



U.S. Department of Defense Contract Spending and the Supporting Industrial Base, 2000–2012

A Report of the CSIS National Security Program on Industry and Resources



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Executive Summary

Over the past decade, the Center for Strategic and International Studies (CSIS) has been analyzing and reporting on contract spending for national security and across the federal government. This report analyzes contracting for products, services, and research and development (R&D) by the U.S. Department of Defense (DoD) and its key components. It provides an in-depth look at the trends currently driving nearly 70 percent of all federal contract dollars throughout the growth and subsequent inflection of defense spending of the 2000–2012 study period. This third edition of the DoD report updates reports from previous years and provides greater depth of analysis. Rather than primarily reporting the changes across dozens of graphs, the analysis lists key factors behind growth or decline. However, the ability to dive deeply into raw data is as important to many CSIS readers. To meet that need, CSIS has significantly upgraded the project website (<http://www.csis.org/NSPIR/DoD>) to include the graphs and table contained within this report as well as variants by defense component and by product/service area. This website will be a living repository. Throughout the year, the study team will publish and update the data underlying shorter publications on key issues relevant to the defense-industrial base.

The first chapter of the report describes the methodology used, including the study team's sources and methods as well as changes in techniques from prior reports. The second chapter analyzes eight key facets of the defense industrial base:

- Defense component
- Product/service area
- Competition
- Pricing mechanism
- Contract vehicle
- Contract size
- Vendor size
- Top 20 vendors

The third chapter, Policy Implications, is new to CSIS defense contracting reports and gives detailed answers to current policy questions.

Overall Defense Contracting Trends

The overall Department of Defense (DoD) budget began to drop in 2011, but 2012 marked the third year of decline for DoD service contract obligations (-5.2 percent 3-year compound annual growth rate, or CAGR) and the fourth year for all other contracts (-4.1 percent 4-year CAGR). This decline leaves contract obligations at 55 percent of total DoD outlays, well below the 62 percent share in 2000 and the 69 percent share in 2008. Nonetheless, in 2012 constant dollar terms, the \$361 billion spent on contracts in FY2012 exceeds the defense contract obligations from any year between 2000 and 2006.

The changes over recent years have not been evenly distributed. The share of DoD contract obligations awarded by the Army rose from 28 percent in 2000 to a peak of 40 percent in 2008, as the

wars in Iraq and Afghanistan drove spending priorities. As the U.S. has drawn down forces, Army contract obligations declined at nearly three times the rate of overall DoD, leaving the Army with a 30 percent share in 2012. The Defense Logistics Agency (DLA) and the category of “Other DoD” components (which includes all contracting entities within DoD that are not covered by the other four component categories, such as the Missile Defense Agency (MDA), TRICARE, and US Transportation Command (USTRANSCOM)) also rose and have retained a notably higher share of contract obligations even during drawdown. By comparison, the Navy share of DoD obligations fell through 2005 and then stayed somewhat steady, although 2012 saw a sharp decline from 2011 (-11 percent). The Air Force share grew by 5 percent from 2011 to 2012, after losing share over the previous 10 years.

When looking at the three categories of Products, Services, and R&D, the Products category rose from 46 percent in 2000 to a high of 51 percent in 2008, before falling back to 45 percent by 2010. The share of defense contract obligations awarded for Services hovered between 39 percent and 42 percent between 2000 and 2008, but rose to a high of 44 percent in 2010. R&D, which accounted for a high of 15 percent of defense contract obligations in 2002, has declined steadily since, to a low of 10 percent in 2011 and 2012. This drop in R&D continued in both the 2009–2012 (-7.9 percent 3-year CAGR) and 2011–2012 period (-10 percent) at a rate roughly twice the overall DoD contract obligation decline. The decline in R&D spending is analyzed further in Chapter 3.

This report analyzes the level and intensity of competition in DoD contracts. The share of defense contract obligations awarded without competition rose from 38 percent in 2000 to 42 percent in 2012. The share of defense contract obligations awarded after competition with two offers has declined steadily, from 25 percent in 2000 to 14 percent in 2012, due in large part to an increase in the number of competitive offers. Overall, the share of contract obligations awarded after competition with three or more offers has risen from 25 percent in 2000 to 34 percent in 2012, with the vast majority of that rise attributable to cases with five or more offers. See Chapter 3 for more details.

Between 2011 and 2012, contract obligations awarded without competition declined more slowly than overall defense (-2 percent), rising as a share of overall defense contract obligations from 41 percent to 42 percent. In that year, the share of competed contract dollars awarded after a single offer declined sharply (-22 percent), in line with current policy guidance, falling from 10 percent of contract obligations to 8 percent. Both competition with two offers (-9 percent) and competition with three or four offers (-14 percent) declined more rapidly than did overall defense. Competition with five or more offers actually saw growth (5 percent) even as overall defense declined, rising as a share of overall defense from 19 percent to 21 percent.

The fluctuations in product/service areas, components, and competition have not resulted in large changes in the contract characteristic called Pricing Mechanism. The predominant contract pricing mechanism has been fixed price contracts, accounting for 60 percent or more in every year during the period. The share of contract obligations awarded under cost reimbursement contract types was between 28 percent and 31 percent from 2000–2006. It declined in 2009 and has since rebounded to previous levels. There was a procedural rise in both fixed price and cost reimbursement contracts in the 2009–2012 period due to improved reporting. However, between 2011 and 2012, there was a small but real increase in the share of fixed price contract types.

This report also assesses DoD usage of contracting vehicles. The use of definitive contracts, which accounted for 59 percent of defense contract obligations in 2000, has declined steadily since, to a low of 42 percent in 2010. By contrast, there has been significant growth in various types of indefinite delivery contracts (IDCs), going from 37 percent in 2000 to a high of 55 percent in 2010, although single-award IDCs did decline in absolute terms from 2008 to 2012.

The report looks also at contracts by size or dollar value. The rise of indefinite delivery contracts (noted in the previous paragraph) has coincided with a move to larger contracts. The share of defense contract obligations awarded in contracts of less than \$1 million has gradually declined, from 20 percent in 2000 to 14 percent in 2012. The share of obligations awarded for contracts between \$1 million and \$25 million declined from 37 percent in 2000 to 31 percent in 2008, and has fluctuated between 32 percent and 34 percent since. The share awarded for contracts between \$25 million and \$500 million have fluctuated between 30 percent and 35 percent throughout the period. Contracts \$500 million and greater grew from an 11 percent share in 2000 to a 22 percent share of contract obligations by 2012, even seeing slight growth (3 percent) in real terms from 2011 to 2012, despite declines in overall DoD contract obligations.

Contract analysis needs to reflect the overall defense industrial base, including vendors for service contracts. The report shows that the shares of defense contract obligations awarded to the categories of Vendor Size have been steady, whether spending was increasing or decreasing. Small vendors have received between 15 percent and 16 percent of defense contract obligations in every year during the period. Medium vendors have received between 24 percent and 26 percent in all but two years. Large vendors received around a quarter of defense contract obligations from 2000–2003, but have received between 29 percent and 32 percent in all but one year since. The category of “Big 6” defense vendors has shown the most volatility, varying within four percentage points of a 30 percent share throughout the period. This held true from 2011 to 2012 when contract obligations awarded to the Big 6 declined markedly (-9 percent).

When comparing the top 20 vendors in 2002 and 2012, there has been a moderate broadening of the defense industrial base. In 2002, the top 5 defense vendors accounted for 34 percent of total defense contract obligations versus 27 percent in 2012. Similarly, the top 20 accounted for 47 percent of total defense contract obligations in 2002, compared to 43 percent in 2012. The top 5 defense vendors are unchanged between 2002 and 2012, although their order has shifted. The most notable change in 2012 is the addition of three fuel supply-related vendors: Royal Dutch Shell, Supreme Group, and BP. See Chapter 2 and the website for more details.

Policy Questions and Implications

This edition of the CSIS report on DoD contracting trends provides more policy analysis than previous reports. Some of the highlights are summarized below. Please see Chapter 3 for more details.

What are the specific sources of the decline in DoD R&D contract obligations?

The declines in DoD R&D contract obligations since 2009 are tied to the cancellation or maturation from R&D to procurement account funding of specific Major Defense Acquisition Programs (MDAPs). At least through 2012, cancellations and maturation of programs have allowed DoD to prioritize certain R&D

projects rather than instituting broad-based cuts. These reductions have not been replaced with a proportional amount of new R&D spending, as budget pressures impact the modernization accounts (including R&D).

What is responsible for the rise in the share of R&D contract obligations awarded under fixed price contract types?

The rise in fixed price R&D is led by the Air Force and to a lesser extent the Army and Navy. Programs making heavy use of fixed price contract include Wideband Gapfiller, the Missile Defense Agency, E-2C Advanced Hawkeye, and \$450 million of Army defense-related applied/exploratory research.

How successfully have the different DoD components implemented guidance to increase competition in contracting?

Overall within DoD, the share of contract obligations awarded without competition has risen steadily since 2005, from 36 percent to a new high of 42 percent in 2012. DLA has the lowest share of contracts without competition (16 percent in 2012) followed by the category of “Other DoD” (28 percent), although in both cases this represents a reduction in competition versus their prior bests. The Army has been remarkably consistent and kept contract awards without competition to 36 percent in 2012 despite an overall decline in contract obligations. Navy contract awards without competition have been consistently higher, and surged to a new high in 2012 (54 percent). The Air Force in 2012 is even higher (63 percent).

How do rates of effective competition vary by size of contract?

Larger contracts typically have smaller shares of effective competition (which CSIS defines as competition with two or more offers). Across the 2000–2012 period, the average rates of effective competition for contracts between \$100 million and \$500 million and for contracts \$500 million and greater are nearly identical (42 percent and 41 percent, respectively.) The rate of effective competition for contracts with a value of \$500 million or greater has fluctuated greatly throughout the period since 2000, from a low of 33 percent in 2001 to a high of 55 percent in 2005. Nonetheless, their rate of effective competition is trending downward, with only 37 percent in 2011 and 2012, compared to 49 percent (in 2012) for DoD overall.

Final Thoughts

Contract data analysis presents trends that support and sustain policy guidance in some cases and run counter to such guidance in other cases. The CSIS team believes that this represents an opportunity for additional analysis in future reports, and the next edition of this report will expand on these opportunities.

Chapter 1: Methodology of the Study

The Center for Strategic and International Studies (CSIS) has studied and reported on federal and national security contract spending for a decade. This chapter describes the methodology used in this report.

For the purpose of this study, the U.S. defense industrial base is defined as all vendors and individuals that are awarded contracts by the U.S. Department of Defense (DoD). This includes contracts for products, services, and research and development (R&D), classified with the federal supply classification (FSC) codes (also referred to as product or service codes, or PSCs).

Most of the data used for this study were derived from the Federal Procurement Data System—Next Generation (FPDS). This government database covers all federal contract actions that have been awarded during a particular year, although this study is limited to those contracts managed by DoD between fiscal years 2000 and 2012. Notably, this approach excludes some contracts funded by DoD but managed by other agencies, because this report focuses on the acquisition decisions of DoD rather than its budget. Because of the limitations of the online FPDS database, the study team has traditionally built a series of annual databases to make the challenge of FPDS's sheer size manageable. This year, the team upgraded its tools and created a single database with all 35 million rows of federal data and all of the data fields available through USAspending.gov.

Inherent Restrictions of FPDS

Since the analysis presented in this report relies almost exclusively on FPDS data, it incurs four notable restrictions. First, contracts awarded as part of supplemental packages are not separately classified in FPDS. As a result, we do not distinguish between contracts funded by base budgets and those funded by supplemental appropriations. Second, FPDS includes only prime contracts, and, as discussed in the Policy Implications chapter, the separate subcontract database is radically incomplete. Therefore, only prime contract data are included in this report. Third, reporting regulations require that only unclassified contracts be included in FPDS. We interpret this to mean that few, if any, classified contracts are in the database. For DoD, this omits a substantial amount of total contract spending, perhaps as much as 10 percent. Such omissions are probably most noticeable in R&D contracts. Finally, classifications of contracts differ between FPDS and individual vendors. For example, some contracts that a vendor may consider as services are labeled as products in FPDS, and vice versa. This may cause some discrepancies between vendors' reports and those of the federal government.

Constant Dollars and Fiscal Years

All dollar amounts in this report are reported as constant fiscal year 2012 dollars unless specifically noted otherwise. Dollar amounts for all years are deflated by the implicit GDP deflator calculated by the U.S. Bureau of Economic Analysis, with FY 2012 as the base year. This measurement allows the CSIS team to more accurately compare and analyze changes in spending across time. Similarly, all compound annual growth values and percentage growth comparisons are based on constant dollars and thus adjusted for inflation.

Similarly, due to the native format of FPDS and the ease of comparison with government databases, all references to years conform to the federal fiscal year. Thus fiscal year 2012, the most recent complete year in the database, spans October 1, 2011, to September 30, 2012.

Small, Medium, and Large Vendors

To analyze the breakdown of competitors in the market into small, medium, and large vendors, the CSIS team assigned each vendor in the database to one of these size categories. Any organization designated as small by the FPDS database—according to the criteria established by the federal government—was categorized as such unless the vendor was a known subsidiary of a larger entity. Due to varying standards across sectors, an organization may meet the criteria for being a small business in certain contract actions and not in others. The study team did not override these inconsistent entries when calculating the distribution of value by vendor size.

Vendors with annual revenue of more than \$3 billion, including from nonfederal sources, are classified as large. This classification is based on the vendor's most recent revenue figure at time of classification. For vendors that have gone out of business or been acquired, this date may be well before 2012. A joint venture between two or more organizations is treated as a single separate entity and those with a large parent were also defined as large.

To better analyze the defense industrial base, the study team made significant efforts to consolidate data related to subsidiaries and newly acquired vendors with their parent vendors. For example, this results in a parent vendor appearing once on CSIS's top 20 lists rather than being divided between multiple entries. The assignment of vendor revenue is done on an annual basis and a merger must be completed by the end of March to be consolidated for the fiscal year in question. This enabled the study team to more accurately analyze the defense industrial base, the number of players in it, and their level of activity.

Over the past four years, the study team has applied a systematic approach to these vendor roll ups. Since the prior report, there have been significant changes in the raw data. FPDS still uses hundreds of thousands of DUNS (Data Universal Numbering System) codes from Dun and Bradstreet to identify service providers, but they have switched from detailed 13-digit codes to standardized 9-digit codes. A salutary benefit of that standardization is that FPDS now provides parent vendor codes. These parent codes track the current ownership of vendors, but are not backward looking. Thus, a merger that happened in 2010 would not affect parent assignments in 2000. This prevents the study team from adopting these assignments in their entirety. Finally, as mentioned above, the study team is no longer limited to considering a single year at a time for technical reasons. These changes have allowed us to undertake significant upgrades to the vendor parent assignments.

Prior to the most recent CSIS contracting report, *Structure and Dynamics of the U.S. Federal Services Industrial Base, 2000–2012*, the study team had investigated and classified all DUNS numbers associated with more than \$500 million of contract revenue in any single year. Building off the work of our departmental reports, we have now expanded *and lowered* that criterion to \$250 million of total contract revenue. We have also added an alternate threshold and investigate every DUNS number with

more than \$1 billion in obligations between 2000 and 2012, no matter how much they receive in any individual year.

We have reinforced these manual DUNS number assignments with automated assignments based on the vendor name. Qualifying for automated assignment by name requires three criteria: 1) a standardized vendor name matches with the name of a parent vendor, 2) that name has been matched to the parent vendor by CSIS or the Parent DUNS number field, and 3) there are no alternative CSIS assignments of that vendor name. This process is not immune to error, but it reduces the risk that a DUNS number is considered large in one year but overlooked in another. As an error-checking mechanism, the study team compares our assignments to those made by Parent DUNS number for every DUNS number with \$500 million in annual obligations or \$2 billion in total obligations, and investigates contradictions.

Finally, to identify large vendors, the study team investigates any vendor with total obligations of \$500 million in a single year or \$2 billion over the study period. Determining revenues is the most labor-intensive part of the process and involves use of vendor websites, news articles, various databases, and public financial documents. All of this work taken together explains the increase in the market share of large vendors versus our prior report. While large vendors are, on rare occasions, reassigned into the middle tier, the vast majority of investigations either maintain the status quo or identify small or medium vendors that should be classified as large.

Changes to the Handling of Contract Vehicle

The change to contract vehicles is predominantly behind the scenes. Prior to the 2012 Services Report, the study team relied on separate queries using the FPDS web tool to gain access to the referenced indefinite delivery vehicle (IDV) fields to classify contract vehicles. Those fields are still unavailable from USAspending.gov, but thanks to technical upgrades, the study team was able to reconstruct them. This switch allows cross-tabulation discussed below and removes the discrepancies that result from use of multiple sources.

Changes to the Handling of Competition

Another benefit of reconstructing vehicle information is that it allows us to apply DoD methodology for classifying competition. Under current DoD methods, certain indefinite delivery contracts (IDCs) are classified using a different field focused on competition after the initial offering. This change both makes this report more closely comparable to DoD reporting and better reflects the level of competition in these increasingly prevalent contract vehicles. Additionally, to better evaluate the rate of “effective competition” within DoD, the study team shifted focus to the number of offers received for competitive contracts. See the competition section of Chapter 2 for additional details.

Data Reliability Notes and Download Dates

Any analysis based on FPDS is naturally limited by the quality of the underlying data. Several Government Accountability Office (GAO) studies have highlighted the problems of FPDS (for example, the December 30, 2003, report: “Reliability of Federal Procurement Data,” and the September 27, 2005, report: “Improvements Needed for the Federal Procurement Data System—Next Generation”).

In addition, the FPDS data for past years are continuously updated over time. While fiscal year 2007 was long closed, over \$100 billion worth of entries for that year were modified in 2010. This explains any discrepancies between the data presented in this report and those in previous editions. Such changes to FPDS may well be worthwhile, but should be monitored and clearly identified due to the potential for misunderstanding and abuse.

Despite its flaws, FPDS is the only comprehensive data source of government contracting activity and is more than adequate for any analysis focused on trends and order-of-magnitude comparisons. In order to be transparent about weaknesses in the data, this report consistently describes data that could not be classified due to missing entries or contradictory information as “unlabeled” rather than including them in an “other” category.

The 2012 data used in this report were downloaded in February 2013. The 2000–2011 data were downloaded between September and December 2012.

Chapter 2: Overall Defense Contracting Trends

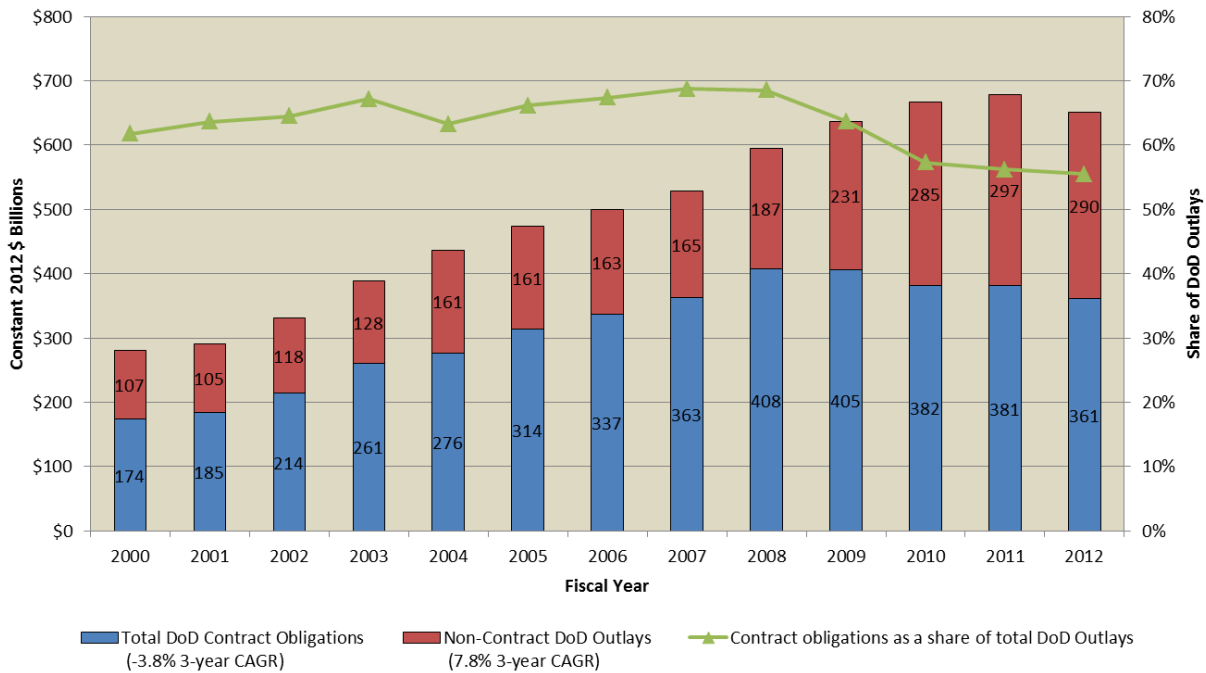
Over the past decade, the Center for Strategic and International Studies (CSIS) has been analyzing and reporting on contract spending for national security and across the federal government. This report analyzes contracting for products, services, and research and development (R&D) by the U.S. Department of Defense (DoD) and its key components. It provides an in-depth look at the trends currently driving nearly 70 percent of all federal contract dollars throughout the growth and subsequent inflection of defense spending of the 2000–2012 study period. This third edition of the DoD report updates reports from previous years and provides greater depth of analysis. Rather than primarily reporting the changes across dozens of graphs, the analysis lists key factors behind growth or decline. However, the ability to dive deeply into raw data is as important to many CSIS readers. To meet that need, CSIS has significantly upgraded the project website (<http://www.csis.org/NSPIR/DoD>) to include the graphs and table contained within this report as well as variants by defense component and by product/service area. This website will be a living repository. Throughout the year, the study team will publish and update the data underlying shorter publications on key issues relevant to the defense-industrial base.

This chapter analyzes eight key facets of the defense industrial base:

- Defense component
- Product/service area
- Competition
- Pricing mechanism
- Contract vehicle
- Contract size
- Vendor size
- Top 20 vendors

Top Line Defense Contract Obligations and Outlays

Figure 2-1: Top Line Defense Contract Obligations and Outlays, 2000–2012¹



Source: FPDS; OMB Historical Tables; CSIS analysis.

Figure 2-1 presents total DoD obligations from 2000–2012, broken down by DoD contract obligations (for products, services, and R&D) and noncontract DoD outlays. In contrast to the remainder of the report, these obligations are classified by the agency that funds the contract rather than the agency that manages the contract. This exception allows for better comparison with the overall departmental budget. These amounts appear by the data labels on the bars, corresponding with the left-hand y-axis. Total DoD contract obligations are tracked as a share of overall DoD outlays by the line near the top of the graph, corresponding with the right-hand y-axis.

Between 2000 and 2012, growth in noncontract DoD outlays (39.2 percent 12-year compound annual growth rate, or CAGR) significantly outpaced growth in overall DoD contract obligations (27.6 percent 12-year CAGR). This decline-driven result stands in stark contrast to the trend from 2000 to 2009, where contract spending growth exceeded overall budget growth. As a share of overall DoD outlays, DoD contract obligations rose from 62 percent in 2000 to 69 percent in 2008, but have fallen off significantly since, to 55 percent in 2012. Within contract obligations, contract obligations for products (30.1 percent 12-year CAGR) have grown faster than contract obligations for services (25.4 percent 12-year CAGR). As a share of total DoD outlays, services contract obligations rose from 34 percent in 2000 to a peak of 37 percent in 2003, but have declined gradually since. Meanwhile, DoD products contract

¹ For the purposes of discussion of this chart, R&D is included in the category of “services contract obligations.” R&D is broken out as a separate category in the rest of the report.

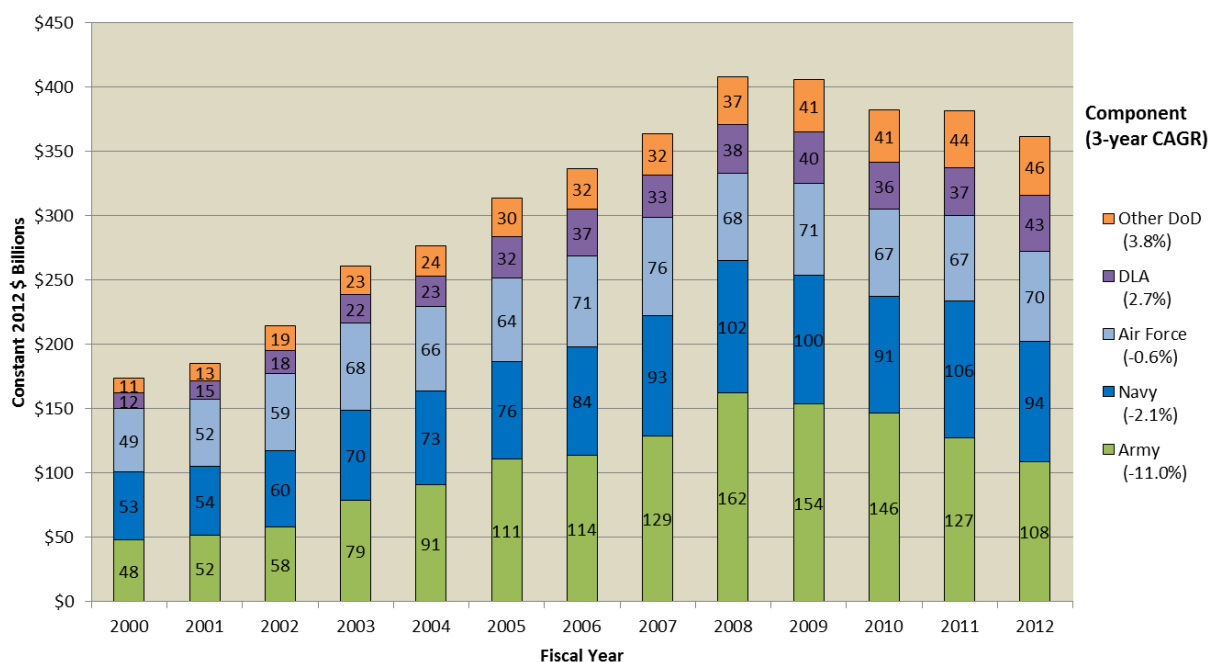
obligations rose as a share of overall DoD outlays from 28 percent in 2000 to 35 percent in 2008 (with most of the growth between 2006 and 2008), but has declined sharply in recent years.

In the 2009–2012 period, as total DoD outlays increased slightly (0.7 percent 3-year CAGR), noncontract DoD outlays saw moderate growth (7.8 percent 3-year CAGR), while overall contract obligations declined (-3.8 percent 3-year CAGR). As a share of total DoD outlays, contract obligations fell sharply, from 64 percent in 2009 to 55 percent in 2012. This trend supports the conventional wisdom that DoD contract obligations have been disproportionately targeted for savings during the current budget drawdown. Within contract obligations, services (-5.2 percent 3-year CAGR) declined more rapidly than products (-2.2 percent 3-year CAGR). As a share of total DoD outlays, services contract obligations fell from 34 percent in 2009 to 29 percent in 2012, while contract obligations for products declined from 29 percent in 2009 to 27 percent in 2012.

Between 2011 and 2012, as total DoD outlays declined by 4 percent, overall contract obligations declined by slightly more than 5 percent, while noncontract DoD outlays declined by just over 2 percent. As a share of overall DoD outlays, contract obligations declined from 56 percent in 2011 to 55 percent in 2012. Within contract obligations, services declined by almost 8 percent, while products declined by just under 3 percent. As a share of total DoD outlays, services contract obligations declined from 30 percent in 2011 to 29 percent in 2012, while contract obligations for products rose from 26 percent to 27 percent.

Defense Contract Obligations by Component

Figure 2-2: Defense Contract Obligations by Component, 2000–2012



Source: FPDS; CSIS analysis.

2000–2012: Longer-Term Trends across Defense Components

The share of DoD contract obligations awarded by the Army rose from 28 percent in 2000 to a peak of 40 percent in 2008, as the wars in Iraq and Afghanistan drove spending priorities. As the United States has withdrawn from Iraq and drawn down forces in Afghanistan, the share awarded by the Army has decreased steadily, to 30 percent in 2012. Almost 70 percent of Army contract obligations were awarded under fixed price contract types in every year since 2005.

The share of contract obligations awarded by the Navy declined from 30 percent in 2000 to 24 percent in 2005, and has hovered between 24 percent and 26 percent in all but one year since (28 percent in 2011). The share of contract obligations awarded to the Air Force declined steadily since 2000, from 28 percent to a low of 17 percent in 2011. The Defense Logistics Agency (DLA), which accounted for only 7 percent of DoD contract obligations in 2000, rose to 11 percent by 2006, and hovered between 9 percent and 10 percent in every year until 2012, when it rose to 12 percent. The share of contract obligations awarded by “Other DoD” components has risen steadily since 2000, from 6 percent to 13 percent in 2012.

2009–2012: Changes to Defense Components during the decline

The 2009–2012 period saw Army contract obligations rapidly decline from their wartime peaks. From 2009–2012, Army contract obligations declined at nearly three times the rate (-11.0 percent 3-year CAGR) of overall DoD contract obligations. As a share of overall DoD contract obligations, the Army has declined sharply, from 38 percent in 2009 to 30 percent in 2012. Even as overall Army contract

obligations declined sharply, Army equipment-related services (ERS) (-1.3 percent 3-year CAGR) and information and communications technology (ICT) services (-0.5 percent 3-year CAGR) stayed nearly level between 2009 and 2012. Contract obligations awarded under definitive contracts (-6.8 percent 3-year CAGR) and multiple award IDCs (-5.6 percent 3-year CAGR) declined at half the rate of overall Army contract obligations. And contract obligations awarded to small vendors declined notably slower than overall Army (-7.9 percent 3-year CAGR).

Navy contract obligations have largely escaped dramatic declines during this period. Contract obligations by the Navy (-2.1 percent 3-year CAGR) declined more slowly than did overall DoD contract obligations, as the share of DoD contract obligations awarded by the Navy hovered around 25 percent. This trend did not carry across the entire Navy contracting portfolio, however, as Navy R&D contract obligations declined at nearly five times the rate of overall Navy contract obligations (-9.9 percent 3-year CAGR). As discussed in detail in Chapter 3, this is largely the result of specific large R&D programs either being canceled or maturing out of R&D, rather than any broad-based cuts in R&D. Despite guidance to increase competition in contracting, the share of Navy contract obligations awarded without competition rose sharply, from 47 percent in 2009 to 54 percent in 2012.

Air Force contract obligations were preserved to an even greater degree than for the Navy. Air Force contract obligations were almost stable during this period (-0.6 percent 3-year CAGR), as the share of DoD contract obligations awarded by the Air Force hovered around 18 percent. Contract obligations for facilities-related services and construction (FRS&C) (-12.8 percent 3-year CAGR) and ICT (-13.7 percent 3-year CAGR) declined sharply between 2009 and 2012. The Air Force has the highest share of contract obligations awarded without competition, and that share has been rising consistently, from 54 percent in 2009 to 63 percent in 2012 (see Chapter 3 for more detail). There was notable growth in Air Force contract obligations awarded under fixed price contract types (60 percent in 2010, 67 percent in 2012). And Air Force contract obligations awarded under multiple award IDCs declined sharply (-11.5 percent 3-year CAGR), over six times the rate as for multiple award IDCs DoD-wide.

DLA saw minor growth in contract obligations (2.7 percent 3-year CAGR), largely due to increased contract obligations for fuels in 2012, which increased the share of overall DoD contract obligations awarded to DLA from 10 percent from 2009 to 2011, to 12 percent in 2012. DLA has been extremely successful in promoting competition, with the share of DLA contract obligations awarded after competition with five or more offers growing from 42 percent in 2009 to 60 percent in 2012.

“Other DoD” components (which includes all contracting entities within DoD that are not covered by the other four component categories, such as the Missile Defense Agency (MDA), TRICARE, and US Transportation Command (USTRANSCOM)) saw even stronger growth in contract obligations (3.8 percent 3-year CAGR), rising as a share of overall DoD contract obligations from 10 percent in 2009 to 13 percent in 2012. The main source of this growth was a dramatic increase in Equipment-related Services (ERS) contract obligations (31.8 percent 3-year CAGR), driven mostly by contract obligations for air and vessel freight under United States Transportation Command (USTRANSCOM) for the removal of materials and equipment out of Iraq and Afghanistan. “Other DoD” components have had some success in promoting competition, as contract obligations awarded after competition with five or more offers

grew over five times as fast as overall “Other DoD” contract obligations (21.1 percent 3-year CAGR) between 2009 and 2012.

2011–2012: Defense Components under the Budget Control Act

Between 2011 and 2012, as overall DoD contract obligations declined by 5 percent, Army contract obligations declined at three times that rate (-15 percent). The share of DoD contract obligations awarded by the Army declined from 33 percent in 2011 to 30 percent in 2012.

Navy contract obligations also dropped sharply, declining at over twice the rate of overall DoD (-11 percent). The share of DoD contract obligations awarded by the Navy declined from 28 percent in 2011 to 26 percent in 2012. Between 2011 and 2012, the share of Navy contract obligations awarded to large contractors rose 11 percent, while contract obligations awarded to the Big 6 defense contractors declined by 25 percent.

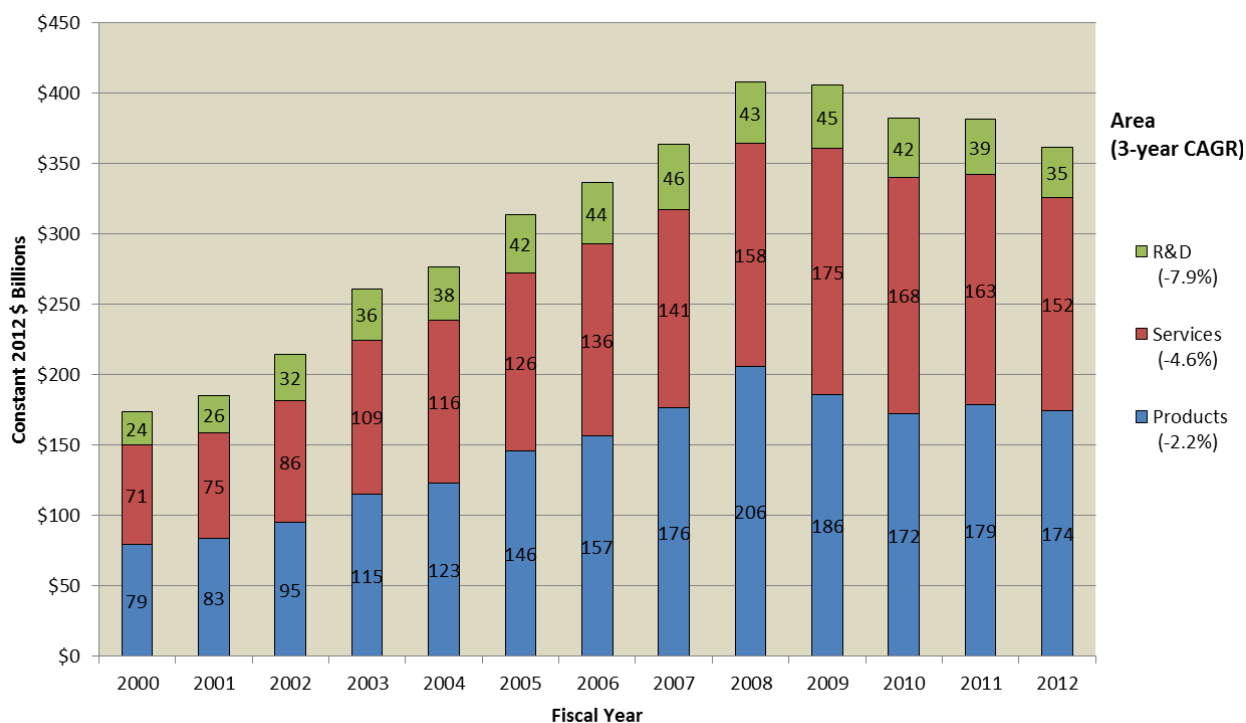
Air Force contract obligations grew moderately (5 percent), despite the overall decline within DoD. The share of DoD contract obligations awarded by the Air Force increased from 17 percent in 2011 to 19 percent in 2012. There was a sharp decline in Air Force R&D contract obligations between 2011 and 2012 (-10 percent), even as overall Air Force contract obligations increased. The main source of decline was an approximately \$500 million decline in R&D contract obligations related to the F/A-22 (from \$807 million in 2011 to \$300 million in 2012). Contract obligations awarded to large vendors declined sharply (-16 percent) while contract obligations for medium vendors (13 percent) and the Big 6 defense vendors (12 percent) grew strongly.

DLA contract obligations increased dramatically between 2011 and 2012 (17 percent), driven by massive growth in contract obligations for fuels between 2011 and 2012 (53 percent increase), likely due in large part to the movement of material out of Afghanistan as part of the drawdown. The share of DoD contract obligations awarded by the DLA increased from 10 percent in 2011 to 12 percent in 2012.

“Other DoD” components saw minor growth (3 percent), as the share of DoD contract obligations awarded by “Other DoD” components increased from 12 percent in 2011 to 13 percent in 2012. “Other DoD” contract obligations awarded to large vendors declined significantly (-8 percent) between 2011 and 2012, even as overall “Other DoD” contract obligations increased.

Defense Contract Obligations by Product/Service Area

Figure 2-3: Defense Contract Obligations by Product/Service Area, 2000–2012



Source: FPDS; CSIS analysis.

2000–2012: Longer-Term Trends across Products, Services, and R&D

The shares of defense contract obligations awarded for products, services, and R&D have been fairly consistent between 2000 and 2012. Products showed the most volatility, rising from 46 percent in 2000 to a high of 51 percent in 2008, before falling back to 45 percent by 2010. Troublingly, the share of products contract obligations awarded without competition has grown steadily since 2005 (49 percent in 2005, 59 percent in 2011 and 2012).

The share of defense contract obligations awarded for services hovered between 39 percent and 42 percent between 2000 and 2008, but rose to a high of 44 percent in 2010. The competition news was better for services. Since 2007, nearly two-thirds of services contract obligations have been awarded after competition with at least two offers.

R&D, which accounted for a high of 15 percent of defense contract obligations in 2002, has declined steadily since, to a low of 10 percent in 2011 and 2012. The decline also came with a shift in pricing mechanism: the share of R&D contract obligations awarded under fixed price contract types has tripled since 2007, from 7 percent in 2007 to 21 percent in 2012. See Chapter 3 for more discussions of fixed price contracts for R&D.

2009–2012: Changes to Product/Service Areas during the Decline

In the 2009–2012 period, defense contract obligations for products declined slightly more slowly than overall defense (-2.2 percent 3-year CAGR), rising as a share of overall defense contract obligations from 46 percent in 2009 to 48 percent in 2012. This decline was driven wholly by a reduction in Army contract obligations for products (-13.1 percent 3-year CAGR), as all other components saw mild growth.

Defense contract obligations for services declined marginally faster than overall defense (-4.6 percent 3-year CAGR), falling as a share of overall defense contract obligations from 43 percent in 2009 to 42 percent in 2012. As with products, this trend can be attributed to the Army, which saw services contract obligations decline at nearly twice the rate of overall DoD services (-9.1 percent 3-year CAGR), while “Other DoD” saw moderate growth (5.0 percent 3-year CAGR).

R&D contract obligations, meanwhile, declined at over twice the rate of overall defense (-7.9 percent 3-year CAGR), falling as a share of overall defense contract obligations from 11 percent in 2009 to 10 percent in 2012. Once again the decline in this area can be primarily attributed to the Army R&D contract obligations, which declined sharply (-13.2 percent 3-year CAGR). Unlike products and services, this decline was more broadly based, although R&D contract obligations by the Air Force (-4.0 percent 3-year CAGR) and “Other DoD” (-4.6 percent 3-year CAGR) declined at only around half the rate of overall R&D.

As is discussed in Chapter 3, these declines in R&D contract obligations can be traced to the cancellation or maturation of major R&D programs, such as the Army’s Future Combat Systems (FCS). This connection can also be seen in the fact that the share of R&D contract obligations awarded to the Big 6 defense vendors, who tend to be the providers for major weapon systems, declined from 58 percent in 2009 to 49 percent in 2012. Despite all this, there is one notable exception to the trend of decline: R&D contract obligations awarded under multiple award IDCs grew strongly (12.6 percent 3-year CAGR).

2011–2012: Product/Service Areas under the Budget Control Act

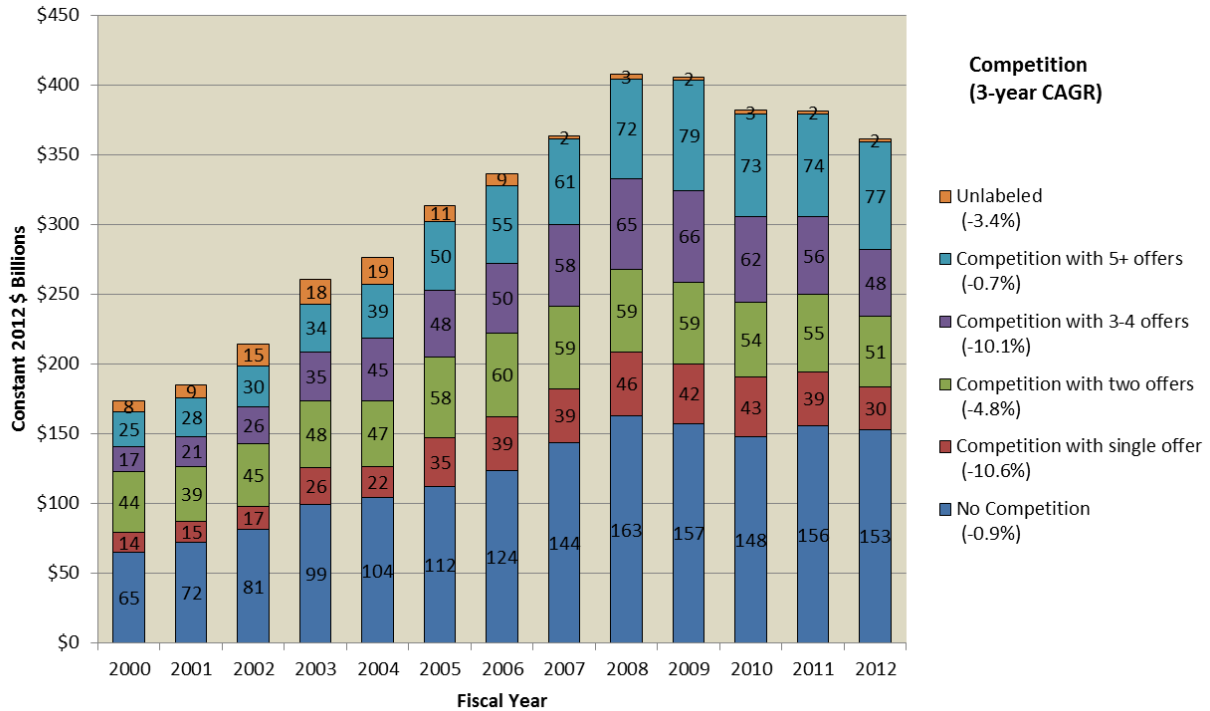
The trends from the 2009–2012 period were still evident between 2011 and 2012. Products contract obligations declined more slowly than overall defense (-3 percent). The comparatively small decline in products was made possible by the sharp growth (11 percent) in contract obligations awarded to large (other than Big-6) vendors. Nonetheless, products did experience sharp cuts in one contract vehicle: products contract obligations awarded under multiple award IDCs declined sharply between 2011 and 2012 (-36 percent). This cut is a definite contrast to services, where contract obligations awarded under multiple award IDCs held level (0.5 percent 3-year CAGR) from 2011–2012.

Yet for services, multiple award IDVs were an exception. The overall area declined more rapidly (-7 percent) than overall DoD from 2011–2012. The Big 6 was the main exception to this reduction. Between 2011 and 2012, contract obligations awarded to the Big 6 grew by 8 percent. This contrast reinforced an existing trend: between 2009 and 2012, contract obligations awarded to the Big 6 defense vendors were nearly level (0.9 percent 3-year CAGR), while contract obligations for all other size categories declined moderately.

R&D contract obligations continued to decline at twice the rate of overall defense (-10 percent). As shares of overall defense contract obligations, products increased from 47 percent to 48 percent, services declined from 43 percent to 42 percent, and R&D held steady at 10 percent.

Defense Contract Obligations by Competition

Figure 2-4: Defense Contract Obligations by Competition, 2000–2012



Source: FPDS; CSIS analysis.

Figure 2-4 shows the degree of competition for defense contract obligations between 2000 and 2012. This report utilizes a new method for assessing the quality of competition, focusing on the number of offers received. Previous CSIS contracting reports focused on the distinction between full and open competition and limited competition, but further analysis has shown that the category of “limited competition” is made up largely of contract actions under multiple award IDCs, due to the pre-clearance requirement for bidders. The research team sees this distinction as less important than the question of how much competition actually occurred, and thus the switch has been made to focus on number of offers received.

The share of defense contract obligations awarded without competition rose from 38 percent in 2000 to 42 percent in 2012. The share awarded after competition with only one offer rose from 8 percent in 2000 to between 10 percent and 11 percent from 2005–2011, but dropped back to 8 percent in 2012 following internal DoD guidance to reduce the instances of single-offer competition. The share of defense contract obligations awarded after competition with two offers has declined steadily, from 25 percent in 2000 to 14 percent in 2012. Overall, the share of contract obligations awarded with three or more offers has risen from 25 percent in 2000 to 34 percent in 2012, with the vast majority of that

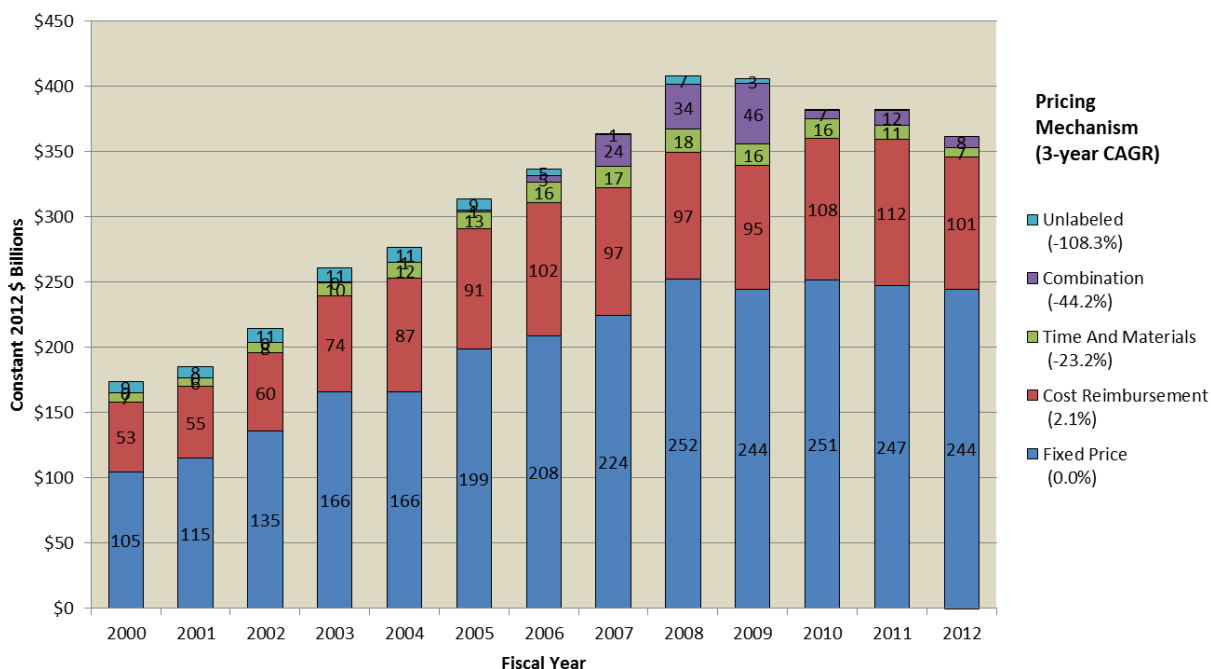
rise attributable to competition with five or more offers. Unlabeled, which accounted for as much as 7 percent of defense contract obligations in the early 2000s, now accounts for only 1 percent.

In the 2009–2012 period, contract obligations awarded without competition declined more slowly than overall defense (-0.9 percent 3-year CAGR), rising as a share of overall defense contract obligations from 39 percent in 2009 to 42 percent in 2012. Similarly, contract obligations awarded after competition with five or more offers (-0.7 percent 3-year CAGR) declined more slowly than did overall defense, rising as a share of overall defense from 19 percent in 2009 to 21 percent in 2012. Both contract obligations awarded after competition with a single offer (-10.6 percent 3-year CAGR) and competition with three or four offers (-10.1 percent 3-year CAGR) declined at over twice the rate of overall defense, with the former falling as a share of overall defense from 10 percent in 2009 to 8 percent in 2012, while the latter fell as a share from 16 percent in 2009 to 13 percent in 2012. Contract obligations awarded after competition with two offers held steady as 14 percent of overall defense contract obligations between 2009 and 2012.

Between 2011 and 2012, contract obligations awarded without competition declined more slowly than overall defense (-2 percent), rising as a share of overall defense contract obligations from 41 percent to 42 percent. Competition with a single offer declined sharply (-22 percent), in line with current guidance, falling from 10 percent of contract obligations to 8 percent. Both competition with 2 offers (-9 percent) and competition with three or four offers (-14 percent) declined more rapidly than did overall defense. Competition with five or more offers actually saw growth (5 percent) even as overall defense declined, rising as a share of overall defense from 19 percent to 21 percent.

Defense Contract Obligations by Contract Pricing Mechanism

Figure 2-5: Defense Contract Obligations by Contract Pricing Mechanism, 2000–2012



Source: FPDS; CSIS analysis.

Fixed price has been the predominant contract pricing mechanism for defense contract obligations from 2000–2012, accounting for 60 percent or more in every year during the period. The share of contract obligations awarded under cost reimbursement contract types hovered between 28 percent and 31 percent from 2000–2006, declined to 23 percent by 2009, and has rebounded to previous levels since. The share of defense contract obligations awarded under time and materials contract types hovered between 3 percent and 5 percent from 2000–2011, but fell to 2 percent in 2012. Combination contracts, which is a category for contracts with both fixed price and cost reimbursement elements that cannot be classified as one or the other, saw a brief surge in the late 2000s (to a high of 11 percent in 2009), but have fallen off since in line with DoD guidance to reduce use of the category. Unlabeled, which accounted for as much as 5 percent of contract obligations in the early 2000s, has declined steadily though the period, to less than 1 percent in the last three years.

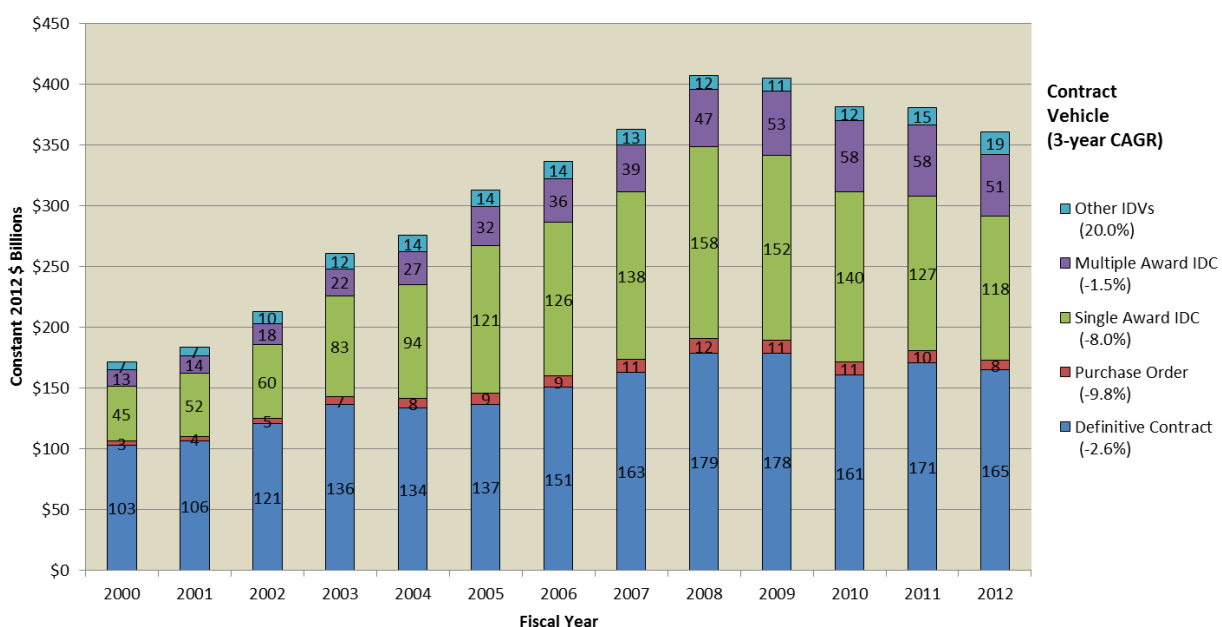
In the 2009–2012 period, as a share of overall defense, both fixed price (60 percent in 2009, 68 percent in 2012) and cost reimbursement (23 percent in 2009, 28 percent in 2012) have seen significant increases. **A large portion of those increases, however, appear to be directly attributable to the decline of combination contracts between 2009 and 2010.** As the share of contract obligations coded as combination contracts fell from 11 percent in 2009 to 2 percent in 2010, the share awarded under fixed price contract types rose from 60 percent to 66 percent, and the share awarded under cost reimbursement contract types rose from 23 percent to 28 percent. Given the correlation between the decline in combination contracts and the rise in both fixed price and cost reimbursement, the research team is confident that the majority of the rise in both fixed price and cost reimbursement contract

obligations between 2009 and 2010 is the result of better data labeling, rather than any change in contracting practices. Meanwhile, contract obligations awarded under time and materials contract types declined at almost six times the rate of overall defense (-23.2 percent 3-year CAGR), falling as a share of overall defense from 4 percent to 2 percent.

Between 2011 and 2012, there was a small but real increase in the share of contract obligations awarded under fixed price contract types, rising from 65 percent in 2011 to 68 percent in 2012. The share of contract obligations awarded under cost reimbursement contract types declined from 29 percent in 2011 to 28 percent in 2012.

Defense Contract Obligations by Contract Vehicle

Figure 2-6: Defense Contract Obligations by Contract Vehicle, 2000–2012



Source: FPDS; CSIS analysis.

The use of definitive contracts, which accounted for 59 percent of defense contract obligations in 2000, has declined steadily since, to a low of 42 percent in 2010. By contrast, there has been significant growth in various types of indefinite delivery contracts (IDCs): contract obligations awarded under single award IDCs rose from 26 percent in 2000 to a high of 39 percent in 2008, but have declined since, while multiple award IDCs have risen from 8 percent in 2000 to a high of 15 percent in 2011. Other IDVs have hovered between 3 percent and 5 percent for the period, while purchase orders have hovered between 2 percent and 3 percent.

In the 2009–2012 period, contract obligations awarded under both definitive contracts (-2.6 percent 3-year CAGR) and multiple award IDCs (-1.5 percent 3-year CAGR) declined more slowly than did overall defense, with the former rising as a share of overall defense from 44 percent in 2009 to 46 percent in 2012. Meanwhile, Other IDVs saw extremely strong growth (20.0 percent 3-year CAGR), rising as a share from 3 percent in 2009 to 5 percent in 2012. Contract obligations awarded under single award

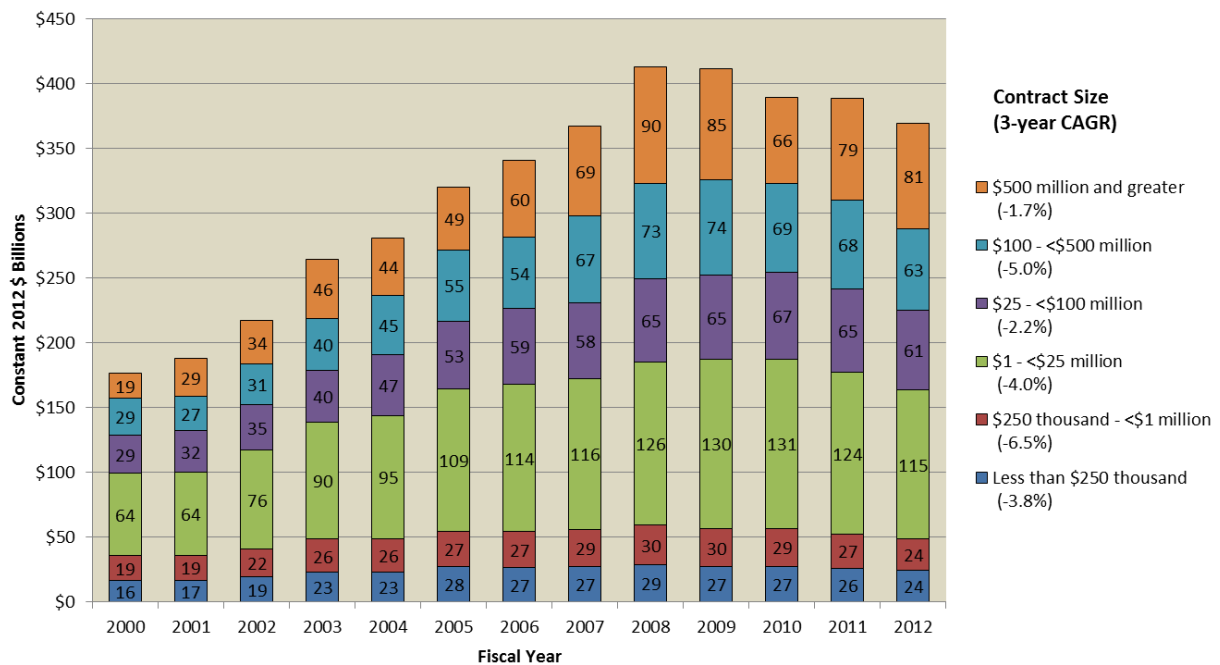
IDCs declined at over twice the rate of overall defense (-8.0 percent 3-year CAGR), falling as a share of overall defense from 37 percent in 2009 to 33 percent in 2012. Similarly, contract obligations awarded under purchase orders declined sharply (-9.8 percent 3-year CAGR), falling as a share of overall defense from 3 percent in 2009 to 2 percent in 2012.

Between 2011 and 2012, definitive contracts declined slightly slower than overall defense (-3 percent), rising as a share of overall defense from 45 percent to 46 percent. Other IDVs increased by 27 percent between 2011 and 2012, growing as a share of overall defense from 4 percent to 5 percent. Single award IDCs declined slightly faster than overall defense (-7 percent), holding steady as a share of overall defense at 33 percent. Contract obligations awarded under multiple award IDCs declined over twice as fast as overall defense (-13 percent), declining as a share of overall defense from 15 percent to 14 percent, while purchase orders declined at over four times the rate of overall defense (-21 percent), dropping from 3 percent of overall defense contract obligations to 2 percent.

As noted in the analysis of contract obligations by product/service area, there was a significant decline in products contract obligations awarded under multiple award IDCs between 2011 and 2012 (-36 percent). The research team further analyzed this decline by investigating if this was a DoD-wide trend, or if it was limited to products contract obligations in particular DoD components. The data show that the decline in multiple award IDCs is almost entirely in the Army—Army products contract obligations awarded under multiple award IDCs declined from \$7.9 billion in 2010 to \$6.5 billion in 2011 to \$3.5 billion in 2012, a 56 percent decline. This decline is likely attributable to the withdrawal from Iraq and the ongoing drawdown from Afghanistan, suggesting that the rising prominence of multiple award IDCs for products was largely an artifact of ongoing operations, and is unlikely to return absent future large-scale contingency operations.

Defense Contract Obligations by Contract Size

Figure 2-7: Defense Contract Obligations by Contract Size, 2000–2012



Source: FPDS; CSIS analysis.

Note: For this analysis, contract size is measured by total annual appropriations under a contract in a given year.

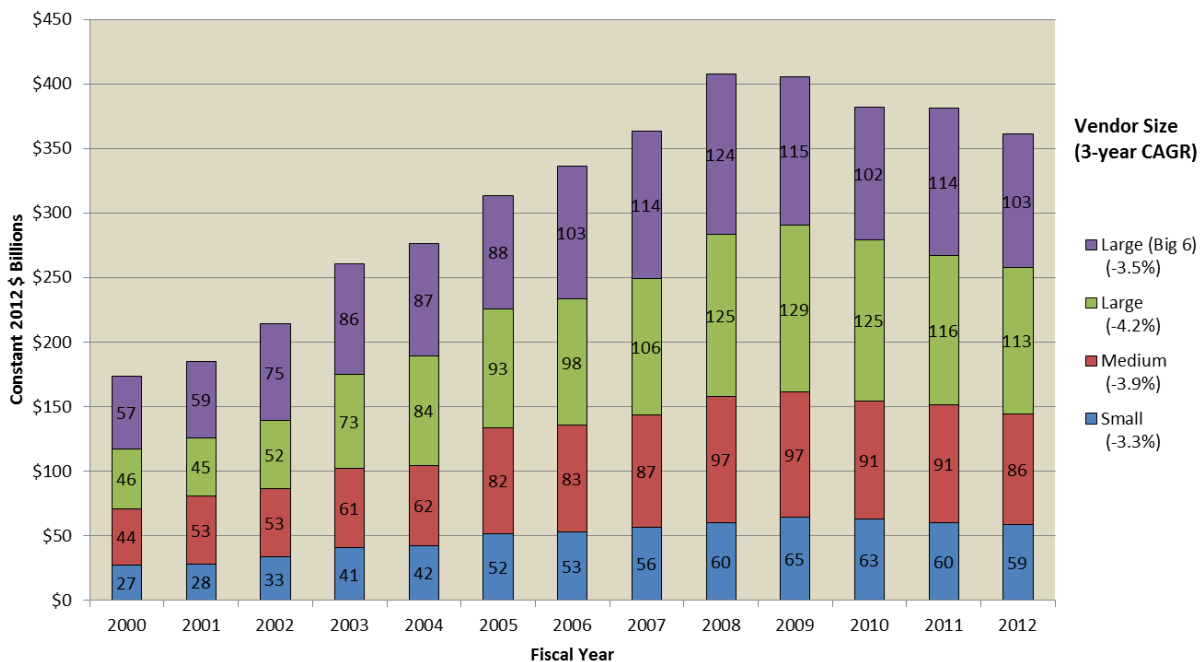
The share of defense contract obligations awarded in contracts less than \$250,000 has gradually declined, from 9 percent in 2000 to 7 percent in 2012. Obligations for contracts between \$250,000 and \$1 million have similarly declined, from 11 percent in 2000 to 7 percent in 2012. The share of obligations awarded for contracts between \$1 million and \$25 million declined from 37 percent in 2000 to 31 percent in 2008, and has fluctuated between 32 percent and 34 percent since. The shares awarded for contracts between \$25 million and \$100 million and for contracts between \$100 million and \$500 million have both fluctuated in the mid-teens throughout the decade, with no clear trend. Contracts \$500 million and greater, which accounted for 11 percent of contract obligations in 2000, have grown to account for 22 percent of contract obligations by 2012.

In the 2009–2012 period, contract obligations under contracts less than \$250,000 (-3.8 percent 3-year CAGR) and between \$1 million and \$25 million (-4.0 percent 3-year CAGR) all declined at rates comparable to the rate of decline for overall defense. Contract obligations awarded under contracts between \$250,000 and \$1 million (-6.5 percent 3-year CAGR) and between \$100 million and \$500 million (-5.0 percent 3-year CAGR) declined more steeply than did overall defense, while contract obligations for contracts between \$25 million and \$100 million (-2.2 percent 3-year CAGR) and \$500 million and greater (-1.7 percent 3-year CAGR) declined more slowly than overall defense. Contract shares for all categories stayed stable, shifting by a single percentage point or less.

Between 2011 and 2012, contract obligations under contracts less than \$250,000, between \$1 million and \$25 million, and between \$100 million and \$500 million all declined slightly faster than overall defense (-7 percent). Contract obligations for contracts between \$25 million and \$100 million declined at a rate comparable to that of overall defense (-6 percent), while contracts between \$250,000 and \$1 million (-9 percent) declined notably faster than did overall defense contract obligations. Meanwhile, contract obligations for contracts \$500 million and greater saw slight growth (3 percent), even as overall defense declined.

Defense Contract Obligations by Vendor Size

Figure 2-8: Defense Contract Obligations by Vendor Size, 2000–2012



Source: FPDS; CSIS analysis.

The shares of defense contract obligations awarded to the different categories of vendor size have been fairly consistent from 2000–2012. Small vendors have received between 15 percent and 16 percent of defense contract obligations in every year during the period. Medium vendors have received between 24 percent and 26 percent in all but two years, with a high of 29 percent in 2001 and a low of 23 percent in 2004. Large vendors received around a quarter of defense contract obligations from 2000–2003, but have received between 29 percent and 33 percent in every year since. The Big 6 defense vendors have shown the most volatility, hovering around 30 percent throughout the period, but with year-to-year fluctuations of up to four percentage points.

In the 2009–2012 period, all four size categories declined at rates comparable to the overall rate of decline for defense contract obligations: small (-3.3 percent 3-year CAGR); medium (-3.9 percent 3-year CAGR); large (-4.2 percent 3-year CAGR); and the Big 6 defense contractors (-3.5 percent 3-year CAGR). As a share of overall defense contract obligations, small and medium vendors both held steady,

at 16 percent and 24 percent, respectively. The share awarded to large vendors declined from 32 percent in 2009 to 31 percent in 2012, while the share awarded to the Big 6 rose from 28 percent in 2009 to 29 percent in 2012.

Between 2011 and 2012, small and large vendors declined at rates slower than that of overall defense (-2 percent for both). Medium firms declined at a rate comparable to the rate for overall defense (-6 percent), while contract obligations awarded to the Big 6 declined more rapidly (-9 percent). By share of overall defense contract obligations, no size category shifted by more than a single percentage point.

In spite of the commonly held perception that medium-sized vendors are losing ground in competition for defense contract obligations, the data show that medium vendors have consistently held onto their share of defense prime contract dollars. Aside from a one-year spike (to 29 percent) in 2001, medium vendors have received between 23 percent and 26 percent of defense contract obligations in every year since 2000, and have received 24 percent in every year since 2007. Similar trends are seen when looking at the industrial bases for products and services. For products, aside from brief spikes in 2001 and 2005–2006, between 18 percent and 22 percent of contract obligations have been awarded to medium contractors from 2000–2012. For services, between 29 percent and 31 percent of contract obligations have been awarded to medium vendors in every year since 2003. There is a notable difference for R&D: the share of R&D contract obligations awarded to medium contractors declined sharply in the early-to-mid 2000s (from 18 percent in 2000 to 11 percent in 2006), but has grown steadily since (to 19 percent in 2011 and 2012). The study team believes that the mid-decade decline in medium vendor R&D participation was due to the preponderance of large-scale R&D contracts tied to major defense acquisition programs, which squeezed out medium contractors to a degree.

While there are legitimate challenges facing medium vendors in terms of transitioning out of small-business set-asides and growing business by competing for large contracts against larger vendors, the data show that medium vendors have not been losing ground in defense contracting over the last 13 years.

Top 20 Defense Vendors, 2002 and 2012

Table 2-1: Top 20 Defense Vendors, 2002 and 2012

Rank	Top 20 Vendors in 2002	Obligations in 2012 Millions	2001 Rank	Top 20 Vendors in 2012	Obligations in 2012 Millions	2011 Rank
1	Lockheed Martin	20,980	1	Lockheed Martin	29,970	1
2	Boeing	20,730	2	Boeing	28,750	2
3	Northrop Grumman	10,890	6	Raytheon	13,640	5
4	Raytheon	10,510	3	General Dynamics	13,330	3
5	General Dynamics	9,680	4	Northrop Grumman	11,260	4
Subtotal for Top 5		72,790			96,950	
6	United Technologies	4,340	7	United Technologies	7,580	7
7	SAIC	2,750	8	L3 Communications	6,500	8
8	TRW	2,260	9	BAE Systems	6,370	6
9	Health Net	2,120	14	Huntington Ingalls Industries	5,670	-
10	BAE Systems	1,980	11	SAIC	5,150	9
11	General Electric	1,760	10	Humana	3,470	12
12	Humana	1,630	38	TriWest Healthcare	3,010	13
13	Honeywell	1,620	17	Health Net	2,930	15
14	Dyncorp	1,520	25	Bell-Boeing Joint Project Office*	2,890	18
15	United Defense Industries	1,470	34	Royal Dutch Shell	2,840	53
16	Computer Sciences Corp.	1,360	12	Supreme Group	2,830	25
17	ITT	1,330	16	Dyncorp International	2,800	16
18	Bechtel	1,290	18	Booz Allen Hamilton	2,600	19
19	Textron	1,150	24	Bechtel	2,520	20
20	URS	1,140	15	BP	2,510	32
Total for Top 20		100,500			156,630	
Total for all industry		213,930			360,910	

Source: FPDS; CSIS analysis. Note that numbers may not sum precisely to totals due to rounding.

* Joint Venture

The data in Table 2-1 shows a moderate broadening of the defense industrial base. In 2002, the top 5 defense vendors accounted for 72 percent of the contract obligations awarded to the top 20, and 34 percent of total defense contract obligations. In 2012, the top 5 defense vendors accounted for 62 percent of contract obligations awarded to the top 20, and only 27 percent of total defense contract obligations. Similarly, the top 20 accounted for 47 percent of total defense contract obligations in 2002, compared to 43 percent in 2012.

The top 5 defense vendors are unchanged between 2002 and 2012, although their order has shifted. It is worth noting that Northrop Grumman is still comfortably in the top 5, despite spinning off its shipbuilding functions into Huntington Ingalls Industries, which is itself the ninth-largest defense vendor in 2012. Overall, the most notable change between 2002 and 2012 is the appearance of three vendors involved in fuel supply: Royal Dutch Shell, Supreme Group, and BP. This shows the continuing cost of fuel supplies to Afghanistan, even as troop levels and operations there draw down. None of those three vendors were in the top 20 in 2011, and their rise coincides with a 53 percent rise in defense contract obligations for fuels between 2011 and 2012, likely in large part due to the movement of material out of Afghanistan as part of the drawdown.

Final Thoughts

The CSIS analysis in this chapter reflects selective samples of data and assessments. Additional data are available at <http://www.csis.org/NSPIR/DoD>. CSIS will update both the data and the analysis as FY2013 data become available. As the first year of sequestration budget reductions, FY2013 data should prove important to this analysis.

Chapter 3: Policy Implications

This chapter assesses some of the key trends identified in the preceding chapter to provide additional context on the key drivers and consequences of those trends. The four trends analyzed are:

- What are the specific sources of the decline in DoD R&D contract obligations?
- What is responsible for the rise in the share of R&D contract obligations awarded under fixed price contract types?
- How successfully have the different DoD components implemented guidance to increase competition in contracting?
- How do rates of effective competition vary by size of contract?

What are the specific sources of the decline in DoD R&D contract obligations?

As discussed earlier, between 2009 and 2012, R&D contract obligations have declined at over twice the rate of overall DoD contract obligations. R&D contract obligations by the Air Force (-4.0 percent 3-year CAGR) and “Other DoD” (-4.6 percent 3-year CAGR) have declined at rates comparable to the rate of decline for overall DoD, but R&D contract obligations by the Navy (-9.9 percent 3-year CAGR) and the Army (-13.2 percent 3-year CAGR) have declined significantly more steeply. The research team investigated further to determine if there was any deeper trend within the cuts in R&D contract obligations or if the changes were happening on a piecemeal, program-by-program basis.

For the Army, the cancellation of a single program is responsible for nearly the entire decline in R&D contract obligations between 2009 and 2012. The Army obligated \$2.8 billion for operational systems development contracts tied to the Future Combat Systems (FCS) in 2009, declining to \$1.4 billion in 2010, \$900 million in 2011, and -\$180 million (representing de-obligations) in 2012. With Army R&D contract obligations declining \$3.4 billion between 2009 and 2012, the drop-off in FCS R&D contract obligations accounts for 87 percent of the decline in Army R&D contract obligations. In other words, putting aside the FCS program, Army R&D contract obligations have been nearly level since 2009, declining by only 4 percent (comparable to the rate of overall DoD).

For the Navy, which saw R&D contract obligations decline by \$3.9 billion (a 27 percent decline) between 2009 and 2012, the sources of the decline are more diverse but nonetheless tied to major defense acquisition programs (MDAPs). Declines in contract obligations for advanced engineering on the DDG-1000 (referred to as DD(X) in FPDS) next-generation destroyer, operational aircraft R&D for the F-35 Joint Strike Fighter (JSF), and operational systems development for the Mobile User Objective System (MUOS) satellite program accounted for \$2.1 billion of the decline. Another \$1.8 billion comes in R&D for “Defense Aircraft (Operational)” not classified within the data as being associated with any specific MDAP; the research team suspects that this is largely JSF contract obligations for which the identifying field has not been properly filled in, but currently has no visibility into what programs those contract obligations are associated with. Put together, the declines in R&D associated with those four MDAPs account for the entirety of the decline in Navy R&D contract obligations between 2009 and 2012.

Overall, it seems clear that the declines in DoD R&D contract obligations since 2009 are tied to the cancellation or maturation from R&D to procurement account funding of specific MDAPs. Aside from those declines in R&D contract obligations for particular MDAPs, R&D does not appear to be declining more steeply than overall DoD contract obligations, and may in fact be declining more slowly. This suggests two wider policy implications. First that, sequester notwithstanding, DoD appears to have succeeded in cutting a small number of larger programs rather than the priority-free approach of widespread equivalent-level cuts to R&D. Second, these cancellations have not been replaced with a proportional amount of new spending, as budget pressures ramp up on the modernization accounts (including R&D).

What is responsible for the rise in the share of R&D contract obligations awarded under fixed price contract types?

As discussed earlier, the share of R&D contract obligations awarded under fixed price contract types has tripled since 2007, from 7 percent to 21 percent in 2012. While some of that increase is tied to better labeling (including the decline of combination contracts between 2009 and 2010), there nonetheless appears to be a real increase in fixed price contracting for R&D in recent years. Under Secretary of Defense for Acquisition, Technology, and Logistics (ATL) Frank Kendall has stated that the call to increase fixed price contracting in Better Buying Power 1.0 had resulted in fixed price contract types being overused in situations for which they were not ideal, such as when requirements are fluid or undetermined.² Those two characteristics are features of most R&D contracts, which makes it important to continue to track the trends in the rise of fixed price R&D contracting.

Looking at the issue by component, the Army and Air Force saw the most significant increases in fixed price contracting for R&D, but there is a notable difference between them. The share of Army R&D contract obligations awarded under fixed price contract types rose from 13 percent in 2009 to 27 percent in 2012. About half of that increase is the result of better data labeling, but there is still a real and significant increase in fixed price contracting for Army R&D. Similarly, the share of Navy R&D contract obligations awarded under fixed price contract types rose from 8 percent in 2009 to 13 percent in 2012, with about half of that increase related to better data labeling.

By contrast, the share of Air Force R&D contract obligations awarded under fixed price contract types, which rose from 12 percent in 2009 to 29 percent in 2012, is independent of any improvement in data labeling—the entire increase seems to represent a real rise in fixed price contracting for R&D within the Air Force. Likewise, the share of “Other DoD” R&D contract obligations awarded under fixed price contract types rose from 2 percent in 2011 to 10 percent in 2012, independent of any data labeling change.

Looking at the increase in fixed price R&D contract obligations by MDAP and type of R&D, the most notable increases in fixed price R&D contract obligations were for applied/exploratory research and missile and space systems. The Air Force obligated \$1.1 billion under fixed price contracts for

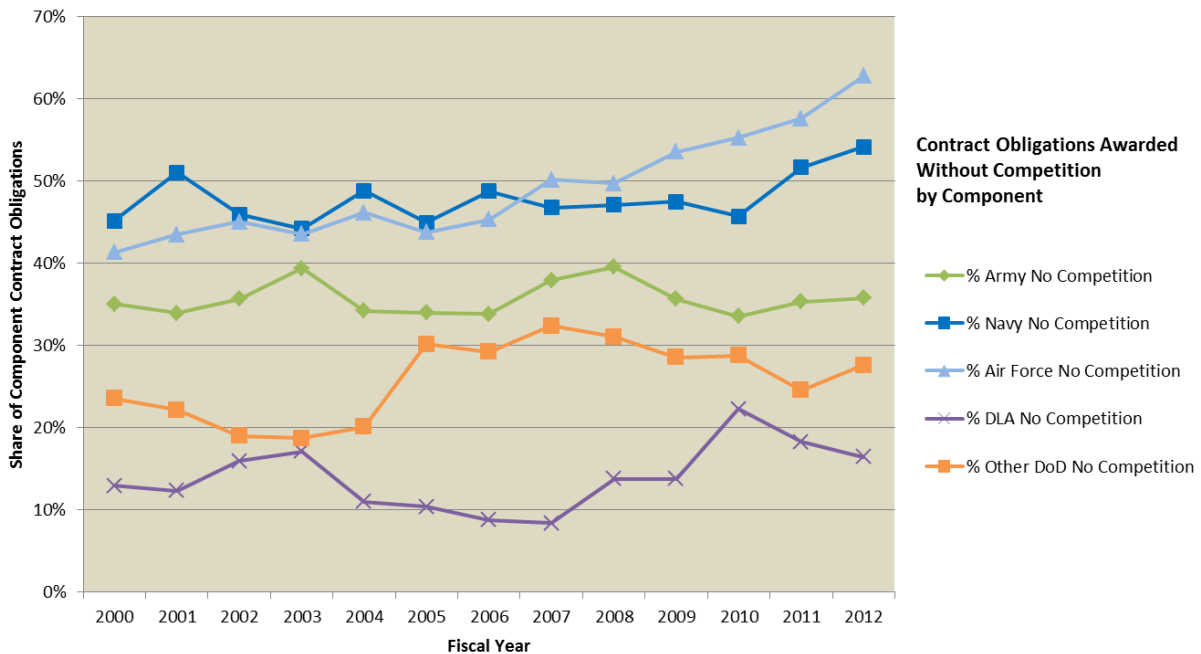
² Frank Kendall, “Better Buying Power 2.0,” <http://www.acq.osd.mil/docs/USD%28ATL%29%20Signed%20Memo%20to%20Workforce%20BBP%202%200%20%2813%20Nov%2012%29%20with%20attachments.pdf>.

operational systems development of the Wideband Gapfiller program, and also saw significant increases in fixed price contract obligations for advanced development and applied research/exploratory development tied to space and missile systems. Within the category of “Other DoD”, there were \$400 million in new fixed price contract obligations in 2012 tied to engineering development in support of the Missile Defense Agency. The Navy saw a \$550 million increase between 2009 and 2011 in fixed price contract obligations tied to the E-2C Advanced Hawkeye program (for operational R&D), while the Army saw a \$450 million increase in fixed price contract obligations for defense-related applied/exploratory research. The research team will continue to monitor these trends in future reports.

How successfully have the different DoD components implemented guidance to increase competition in contracting?

Across all of DoD, the share of contract obligations awarded without competition has risen steadily since 2005, from 36 percent to a new high of 42 percent in 2012. This has occurred despite specific guidance, both from OMB and from within DoD, calling for a focus on increasing competition in contracting. That overall trend does not tell the whole story, though, because there are distinct differences in competition trends between the major DoD components. Figure 3.1 shows the share of contract obligations awarded without competition in each year, broken down by DoD component.

Figure 3-1: Share of Defense Contract Obligations Awarded without Competition, by Component, 2000–2012



Unsurprisingly, given the types of contracts it issues and what it contracts for, the Defense Logistics Agency (DLA) has the lowest share of contract obligations awarded without competition, but that share has trended upwards, rising from 8 percent in 2009 to a high of 22 percent in 2010, before falling back to 16 percent by 2012. The category of “Other DoD,” which saw a major increase between 2004 and 2005 (from 20 percent to 30 percent), has remained near 30 percent since, aside from a one-

year dip in 2011 (to 25 percent). The Army has been consistent, awarding between 34 percent and 36 percent of its contract obligations without competition in all but two years since 2004; there was a brief spike in 2007 (38 percent) and 2008 (40 percent), but the share of Army contract obligations awarded without competition was 36 percent in both 2009 and 2012.

The share of Navy contract obligations awarded without competition fluctuated between 44 percent and 49 percent between 2002 and 2010 but has surged in the last two years, to a high of 54 percent in 2012. The share of Air Force contract obligations awarded without competition has steadily risen even higher since 2005, from 44 percent to an all-time high of 63 percent in 2012. In both of these DoD components, there has been a significant increase in the share of contract obligations awarded without competition since 2009, despite internal guidance to increase the use of competition.

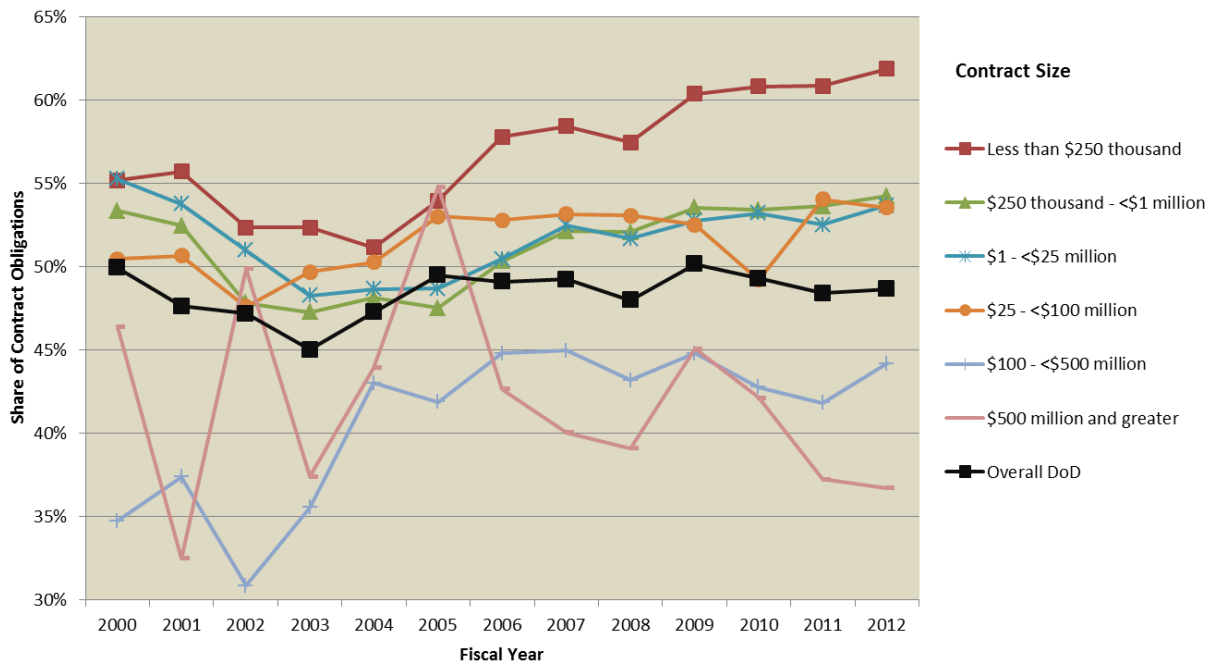
Contracts awarded without competition need to cite the exception under which the award is made. These exceptions tie to the Competition in Contracting Act of 1984, as amended (often called CICA.) It is worth noting that the trends in the exceptions cited for awarded contract obligations without competition between 2009 and 2012 are roughly similar between the Army and the Air Force. For the Army, contract obligations awarded without competition citing “Only One Source” exceptions (which are the most commonly cited competition exceptions DoD-wide) declined at a rate comparable to overall Army contract obligations (-12.6 percent 3-year CAGR), while “Other Exceptions” (which includes exceptions for urgency and national security, as well as exceptions authorized by statute or by international agreement) declined at less than half the rate of overall Army (-5.1 percent 3-year CAGR). Interestingly, within the “Only One Source” family of exceptions, Army use of the “Unique Source” exception declined by two-thirds. Approximately half of that decline was directly tied to reductions in Army contract obligations for MRAPs. Use of all other related exceptions within the Army declined by less than 10 percent over the same period.

For the Air Force, contract obligations awarded without competition citing the “Only One Source” exception declined at a rate comparable to overall Air Force (-2.6 percent 3-year CAGR), while those citing “Other Exceptions” grew strongly (20.9 percent 3-year CAGR), driven primarily by a \$7.5 billion increase (from \$2.1 billion in 2011 to \$9.6 billion in 2012) in contract obligations awarded without competition which cited the “international agreement” exception. These trends probably reflect contract-by-contract decisions more than deviations from overall policy guidance.

How do rates of effective competition vary by size of contract?

To examine further how well DoD contracts reflect guidance to increase competition in contracting, the CSIS research team examined the degree of effective competition (which CSIS defines as competed contracts that received at least two offers), broken down by size of contract. As with the discussion of overall DoD contract obligations by contract size in Chapter 2, contract size is measured by total annual obligations under a contract in a given year. Figure 3-2 shows the share of DoD contract obligations under different contract sizes that were awarded after competition with two or more offers. The black line represents the share of overall DoD contract obligations awarded after competition with two or more offers. *(Note that the scale of this chart goes from 30% to 65%, for purposes of readability.)*

Figure 3-2: Share of Defense Contract Obligations Awarded after Effective Competition, by Size of Contract, 2000–2012



Unsurprisingly, there is a general trend of higher rates of effective competition for smaller contract size categories, though there are notable exceptions. The smallest contracts (less than \$250,000) saw a decline in the rate of effective competition in the early 2000s (to a low of 51 percent in 2004), but have steady increases since, to a new high of 62 percent in 2012. Contracts from \$250,000 to \$1 million and from \$1 million to \$25 million saw strikingly similar patterns of competition—both saw the rate of effective competition dip below 50 percent in the early-to-mid-2000s, only to return to and stabilize around previous levels (54 percent in 2012 for both).

Interestingly, contracts from \$25 million to \$100 million saw the second-highest rate of effective competition in many years during the period observed. Part of that has been the stability of the rate of effective competition—since 2005, between 53 percent and 54 percent of contract obligations awarded under contracts from \$25 million to \$100 million were awarded after effective competition in every year but one (49 percent in 2010). This makes sense, because contracts in this range are large enough to attract bidders from across the range of vendor sizes, but not so large as to restrict the pool of vendors capable of performing. There has, however, been a drop-off in the rate of effective competition for contracts from \$100 million to \$500 million, dipping as low as 31 percent in 2002. Since then, the rate of effective competition for contracts from \$100 million to \$500 million has risen and stabilized, fluctuating between 42 percent and 45 percent since 2004.

Contracts over \$500 million have seen significant fluctuations in rates of effective competition in the early-to-mid-2000s, ranging from a low of 33 percent to a high of 55 percent. Since there are so few contracts that obligate more than \$500 million in a single year, the phasing in or phasing out of a single large contract can significantly skew the effective competition rates. Since 2006, however, there has

been a generally consistent decline in the rate of effective competition (interrupted by a spike in 2009, to 45 percent), decreasing from 43 percent in 2006 to 37 percent in 2011 and 2012. That rate was 12 percentage points lower than the rate of effective competition for overall DoD contract obligations. Interestingly, across the 2000–2012 period, the average rates of effective competition for contracts between \$100 million and \$500 million and for contracts \$500 million and greater are nearly identical (42 percent and 41 percent, respectively).

It is also worth noting that a disproportionate share of the effective competition for contracts \$500 million and greater receive only two offers—53 percent of effectively competed defense contract obligations for contracts \$500 million and greater receive only two offers, while two-offer competition comprises no more than 32 percent of effective competition in any other size category. While the scope and complexity of some of these \$500+ million contracts (such as those for aircraft or ships, or for management of national nuclear laboratories) may be irreducible, the particularly low rate of effective competition should be a target for increased attention by DoD policymakers, and the high rate of two-offer competition for the largest contracts indicates that there may be room for improvement in writing solicitations and/or contracts to bring in additional offerors.

Final Thoughts

Contract data analysis presents trends that support and sustain policy guidance in some cases and run counter to such guidance in other cases. The CSIS team believes that this represents an opportunity for additional analysis in future reports, and the next edition of this report will expand on these opportunities.

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