased 24,633%. There was a notable increase in OTA obligations last year for "Other DoD," largely driven by the Washington Headquarters Services (WHS).

Between FY2015 and FY2020, the Army accounted for 76% of total defense OTA obligations compared to the Air Force and DARPA, which both accounted for 12% while the Navy accounted for approximately 3%. In FY2020, the Army accounted for 82% of defense OTA obligations; the Air Force accounted for 8% of defense OTA obligations last year after accounting for 22% the previous year; DARPA fell to 2%; and the Navy rose slightly to 4%.

[2] *Other R&D and Knowledge Based* serves as a catch-all category that doesn't fit into platform portfolios but includes a wide range of activities that include biomedical, technical services, and other R&D activities.

Figure 6 shows defense OTA obligations by customer from FY2015 to FY2020.

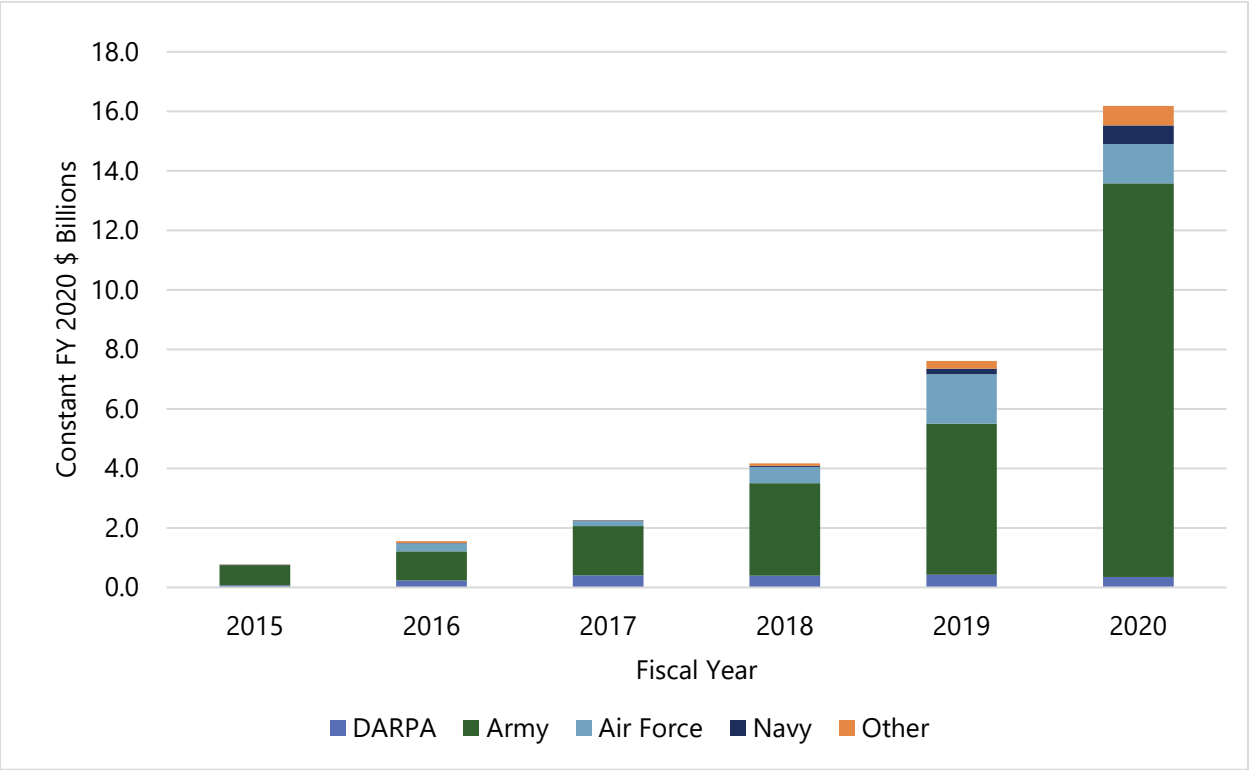

Figure 6. Defense OTA Obligations by Customer, 2015–2020 (Source: FPDS; CSIS analysis)

Army Contracting Command New Jersey (ACC–NJ), headquartered out of Picatinny Arsenal, once again remains as the largest contracting office awarding OTAs across all of the DoD. In FY2020, ACC–NJ accounted for 62% of all DoD OTA obligations and has accounted for 60% of all DoD OTA obligations between FY2015 and FY2020. Outside of ACC–NJ, the Army continues to retain several contracting offices executing OTAs, accounting for five of the top 10 DoD OTA contracting offices between FY2015 and FY2020. Outside of the Army, two Air Force contracting offices remained in the top 10—Launch Enterprise Systems Directorate and Space Development & Test Wing—but the Air Force Life Cycle Management Center (HNK C3IN), fell out of the top 10 and was replaced by Joint Munitions Command.

Table 1 shows the top 10 defense OTA contracting offices between FY2015 and FY2020.

Table 1. Top 10 DoD OTA Contracting Offices, 2015–2020 (Source: FPDS; CSIS analysis)

Contracting Office Rank	Contracting Office	Component	Total Obligations 2015–2020 ($ Billions)
1	ACC–Picatinny, NJ	Army	19.5
2	DARPA	DARPA	1.9
3	Launch Enterprise Systems Directorate	Air Force	1.8
4	ACC–Aberdeen Proving Grounds	Army	1.7
5	ACC–Redstone Arsenal	Army	1.3
Top 5 Total			**26.2**
6	Space Development & Test Wing	Air Force	0.8
7	WHS	Other DoD	0.6
8	TACOM	Army	0.5
9	Joint Munitions Command	Army	0.5
10	ACC–Orlando	Army	0.4
Top 10 Total			**28.9**
Overall DoD Total			**32.5**

Competition for DoD OTA Awards

As shown in Figure 7, the data continue to show positive trends in the rates of competition for DoD OTA obligations. Just 10% of DoD OTA obligations were competed in FY2015, but that share has been rising every year since. In FY2020, 92% of DoD OTA obligations were awarded after competition.

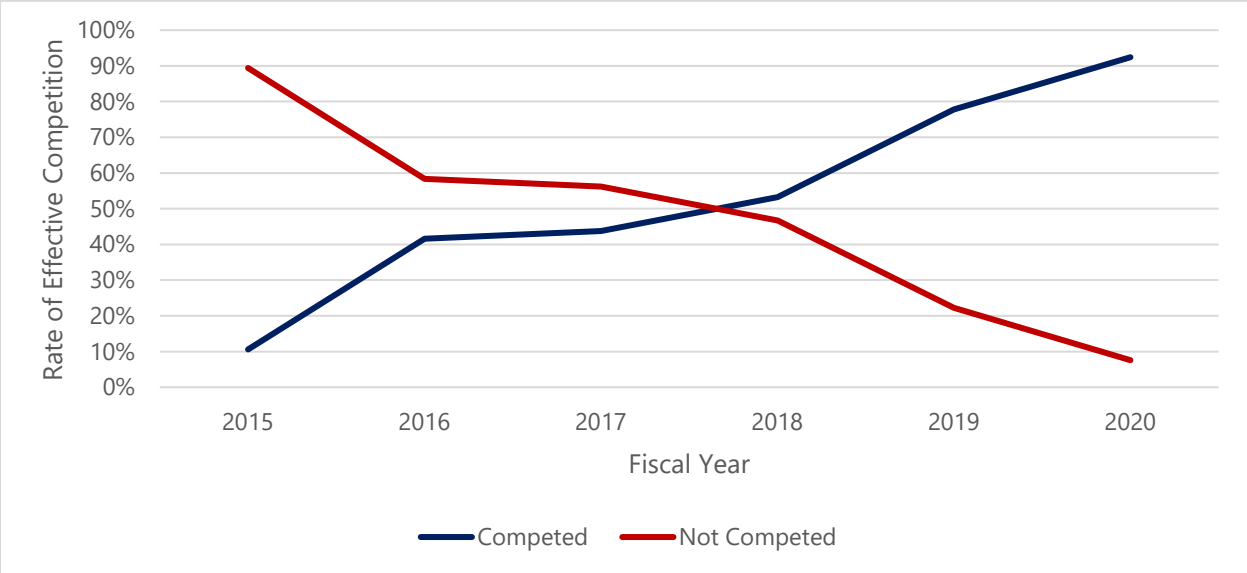

Figure 7. Competition for DoD OTA Obligations, 2015–2020 (Source: FPDS; CSIS analysis)

From Whom is the DoD Buying?

As shown in Figure 8, the rise in the vast majority of DoD OTA obligations in recent years were awarded to vendors categorized as having nontraditional significant participation.[3] Between FY2018 and FY2019, it appeared that there might be an emerging trend showing an increased share of DoD OTA obligations being awarded with cost sharing, but that trend halted in FY2020. In FY2020, defense OTA obligations awarded with cost sharing fell from $1.1 billion to $0.9 billion, a 14% decline, and subsequently fell as a share of DoD OTA obligations from 15% to 6%. Of note, as highlighted in previous CSIS reports (McCormick, 2000), although the data show that nearly 96% of DoD OTA obligations were awarded to nontraditional significant participation, consortia were awarded the majority of OTA obligations in recent years.

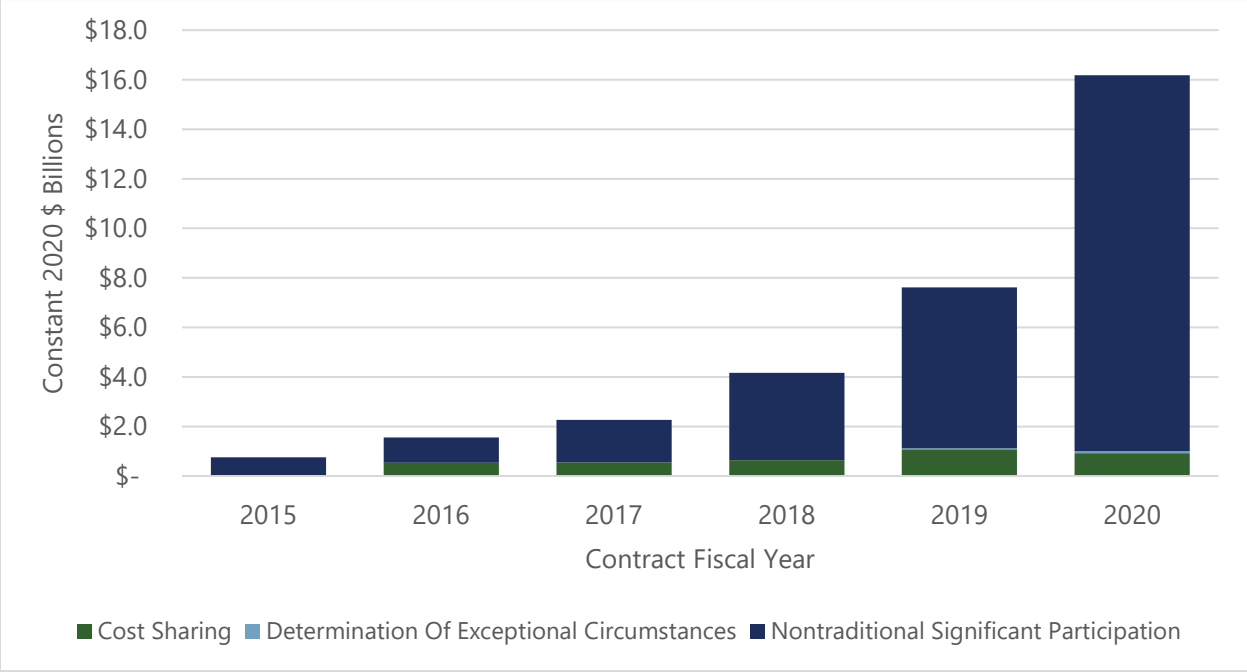

Figure 8. Defense OTA Obligations by Nontraditional Government Contractor Participation, 2015–2019 (Source: FPDS; CSIS analysis)

Conclusion

Defense OTA Obligations Continued to Grow at Staggering Rates

The data show that the rapid growth in the DoD's usage of OTAs did not slowdown in FY2020. DoD OTA obligations increased 113% last year, rising from $7.6 billion in FY2019 to $16.2 billion in FY2020. However, the Sum of Base and All Options Value or potential total contract value of DoD OTA obligations only increased 1% last year, suggesting we could see some slowdown in the same level of year-over-year growth that we've seen in recent years.

R&D Remains the Majority of DoD OTA Obligations

Defense R&D OTA obligations increased 122% between FY2019 and FY2020, compared to the 59% increase and 29% increase in Products and Services respectively.

[3] Nontraditional vendors are often used as a shorthand for major Silicon Valley firms, other commercial technology leaders, or individual startups with breakthrough technology.

Between FY2015 and FY2020, 89% of total DoD OTA obligations were awarded for R&D compared to 8% for Products and 3% for Services.

Mid-Stage R&D Continues Growing While Later-Stage R&D Falls Off

Although there was a slight decline in Advanced Component Development & Prototypes (6.4) OTA obligations in FY2020, those losses were more than offset by the 1,196% increase in Advanced Technology Development (6.3) OTA obligations. However, the later-stages of the weapon-systems development pipeline saw a drop off where the decline in System Development & Demonstration (6.5) was not nearly close to being offset by the relatively small total increase in Operational Systems Development (6.7).

The Army Remains the Predominant User of OTAs Across the DoD

The Army remains the predominant user of OTAs across all of the DoD, but other components, notably the Navy, have made more extensive use of OTAs in recent years than they previously did. Army OTA obligations increased 161% in FY2020 and are up 1,840,416% since FY2015. Navy OTA obligations increased from $0.6 billion in FY2019 to $0.8 billion in FY2020, a 253% increase.

Nontraditional Significant Participation Remains Dominant as Cost-Sharing Declines

For a few years, it seemed that there might be an emerging trend showing that cost-sharing was gaining a foothold for defense OTA obligations. However, this trend halted in FY2020 as OTA obligations awarded with cost sharing declined 14% and fell as a share of OTA obligations to 6% from 14%.

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