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This year our symposium is coupled with an Innovation Summit and takes up the theme of “Accelerating Warfighting Capabilities.”

Although attendees come from many U.S. locations, as well as from some international locales, a large number are from Naval Postgraduate School (NPS) where faculty members and graduate students engage in acquisition-related research. In particular, NPS graduate students are an integral component of the research and dialogue. The Symposium serves an essential part of their graduate learning experience and provides them the opportunity to meet with senior policy-makers, practitioners, and distinguished scholars.

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Is the Military Attracting New Companies? Assessing First-Time Entrants into the Defense Market

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Abstract

Over the last 20+ years, companies outside of the traditional defense industrial base (DIB) increasingly drive innovation in areas critical to national security. This paradigm shift has resulted in the Department of War (DoW) investing billions of dollars into innovation programs, rapid acquisition programs, small business outreach programs, and accelerators (“innovation initiatives” or “initiatives”) that have a stated purpose of making it easier for innovative commercial companies to break into the defense market. In our 2020 Naval Postgraduate School paper, we assessed contract award data from fiscal year (FY) 2010 through FY2019 and determined that, rather than expanding the industrial base, these initiatives primarily benefit entrenched defense contractors. In this paper, we revisited the analysis of new versus existing DoW vendors, using updated datasets from the Federal Procurement Data System (FPDS) between FY2015 and FY2024. We determined that the DoW remains largely inaccessible for nonentrenched contractors, and the majority of first time vendors to the defense market do not purvey commercial technologies. In addition to quantitatively analyzing the types of companies that sell to the DoW, we discuss the underlying issues that have made the defense market so inhospitable towards new entrants. Finally, we offer a series of recommendations for how the DoW can better attract, engage, and retain innovative commercial companies.

Introduction

The Department of War (DoW) faces a dual imperative in managing the defense industrial base (DIB): attracting and retaining suppliers best positioned to meet warfighter needs, while consolidating where strategic efficiency demands it. Dozens of DoW innovation programs, rapid acquisitions programs, small business outreach programs, and accelerators (“innovation programs”) receive billions in funding with the stated objective of accelerating the adoption of innovative new technologies forcewide. Simultaneously, the DoW has shifted to consolidated purchasing strategies for categories like parts supply, field maintenance activities, and performance-based logistics to improve readiness (AAR Corp).

However, the DoW has not maintained a common operating picture of its supplier base. As a result, there has been a lack of useful metrics to track changes in the DIB in general, and to determine the effectiveness of these programs in particular. Our research aimed to fill this gap in two primary ways. First, by using public data to analyze trends in the DIB, the types of



companies entering and exiting the DIB over the last decade, and how new entrants break into the defense market. Secondly, by demonstrating, via our research process, the feasibility of using public data and readily-available tools to build and maintain a detailed view of the DIB. In addition to the policy-focused recommendations we offer, this paper serves as a technical framework for the DoW to implement data-driven processes in its overall management and evaluation of the industrial base.

Sizing the Defense Industrial Base

Before analyzing changes to the composition of the DIB over time, we needed to isolate DoW vendor data by year. To do so, we aggregated contract award data from the Federal Procurement Data System (FPDS), the centralized, real-time database for government procurement transactions. We then filtered the data to isolate contracts funded and awarded by the DoW from fiscal year (FY) 2015 through FY2024.¹ To determine the unique number of companies associated with these contract actions, we grouped each contract action by its associated Unique Entity Identifier (UEI). The resulting 142,890 UEIs became our portfolio for analysis. We then leveraged large language models (LLMs) and generative artificial intelligence (GenAI) to build user-friendly dashboards to analyze and visualize this data.

The Declining DIB

As shown in Figures 1, 2, and 3 the DIB contracted nearly 30% from FY2015 to FY2024, from 67,797 unique vendors to 48,035. Simultaneously, defense spending surged from \$275 billion in FY2015 to \$462 billion in FY2024.

Total Vendor Pool & Defense Obligations, FY2015–FY2024

| FY | Actions | Vendors | Total Obligated |
|--------|---------|---------|-----------------|
| FY2015 | 3.2M | 67,797 | \$274.7B |
| FY2016 | 3.6M | 65,340 | \$295.7B |
| FY2017 | 3.7M | 63,537 | \$323.7B |
| FY2018 | 4.4M | 60,419 | \$357.9B |
| FY2019 | 4.4M | 57,374 | \$393.9B |
| FY2020 | 4M | 53,965 | \$436.2B |
| FY2021 | 4.3M | 52,281 | \$400.0B |
| FY2022 | 4.3M | 48,700 | \$422.4B |
| FY2023 | 4.4M | 48,554 | \$472.3B |
| FY2024 | 4.4M | 48,035 | \$461.7B |

Source: FPDS, defense-funded and awarded. Actions = FPDS transaction rows. Obligations are net.

Figure 1. Sizing the Defense Market Annually

¹ For the purposes of our analysis and to remain consistent, we focus on contract actions funded and awarded by the DoW. There are instances in which DoW may serve as the awarding entity, but funding has come from another department; and/or instances in which the DoW funds something that is awarded by a non-DoW agency. Those instances are not included in our analysis.



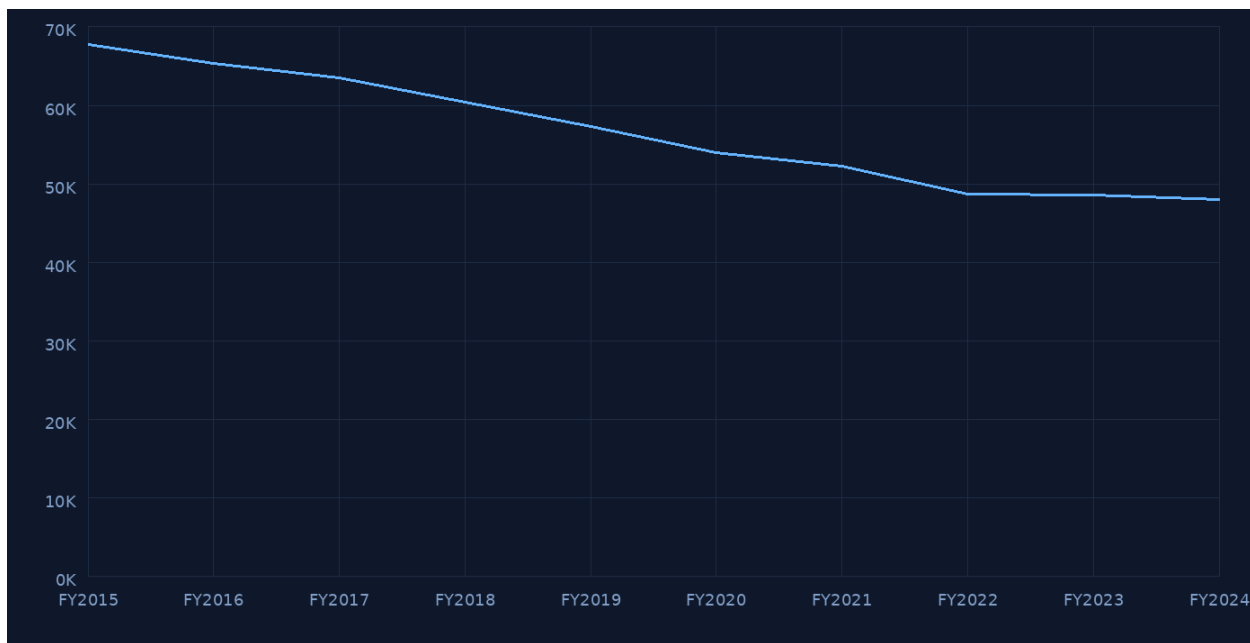


Figure 2. Unique DoW Vendors by Year

Nominal and inflation-adjusted (2015 base year) obligations

| Fiscal Year | Vendors | Contracts | Nominal | Real (2015) |
|-------------|---------|-----------|----------|-------------|
| FY2015 | 67,797 | 659,617 | \$274.7B | \$274.7B |
| FY2016 | 65,340 | 722,077 | \$295.7B | \$292.0B |
| FY2017 | 63,537 | 781,094 | \$323.7B | \$313.0B |
| FY2018 | 60,419 | 3,976,619 | \$357.9B | \$337.9B |
| FY2019 | 57,374 | 4,013,880 | \$393.9B | \$365.2B |
| FY2020 | 53,965 | 3,637,604 | \$436.2B | \$399.4B |
| FY2021 | 52,281 | 3,968,365 | \$400.0B | \$349.9B |
| FY2022 | 48,700 | 3,961,646 | \$422.4B | \$342.1B |
| FY2023 | 48,554 | 4,044,108 | \$472.3B | \$367.4B |
| FY2024 | 48,035 | 4,048,205 | \$461.7B | \$349.3B |

Source: FPDS, defense-funded and awarded. CPI-U deflator (BLS).

Figure 3. Defense Spending, FY2015–FY2024

Research Limitation: Inflated Vendor Count

Large corporations frequently register multiple UEs, each of which our methodology treats as a discrete vendor, in turn inflating our overall count of suppliers. In the new entrants section, we employ a process to flag and consolidate affiliated UEs under a single parent entity. We recommend applying this approach to the full dataset in future research.

Growth for a Few at the Expense of Many

Rather than undermine the results, this research limitation heightens the directional trends revealed in the data. Based on the significant growth in defense spending and concurrent



decline in vendors, a subset of defense contractors have materially expanded their market share over the last decade. These “winners” reap the financial rewards of a consolidating DIB, risk material revenue loss if expansion and diversification efforts succeed, and have outsized resources and influence to direct towards setting and maintaining industrial base policy norms. The majority of these winners are private companies and thus motivated primarily by revenue generation. Some have investment from the public or private capital markets, which means they have an explicit obligation to maximize shareholder value and/or increase profitability. These incentives can be at odds with national security imperatives, particularly in critical or vulnerable areas of the supply chain. These dynamics must inform any detailed analysis of DIB health, including the one that follows.

Composition of the Defense Industrial Base

DIB policy must reflect a balance between the need for strategic consolidation in certain categories, and the need to retain existing vendors and/or introduce new vendors in others. To assess the types of companies that entered and exited the defense market during our analysis period, we began by stratifying the DIB data in each year, across three metrics:

- 1) Count of existing vendors (companies active in the defense market, prior to FY2015)
- 2) Count of new vendors (companies with no prior DoW funding)
- 3) Count of vendors that departed the defense market (companies for which a given fiscal year was its last year as an active supplier to DoW)

From there, we could closely analyze the types of companies in each category.

Stratifying the DIB: Technical Approach

For each unique DoW vendor in our analysis group, we isolated the first recorded defense funded-and-awarded contract action (“DoW funding”), dating back to 1977.² We treated entities with defense funding prior to FY2015 as “existing DoW” vendors. Those with no DoW funding prior to FY2015 were treated as “new” in the fiscal year of their first DoW funded-and-awarded contract action. To calculate “departing” vendors, we looked at the most recent DoW payment each company received. We categorized a company as a “departed vendor” if it received DoW funding at some point during our analysis period, but not in subsequent fiscal years.

Research Limitations & Future Research

For the purposes of this research, we leveraged prime contract award data from FPDS. We recommend future research incorporate subcontract award data from USASpending to capture a more complete picture of the DIB. Additionally, we recognize that a vendor may cease working with the DoW at a point in time and reengage at a future date. Constraints to the timeframes in our analysis may inflate “departing vendor” data, particularly for later fiscal years where vendors may have had only one year of dormancy. The DoW must track these metrics over time, continuously adjusting entry and exit numbers as new data becomes available.

Composition of the DIB: FY2015-FY2024

From FY2015-FY2024, a total of 59,189 vendors entered the DIB for the first time, while 94,849 vendors departed. For every new company that entered the defense market, approximately two vendors left. If this trend continues, DoW stands to lose another 10,000+ net vendors by FY2030.

² FPDS data begins in 1977



Figure 4 shows a breakdown of new, existing, and departing vendors in each year. The “Count of Departing DoW Vendors” column refers to the total number of vendors for whom that fiscal year was their last recorded defense funded-and-awarded contract action during our analysis period. For instance, 11,818 vendors had defense funded-and-awarded contract actions in FY2015, but not FY2016-FY2024. We exclude FY2024 from the departure analysis because we do not incorporate FY2025 data, and therefore cannot confirm how many vendors returned or exited in FY2025.

Total, existing, new, and departing vendors by fiscal year

| Fiscal Year | Total | Existing | New to DoW | Departing |
|-------------|--------|----------|------------|-----------|
| FY2015 | 67,797 | 59,911 | 7,886 | 11,818 |
| FY2016 | 65,340 | 57,914 | 7,426 | 11,340 |
| FY2017 | 63,537 | 56,534 | 7,003 | 11,359 |
| FY2018 | 60,419 | 54,052 | 6,367 | 10,835 |
| FY2019 | 57,374 | 51,609 | 5,765 | 10,438 |
| FY2020 | 53,965 | 48,267 | 5,698 | 9,432 |
| FY2021 | 52,281 | 47,135 | 5,146 | 9,709 |
| FY2022 | 48,700 | 44,606 | 4,094 | 8,682 |
| FY2023 | 48,554 | 43,833 | 4,721 | 11,236 |
| FY2024 | 48,035 | 42,955 | 5,080 | — |

New to DoW = first defense-funded action in that FY. FY2024 departing blank by design.

Figure 4. Stratifying the DIB

Who Left? Oldtimers vs. Newcomers

Stratifying the DIB in this way provided meaningful summary statistics about the defense market in general, and also allowed for a more nuanced analysis of DIB participants by type. We started by closely analyzing the features of departing companies, beginning with their tenure in the defense market. For each departing company, we joined its earliest DoW funding action from FPDS, which dates back to 1977, and compared it to the date of its last DoW award. We then split departed vendors into two groups: 1) “single-year” vendors, active in the defense market for only one year; and 2) “multi-year” vendors that had sustained activity in the defense market before departing.

As shown in Figure 5, approximately 20% of departing companies during our analysis period were single-year vendors, whereas 80% of departing companies were multi-year firms. This breakdown highlights two points: a sizable share of companies enter the defense market but do not stay, which will serve as an important consideration during our analysis of new entrants; and the majority of departing firms are legacy providers to the DoW.



Figure 5: Exiting Firms — Single-Year vs Multi-Year

Vendors whose last defense action was in the given fiscal year

| Last Active FY | Total | Single - Year | Multi - Year |
|----------------|--------|---------------|--------------|
| FY2015 | 11,818 | 2,638 (22%) | 9,180 (78%) |
| FY2016 | 11,340 | 2,449 (22%) | 8,891 (78%) |
| FY2017 | 11,359 | 2,445 (22%) | 8,914 (78%) |
| FY2018 | 10,835 | 2,280 (21%) | 8,555 (79%) |
| FY2019 | 10,438 | 1,798 (17%) | 8,640 (83%) |
| FY2020 | 9,432 | 1,879 (20%) | 7,553 (80%) |
| FY2021 | 9,709 | 1,748 (18%) | 7,961 (82%) |
| FY2022 | 8,682 | 1,409 (16%) | 7,273 (84%) |
| FY2023 | 11,236 | 1,980 (18%) | 9,256 (82%) |

Figure 5. Exiting Firms—Single-Year vs. Multi-Year

What Did Departing Firms Sell?

Particularly in the context of these long-tenured vendors, the implications of attrition depend heavily on what goods/services departing firms had provided. Simply put, losing pencil manufacturers is of different consequence than losing manufacturers of specialized aerospace components.

To better understand the types of companies that departed, we explored the entirety of the contract data associated with departed vendors dating back to 1977. Specifically, we looked at companies’ associated North American Industry Classification System (NAICS) codes and Product Service Codes (PSCs). A NAICS code is a label used by the government to classify the type of work a firm does, and a PSC is a code used by the government to describe the product or service being purchased via a specific contract. Of note, a single departed vendor can be associated with multiple PSCs and NAICS.

Figure 6 shows the top 15 industries associated with departing vendors, based on NAICS code. Figures 7 and 8 detail the top 15 PSCs associated with departing vendors. The majority of departing vendors by PSC were hotels, which also favored heavily in the NAICS data. Attrition in lodging is unlikely to portend supply chain vulnerability. However, the largest share of departing vendors by NAICS—about 6% of all companies that exited—were associated with NAICS 541712 and 541715, both of which cover “Research and Development (R&D) in the Physical, Engineering, and Life Sciences (Except Nanotechnology and Biotechnology)” (U.S. Census Bureau). Like all sectors, some churn among R&D firms should be expected. However, the DoW must monitor this supplier erosion carefully to understand what causes these firms to leave. Do their technologies fail to meet mission needs, or are they casualties of the government’s burdensome bureaucracy?



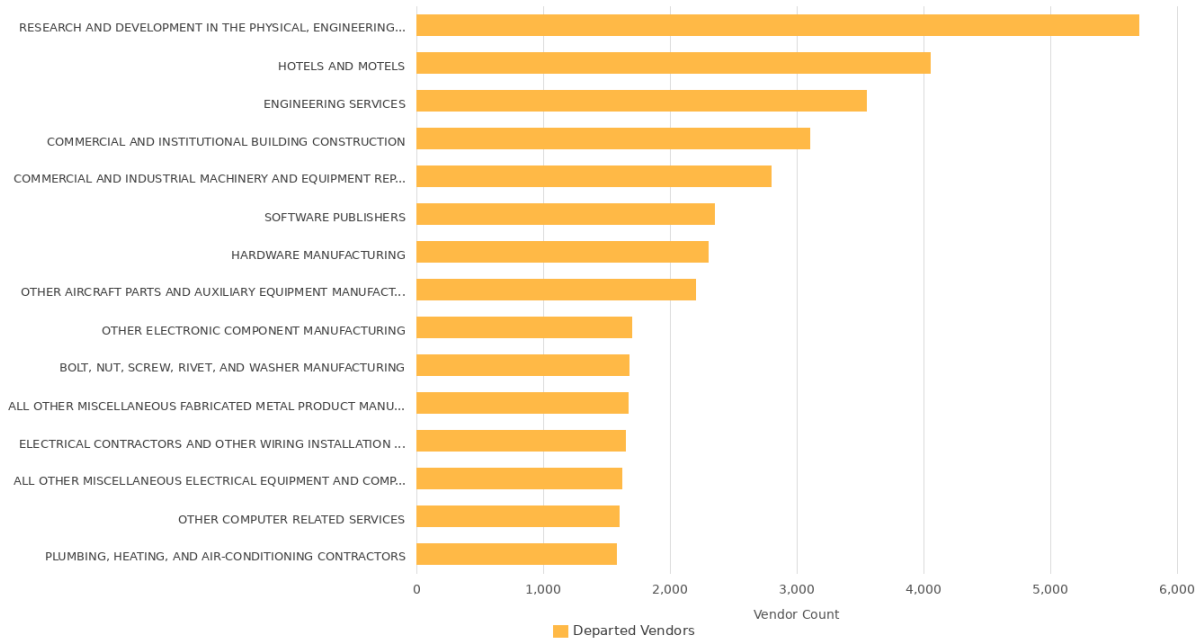


Figure 6. Top 15 NAICS Industries by Departed Vendor Count

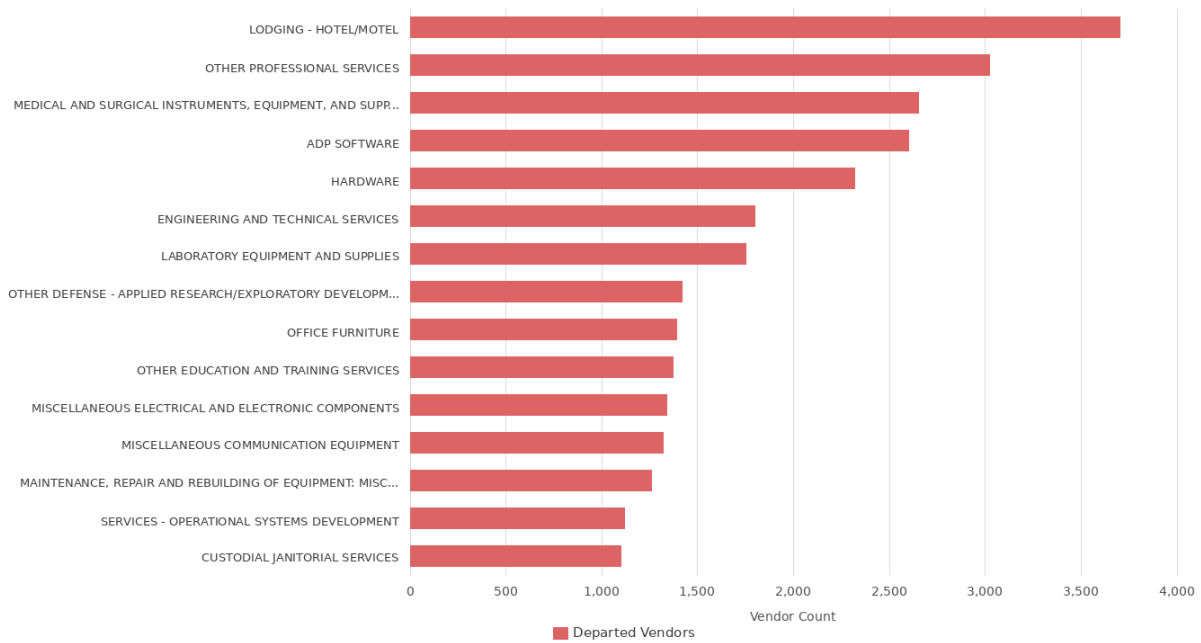


Figure 7. Top 15 Products/Services Represented by Departing Firms, by PSC



Most common categories among vendors who left the defense market

| PSC | Description | Vendors | Obligated |
|------|--------------------------------------------|---------|------------|
| V231 | LODGING - HOTEL/MOTEL | 3,707 | \$702.1M |
| R499 | OTHER PROFESSIONAL SERVICES | 3,018 | \$2,675.8M |
| 6515 | MEDICAL AND SURGICAL INSTRUMENTS, EQUIPMEN | 2,656 | \$2,971.3M |
| 7030 | ADP SOFTWARE | 2,623 | \$856.9M |
| 5340 | HARDWARE | 2,343 | \$191.9M |
| R425 | ENGINEERING AND TECHNICAL SERVICES | 1,783 | \$3,462.4M |
| 6640 | LABORATORY EQUIPMENT AND SUPPLIES | 1,702 | \$776.1M |
| AD92 | OTHER DEFENSE - APPLIED RESEARCH/EXPLORATO | 1,416 | \$1,120.6M |
| 7110 | OFFICE FURNITURE | 1,387 | \$339.2M |
| U099 | OTHER EDUCATION AND TRAINING SERVICES | 1,374 | \$418.3M |
| 5999 | MISCELLANEOUS ELECTRICAL AND ELECTRONIC CO | 1,337 | \$155.8M |
| 5895 | MISCELLANEOUS COMMUNICATION EQUIPMENT | 1,311 | \$362.5M |
| J099 | MAINTENANCE, REPAIR AND REBUILDING OF EQUI | 1,244 | \$253.3M |
| AD25 | SERVICES - OPERATIONAL SYSTEMS DEVELOPMENT | 1,155 | \$10.0M |
| Z2JZ | REPAIR OR ALTERATION OF MISCELLANEOUS BUIL | 1,133 | \$2,652.5M |

Figure 8. Top 15 PSCs—Departed Vendors

Looking at the PSC data, losses in categories like Professional Services, Medical Instruments/Equipment, Automatic Data Processing (ADP) Software, and Hardware, could also be consequential. In Figure 8, the column “Total Obligations” provides the total defense funding captured by departing vendors in a given PSC between FY2015-FY2024. For example, the 2,656 suppliers of Medical/Surgical Equipment that departed the DIB between FY2015-FY2024 received more than \$2.9 billion in defense funding during that time.

For high-value losses such as Medical/Surgical Equipment and ADP Software, the DoW must understand what suppliers replaced those departed vendors; if and how the outflow of suppliers strained the remaining industrial base; and why those suppliers left. Attention must also be paid to the 2,343 “Hardware” vendors that departed—purveyors of literal nuts and bolts—that comprised only \$192 million in obligations. In other words, thousands of suppliers accounting for relatively low contract values ceased operating in the defense market. To what extent did they provide speciality parts? Do they remain active in the commercial market, or have they shuttered entirely? Were they driven out of the DoW as a result of contract bundling by the Defense Logistics Agency (DLA)? If so, did forced consolidation produce material gains in efficiency or cost for DoW?

Context is Key: Qualitative Research Needs

These questions highlight an important analytical limitation: the data cannot tell us why a company exits the DIB. Potential factors range from uncertainty in defense spending, ballooning compliance costs, and the comparative ease of working with commercial customers to considerations entirely unrelated to the dynamics of the defense market (Serbu). Closing this knowledge gap will require qualitative insights that no dataset alone can provide. However,



publicly available data, LLMs, and GenAI afford new ability to manage the quantitative aspects of the DIB. The DoW should leverage these tools for efficiency and shift workforce focus toward collecting contextual information directly from suppliers.

New Entrants: Emphasis vs. Outcome

While attrition data points to sustained erosion, the DoW's response has focused less on reducing supplier outflows than on attracting new participants. In 2014, it announced a strategic imperative to draw innovative commercial companies into the defense market (Hummel and Wurster). This shift reflected a growing recognition that commercial innovation with defense applications was outpacing the traditional DIB. In 2020, the COVID pandemic exposed the DoW to latent supply chain vulnerabilities and the consequences of decades of consolidation and off-shoring.

Taken together, these conditions prompted the DoW to direct billions over the last decade into new and legacy initiatives touted as opportunities to revitalize the DIB. Each of these programs shares a common premise: simplifying aspects of the defense procurement process will attract innovative commercial companies into the defense market. If effective, then, these strategies should result in more first-time vendors entering the DIB every year. However, as shown in Figure 9, the count of new vendors annually has remained stable at best. Additionally, as shown in Figure 10, new entrants' share of contract funding has remained economically marginal.

Count and share of annual vendor pool new to DoW

| FY | Total Vendors | New to DoW | % New |
|------|---------------|------------|-------|
| 2015 | 67,797 | 7,886 | 11.6% |
| 2016 | 65,340 | 7,426 | 11.4% |
| 2017 | 63,537 | 7,003 | 11.0% |
| 2018 | 60,419 | 6,367 | 10.5% |
| 2019 | 57,374 | 5,765 | 10.0% |
| 2020 | 53,965 | 5,698 | 10.6% |
| 2021 | 52,281 | 5,146 | 9.8% |
| 2022 | 48,700 | 4,094 | 8.4% |
| 2023 | 48,554 | 4,721 | 9.7% |
| 2024 | 48,035 | 5,080 | 10.6% |

Figure 9. New Vendors Entering the Defense Market



Share of defense spending going to new-to-DoW entrants

| FY | Total DoW | New Vendor \$ | % to New |
|------|-----------|---------------|----------|
| 2015 | \$274.7B | \$3.1B | 1.1% |
| 2016 | \$295.7B | \$3.1B | 1.1% |
| 2017 | \$323.7B | \$4.0B | 1.2% |
| 2018 | \$357.9B | \$5.3B | 1.5% |
| 2019 | \$393.9B | \$9.2B | 2.3% |
| 2020 | \$436.2B | \$6.3B | 1.4% |
| 2021 | \$400.0B | \$11.9B | 3.0% |
| 2022 | \$422.4B | \$9.8B | 2.3% |
| 2023 | \$472.3B | \$4.6B | 1.0% |
| 2024 | \$461.7B | \$6.0B | 1.3% |

Figure 10. Obligations to New Defense Vendors

New Vendor Inflation via Affiliation

Our methodology treats each first-time UEI as a new vendor, without accounting for instances in which the “new” entity actually represents a joint venture or teaming arrangement between existing defense contractors. To assess the potential impact of these affiliations on our count of new entrants, we built a process to identify UEIs classified as “new” that likely represent a reconstitution of one or more existing DoW contractors.

First, we built a logic chain to detect potential joint ventures (JVs), parent-subsidary relationships, and instances in which multiple vendors share the same domain name. We analyzed vendor names to identify mentions of “Joint Venture,” “JV,” “Consortium,” or “Teaming,” excluding instances where these terms may have a different association. For instance, the process identifies “AECOM-Baker JV” and “3T Federal-BBIX JV LLC” as joint ventures, but rejects “JVS Engineering,” as “JVS” is not assumed to be an abbreviation of joint venture. We extracted the constituent party names from joint venture vendor names to identify the underlying entities. Next we examined the FPDS field for “parent UEI” to detect potential subsidiaries of larger entities. For new entrants with an associated parent UEI, we flagged potential subsidiary relationships where the parent entity differed from the new entrant. Lastly we looked at [SAM.gov](https://sam.gov) registration data via company CAGE codes to detect if two different vendors shared a company website. If a “new” vendor had the same website as an existing defense contractor—excluding common hotel chains and other false positives—we implied a common connection. As shown in Figure 11, approximately 14% of companies we identified as new entrants had an affiliation signal, suggesting they are likely extensions of existing DoW contractors.



Joint ventures, subsidiaries, and shared-domain indicators

| Type | Count | % of New - to - DoW |
|---------------------------------|--------|---------------------|
| Joint Venture (name match) | 1,579 | 2.7% |
| Subsidiary (parent UEI differs) | 5,849 | 9.9% |
| Shared Website Domain Only | 675 | 1.1% |
| Any Affiliation Signal | 8,103 | 13.7% |
| Presumed Independent | 51,083 | 86.3% |

Figure 11. Affiliation Signals Among New Defense Entrants

The presence of affiliations in the new vendor data reflects a larger DIB trend: entrenched entities find ways to expand their market share over time, and spinoffs/partnerships are one such mechanism. For example, partnering with small, woman-owned, or disadvantaged businesses may enable them to qualify for contracting opportunities otherwise unavailable to them. They are not abusing the system; they are using it to their advantage. But to the extent new suppliers are simply amalgamations of existing players, the objectives of industrial base growth and diversification have not been met—the DoW continues to depend on the same limited pool of suppliers, and innovative commercial companies remain out of reach. When examining how policies affect the composition of the DIB, the DoW must flag affiliated entities for further analysis.

Who Entered?

Given the DoW’s stated priority of attracting innovative companies into the DIB, we next sought to examine whether the companies that entered the defense market reflected that ambition. Although qualifying a company as “innovative” is highly subjective, we leveraged available data to develop a meaningful proxy. We assigned an “innovation score,” from 0-10, to each new vendor using objective signals from their entry-year DoW contract actions:

- DoW SBIR/STTR contract action(s): +3 points
- Other Transaction Agreement (OTA) prototype: +2 points
- OTA production: +1 point
- R&D PSC: +2
- Commercial product or service flag: +1
- Small business designation: +1
- IT/Software PSC: +1

A vendor scoring 7+ had multiple strong innovation signals; 3-6 reflected a moderate score; and 0-2 signaled a traditional/non-innovative supplier. Using this scoring methodology, we found that 83% of new entrants during our analysis period were “traditional,” rather than innovative suppliers. Figure 12 provides a breakdown of new entrants by innovation score annually. These results are a damning indictment of more than a decade of policy explicitly aimed at creating pathways for innovative commercial companies to break into the defense market.



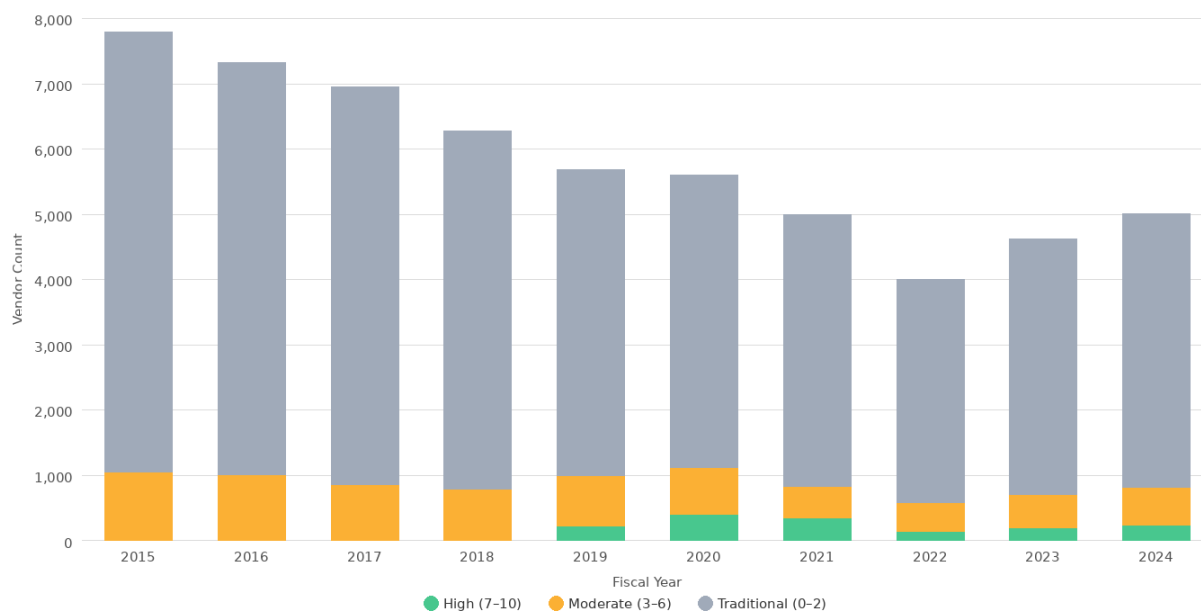


Figure 12. Innovativeness Among New Vendors, Annually

Innovation Programs

New entrants received higher points for leveraging SBIR/STTR and OTAs because both share a stated purpose of stimulating defense-focused R&D and enabling commercial innovators to engage with the DoW without the burdens of the traditional contracting process. In other words, they serve as a theoretical marker for innovativeness. Given that so few new entrants scored highly suggested a low incidence of SBIR/STTR and OTAs among them. For a closer look, we isolated each new entrants’ initial contracting action and, using FPDS data, categorized it as a SBIR/STTR, Other Transaction (OT), or traditional contract. As shown in Figure 13, the vast majority of new vendors enter the DIB via traditional procurement contracts.

OTs, which would include DIU—another innovation program marketed as a way for commercial innovators to break into the defense market—account for a negligible share of new entrants’ initial contracts. For the majority of our analysis period, fewer than 10% of new entrants leveraged DoW SBIR/STTR to break into the defense market in a given year. Gains in new entrants via SBIR/STTR between FY2019-FY2021 likely attribute to the launch of “Open Topics” in the Air Force SBIR/STTR program. The Open Topic model allows companies to submit a simplified proposal that explains how their solution could solve a defense-related problem, as opposed to the traditional SBIR/STTR process which requires companies to respond to prescriptive topics. The subsequent reversal in new vendors suggests that these mechanisms either lost efficacy or became another tool for incumbents to expand their market share. In short, most new entrants are not innovative companies, and initiatives marketed as on-ramps for innovative commercial firms play a minor role in expanding the industrial base.



First procurement action, FY2015–FY2024. Categories are mutually exclusive.

| FY | New Vendors | Contract | SBIR/STTR | OTA |
|------|-------------|---------------|-------------|-----------|
| 2015 | 7,886 | 7,748 (98.2%) | 133 (1.7%) | 5 (0.1%) |
| 2016 | 7,426 | 7,286 (98.1%) | 130 (1.8%) | 10 (0.1%) |
| 2017 | 7,003 | 6,803 (97.1%) | 157 (2.2%) | 43 (0.6%) |
| 2018 | 6,367 | 6,194 (97.3%) | 143 (2.2%) | 30 (0.5%) |
| 2019 | 5,765 | 5,168 (89.6%) | 512 (8.9%) | 85 (1.5%) |
| 2020 | 5,698 | 5,006 (87.9%) | 593 (10.4%) | 99 (1.7%) |
| 2021 | 5,146 | 4,559 (88.6%) | 511 (9.9%) | 76 (1.5%) |
| 2022 | 4,094 | 3,721 (90.9%) | 303 (7.4%) | 70 (1.7%) |
| 2023 | 4,721 | 4,268 (90.4%) | 367 (7.8%) | 86 (1.8%) |
| 2024 | 5,080 | 4,587 (90.3%) | 410 (8.1%) | 83 (1.6%) |

Figure 13. Entry Path of New Defense Vendors

New Entrants & Retention

Assessing the effectiveness of policies designed to expand the industrial base requires not only evaluating how well they attract new vendors, but also how new entrants perform in the DIB over time. To that end, we next looked at the tenure of new entrants in the defense market. We joined new entrants’ contract actions for the entirety of our analysis period and isolated the most recent DoW funding action for each firm. We then bucketed new entrants into six categories:

- 1) Companies that lasted in the defense market for less than one year (they had their first and last DoW contract action in the same 12-month period)
- 2) New entrants that lasted one year in the defense market, then left
- 3) New entrants that lasted two years in the defense market, then left
- 4) New entrants that worked with DoW for 3-5 years, then left
- 5) New entrants that worked with DoW for 6+ years, then left
- 6) New entrants that remained active in the defense market as of FY2024

As shown in Figure 14, nearly 1/3 of new entrants survived less than 12 months in the defense market, and more than 43% departed after one year. Based on these findings, a significant share of new vendors do not become meaningful contributors to the DIB.

Analyzing PSCs for single-year vendors, we found that approximately 15% associated with hotels for overnight travel—instances where the DoW stayed at a new hotel once during a 12-month period, and did not return. The remaining single-year vendors cross-cut industries, including R&D, professional services, and hardware. Further research is needed to understand why so many new vendors exit the defense market within their first year. However, DoW leaders and policymakers often lament the “Valley of Death”—a byproduct of bureaucracy in the defense acquisition system that prevents companies from successfully converting initial R&D/prototype funding into DoW programs of record (Landreth). Our analysis of new entrants’ tenure provides



an empirical framework for calculating the Valley of Death in real terms. It also reinforces the need for the DoW to improve efforts to both attract innovative commercial technologies into the DIB, as well as to retain—and maximally leverage—the most promising among them.

Figure 14: Tenure of New Entrants in Defense Market

| New Entrant Status | Count, New Entrants | % Total New Entrants |
|-------------------------------------------------------|---------------------|----------------------|
| Entered & Exited in the Same Year (Active <12 months) | 18,612 | 31% |
| Exited After 1 Year | 6,835 | 12% |
| Survived 2 Years Then Left | 3,768 | 6% |
| Survived 3-5 Years Then Left | 6,506 | 11% |
| Survived 6+ Years Then Left | 1,960 | 3% |
| Active as of 2024 | 21,508 | 36% |

Figure 14. Tenure of New Entrants in Defense Market

Conclusions & Recommendations

The DIB is in crisis. With each passing year, defense spending skyrockets while the contractor pool shrinks. For every new company that enters the defense market, two companies leave. Given the range of products and services affected by attrition, these trends are less likely the result of strategic consolidation and more likely a consequence of rising compliance costs, slow acquisition cycles, and budget uncertainty. As these regulatory burdens force smaller firms out of the DIB, they enable the largest defense contractors—that can absorb them easily—to expand their market share. The concentration that follows leaves the DoW dangerously exposed, with few alternatives if and when a critical supplier faces production issues or raises national security concerns.

Despite billions in funding for industrial base expansion, the DoW has achieved no meaningful net growth in new entrants over the past decade. Innovation initiatives do not attract new vendors into the defense market, and the majority of first-time DIB suppliers are not innovative commercial companies. Efforts to support transition have likewise failed: more than 40% of new entrants leave the defense market within one year.

The health of the industrial base is a matter of national security, and the DoW must treat the collapsing DIB as a real-time threat. The Office of the Secretary of War (OSW) must maintain a real-time common operating picture of the DIB, continuously monitoring new entrants, attrition, and market consolidation. Bureaucratic fluency is not a warfighting advantage, thus the DoW must require agencies to meet sector-specific goals for contracting with new and existing suppliers. DoW personnel should engage with suppliers directly, so that impediments to achieving these goals can be identified and mitigated immediately.

The current trends are reversible—but only with new incentives, a deliberate reallocation of resources, and committed leadership willing to resist the lobbying campaigns of large defense contractors.



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