

## **U.S. Department of Defense Services Contract Spending and the Supporting Industrial Base, 2000-2011**

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## Research goals

- **Analyze trends in DoD services contract actions between 1990 and 2011**
  - For DoD overall and for individual DoD Components (Army, Navy, Air Force, and “Other”)
  - By area of defense service contract action
  - By level of competition, type of contract, and type of funding mechanism
- **Analyze the composition of the industrial base supporting DoD service contracts**
  - Breakdown of defense services industrial base into small, medium and large companies
  - Identification of Top 20 defense services companies (by total dollars obligated) for DoD overall and for each DoD Component (Army, Navy, Air Force, and “Other”)
- **This annotated brief presents the preliminary findings of this research, and covers only the years 2000-2011 for DoD overall**

2

Spending by the Department of Defense (DoD) on services contracts, which range from clerical and administrative work to vehicle maintenance to research and development (R&D), has been largely neglected by past studies of DoD spending trends. Yet DoD spending on services contract actions amounted to just under \$200 billion in 2011, more than 50 percent of total DoD contract spending and nearly a third of the entire DoD budget. Both the executive branch and Congress have implemented policies to improve acquisitions of services, but the impacts of their efforts remain uncertain without a clear, concise analysis of past spending. And the then Undersecretary of Defense for Acquisition, Technology and Logistics, Dr. Ashton Carter, has stated that: “Most of our services acquires, unlike weapons-system acquires, are amateurs... I intend to help them get better at it” (Speech at the Heritage Foundation, April 20, 2011).

The goal of this project is to provide policymakers with an in-depth analysis of trends in DoD spending on services contract actions and the companies that provided them from 1990 to 2011. Using the Federal Procurement Data System (FPDS) and other sources, we will present data on overall DoD services contract spending and on specific service areas. We will then analyze the data by degree of competition, contract vehicle type, DoD component, contractor identity, etc., and by DoD Component (Army, Navy, Air Force and “Other”). A set of recommendations for policymakers will then be developed and vetted with a panel of government, industry and academia experts.

### Data sources

- **The Federal Procurement Data System (FPDS) is the primary data source for this project, supplemented with the Bloomberg government contract database and verified with the USASpending.gov query tool**
- **FPDS includes only unclassified DoD prime contract actions worth over \$2,500 (\$25,000 for the years prior to 2005); for DoD, this amounted to over 3 million contract actions for 1990-2011**
- **Contract action classifications sometimes differ between FPDS and individual companies, resulting in some contract actions that a company considers as services being labeled as products by FPDS and vice versa**
- **Neither supplementals nor joint ventures are separately classified in FPDS**
- **All dollar figures are in constant 2011 dollars**

3

The main source of data for this project is the Federal Procurement Data System (FPDS), the official clearinghouse of federal government contracting data. This database includes, amongst other data, all unclassified DoD prime contract actions worth over \$2,500 (\$25,000 for the years prior to 2005). For each contract action, FPDS includes over two hundred fields of data. Using both the FPDS query tool and the USASpending.gov query function, CSIS identified and downloaded all DoD services contract actions for the period of 1990-2011. This amounts to over three million contract actions over the last 12 years. We then imported the data into a custom-built Microsoft Access database that included only fields that were relevant for our research, amounting to fifty-six fields that include the main categories for analysis in this report.

In addition to downloading the data, the CSIS research team undertook a rigorous process to verify and improve the accuracy and quality of the data. Trial queries were run to detect patterns of blank, incomplete, or improperly entered data. Data was also checked against the Bloomberg government contracting database to ensure overall accuracy, and against DoD's DD 350 Individual Contracting Action Reports to verify accuracy for certain large contracts.

## Methodology

- **Demand side:**
  - Six categories of services serve as the foundation for this analysis:
    - o Information and communications technology (ICT) services
    - o Professional, administrative, management services (PAMS)
    - o Research & development (R&D)
    - o Equipment-related services (ERS)
    - o Facility-related services & construction (FRS&C) services
    - o Medical services
  - These categories cover all FPDS service codes
  - The categories are closely aligned with - but do not fully overlap – DoD's services categories
- **Supply side:**
  - Four size categories for companies:
    - o Big 6: Lockheed Martin, Northrop Grumman, Boeing, General Dynamics, Raytheon, BAE
    - o Large: >\$3 billion in total annual revenue (excluding Big 6)
    - o Small: identified as such in FPDS (based on SBA guidelines)
    - o Medium: not identified as "small" and <\$3 billion in total annual revenue

4

In order to show broader trends among similar activities with overlapping industrial bases, CSIS created six service categories. Each category consists of several FPDS service codes and represents a broad area of service activity. The six categories and their respective FPDS service codes are:

**Information and communications technology (ICT) services** – All of service codes D, H, and L, and elements of service codes J, K, N and W;

**Professional, administrative, management services (PAMS)** – All of service codes B, C, R, T, and U, and elements of service codes A, H, and V;

**Research & development (R&D)** – Elements of service code A;

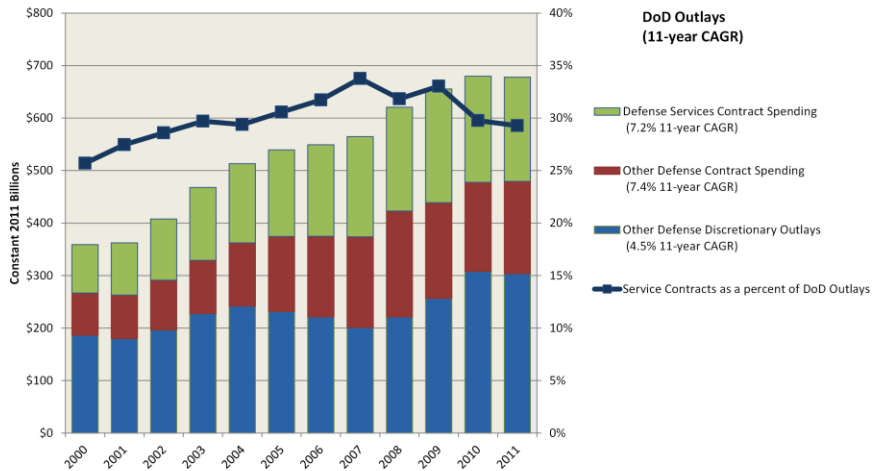
**Equipment-related services (ERS)** – Elements of service codes J, K, N, P, V, and W;

**Facility-Related Services & Construction (FRS&C) services** – All of service codes E, F, M, S, X, Y, and Z, and elements of service code P;

**Medical services** – All of service codes G and Q.

While these buckets correspond with similarly-titled DoD “portfolio groups”, their contents were selected by CSIS from FPDS service codes determined to be germane to each bucket’s title, thereby forming narrower definitions of each service category. This addresses a Defense Science Board criticism that the DoD portfolio groups “inappropriately” combine disparate service codes under the same title (such as those for routine education and training with those for expeditionary logistics management under “knowledge-based services”) (*Report of the Defense Science Board Task Force on Improvements to Services Contracting*. Washington, D.C.: OSD, March 2011, p. 6).

### DoD Service Contract Spending in Context, 2000-2011



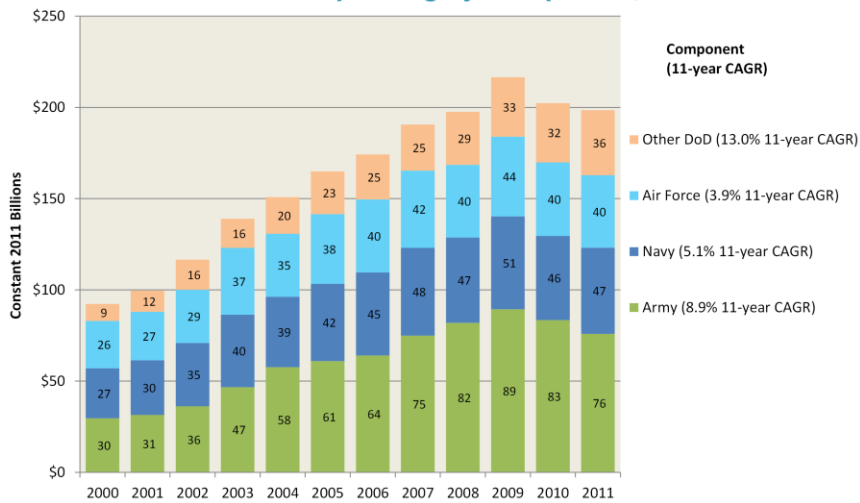
Sources: FPDS, Bloomberg government contract database, OMB Historical Tables; analysis by CSIS Defense-Industrial Initiatives Group

In 2011, DoD spending on service contract actions totaled \$198 billion, accounting for slightly under 30 percent of total DoD outlays and 56 percent of total DoD contract spending for the year (up from 50 percent the year before and 48 percent in 2000).

During the 12-year period analyzed, DoD services contract spending increased at an compound annual growth rate (CAGR) of 7.2 percent, which is just below the 7.4 percent 11-year CAGR exhibited by all other defense contract spending (which covers primarily DoD contracting for products).

Interestingly, during the recent years of defense drawdowns (2008-2011), DoD services contract spending decreased by some \$18 billion (a 9 percent decline) while spending on products decreased by \$26 billion (almost 13 percent). However, the share of service contract spending as a share of total DoD outlays decreased from 33 percent to under 30 percent.

### Defense Service Contract Spending by Component, 2000-2011



Source: FPDS; analysis by CSIS Defense-Industrial Initiatives Group

6

Spending on services across the various DoD Components grew at a rapid pace after 9/11, driven primarily by operations in Afghanistan and Iraq. However, this growth has not been even across the various DoD Components.

For much of the past decade, the Army was the primary driver of growth in DoD’s service contract spending, increasing at an average of 8.9 percent per year for the period. After reaching a peak of \$89 billion in 2009, Army service contract spending decreased substantially to \$76 billion in 2011, largely as a result of the U.S. force drawdown in Iraq. For the past three years, the Army’s spending on service contracts has *declined* by 2.5 percent per year.

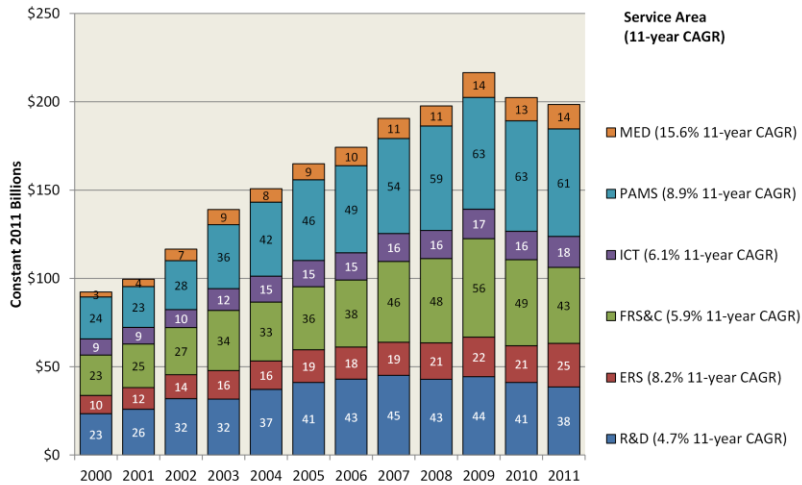
Growth in Air Force service contract spending was more moderate, increasing at an 11-year CAGR of 3.9 percent and hovering around \$40 billions each year since 2006.

Growth in Navy service contract spending was also slow relative to the Army’s, growing at a 5.1 percent 11-year CAGR from \$27 billion in 2000 to \$51 billion in 2009. Yet, as with all DoD Components, Navy spending decreased after 2009, from \$51 billion to \$47 billion, and, like the Air Force, Navy spending on services contracts has seen limited growth since 2006.

The highest growth rate in spending on services occurred in the “Other” category, which increased at a 13 percent CAGR, from \$9 billion to \$36 billion between 2000 and 2011. Furthermore, unlike the key military departments, the “Other” category continued to grow after 2009, from \$32 billion in 2010 to \$36 billion in 2011. [It should be noted that the main elements of the “Other” category are the Defense Logistics Agency and the Missile Defense Agency.]

Between 2009 and 2011, Army services contract spending decreased by nearly 15 percent, while that of the Navy and the Air Force decreased by 12 percent and 10 percent, respectively. Spending on services contracts in the Other DoD category, meanwhile, increased by 9 percent.

### Defense Service Contract Spending by Service Area, 2000-2011



Source: FPDS; analysis by CSIS Defense-Industrial Initiatives Group

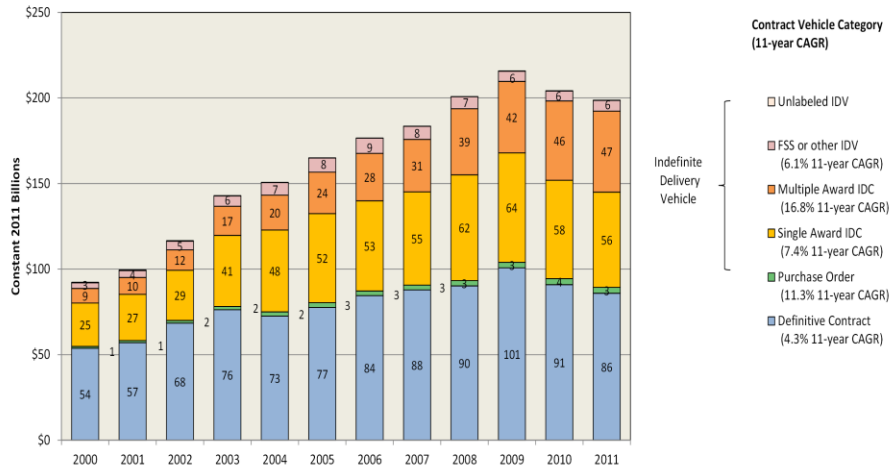
From 2000 to 2011, with record defense budgets and high operational tempo in Iraq and Afghanistan, all service categories experienced growth. MED had the highest growth at almost 16 percent per year on average, followed by PAMS and ERS with 8.9 and 8.2 percent, respectively. MED grew its share of total DoD service contracts from 3 percent in 2000 of to 7 percent in 2011, while PAMS grew from 26 percent to 30.6 percent. The only other service category that saw its share of overall service contracts increase was ERS, which grew from 10.8 percent in 2000 to 12.5 percent in 2011. However, the three largest categories in terms of total dollars spent remained PAMS, FRS&C, and R&D. For the 12-year period, R&D saw the slowest growth (4.7 percent CAGR) of any service area, though it should be noted that contract actions awarded for classified R&D are not included in the FPDS data.

As defense spending overall began decreasing in 2009, the biggest cuts in DoD service contracts occurred in FRS&C, which fell from \$55.7 billion in 2009 to \$43 billion in 2011, largely due to reduced demand for base construction and maintenance in support of operations in Iraq. The second-largest decrease in contract service spending by category was in R&D, which declined from \$44 billion in 2009 to \$38 billion in 2011.

Despite the decline in overall DoD services contract spending in recent years, spending on ERS, ICT and MED increased in 2011. The largest of these increases occurred in ERS, which grew from \$20.8 billion in 2010 to \$24.7 billion in 2011. This growth can be attributed to higher demand for services to repair and upgrade equipment returned from Iraq and Afghanistan, in anticipation of funds not being made available for acquiring new hardware. ICT grew from \$16.1 billion to \$17.6 billion and MED grew from \$13 billion to \$14 billion.

Between 2009 and 2011, DoD spending on R&D-related services decreased 13 percent, while spending on PAMS also declined by 4 percent. The largest percentage decrease in services spending during this time occurred in FRS&C with a loss of nearly 25 percent. Spending on MED, meanwhile, decreased only 1 percent. The only categories in which spending increased were ERS and ICT, which grew by 10 percent and 6 percent, respectively.

### Defense Service Contract Spending by Contract Vehicle, 2000-2011



Note: Total numbers do not match with those in other slides due to use of the FPDS.gov web tool as the source for this slide. Regular updates by FPDS administrators can change back year totals.

Source: FPDS webtool; analysis by CSIS Defense-Industrial Initiatives Group

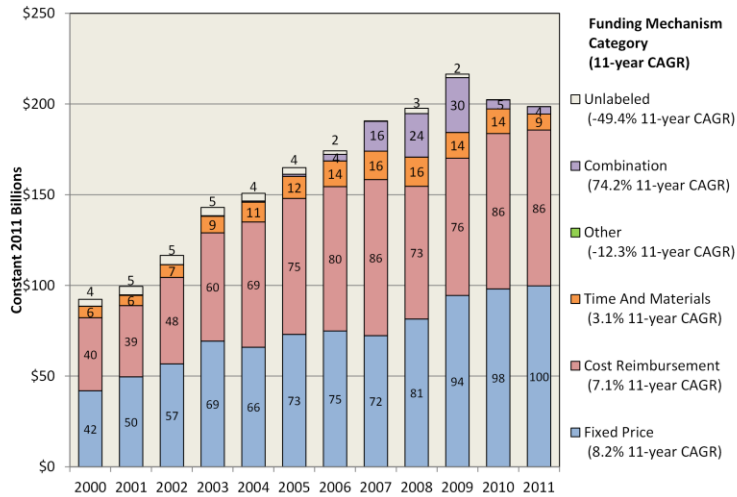
From 2000 to 2011, DoD services contract dollars awarded through definitive contract vehicles grew at a 4.3 percent 11-year CAGR, from \$54 billion in 2000 to \$85.8 billion in 2011. In parallel, dollars awarded through all IDVs collectively (FSS, Purchase Order, Multiple Award, Single Award, and Unlabeled IDVs) grew more than twice as quickly at a 10.2 percent 11-year CAGR, from \$37.5 billion in 2000 to \$109.4 billion in 2011. As a proportion of DoD contract dollars spent on services, those carried through definitive contracts declined from 58 percent in 2000 to 43 percent in 2011.

Much of the growth in IDVs over the last 12 years has been in the multiple-award IDV subcategory. Contract dollars delivered through this vehicle grew from just \$9 billion in 2000 to \$47 billion in 2011 at an 11-year CAGR of 16.8 percent. Despite the decline in DoD contract spending over the last two years, the multiple-award IDV subcategory has actually grown in value, from \$42 billion in 2009 to \$47 billion in 2011. Meanwhile, single-award IDVs have declined over the past two years observed, from \$64 billion in 2009 to \$56 billion in 2011. Yet, for the entire period observed, the single award IDV subcategory held a 7.4 percent 11-year CAGR, due to strong growth during the first nine years of the decade.

Between 2009 and 2011, DoD contract dollars for services delivered through Definitive Contracts decreased by 15 percent, while those delivered through a single-award IDV decreased by 13 percent. Contract dollars in the multiple-award IDV and FSS or Other IDV subcategories, meanwhile, increased by 13 percent and 5 percent, respectively.



### Defense Service Contract Spending by Funding Mechanism, 2000-2011



Source: FPDS; analysis by CSIS Defense-Industrial Initiatives Group

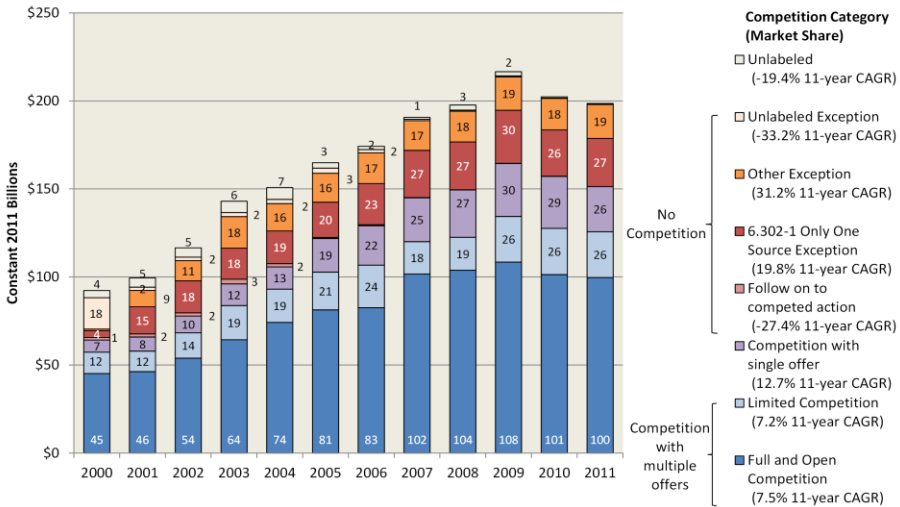
Between 2010 and 2011, there was a shift away from the use of time and materials funding mechanisms, an increase in the use of fixed price contracts, and no change in the use of cost reimbursement funding mechanisms.

Dollars spent on time and materials decreased from \$6 billion (6.5 percent of total service contract actions) in 2000 to \$8.9 (4.5 percent of total service contract actions) in 2011. The percentage of DoD services contract dollars funded through fixed price contracts increased from \$42 billion in 2000 (45.6 percent) to \$100 billion in 2011 (50.2 percent). The value of reimbursement contract actions remained constant at 43 percent of total DoD services contract dollars.

Combination funding mechanisms, which pose a problem for accountability and transparency because they obscure how many contract dollars were awarded in each category, saw a brief but sudden rise between 2006 and 2009, from \$4 billion to \$30 billion. However, this category then sharply dropped to \$5 billion in 2010 and further decreased to \$4 billion by 2011. Similarly, the data show that unlabeled contract funding mechanisms, which pose a similar problem for contracting oversight as that posed by combination mechanisms, have all but disappeared in the last two years.

Between 2009 and 2011, the total value of fixed-price contracts for defense services rose 6 percent, while that of cost-reimbursement contracts grew more than 13 percent. Time and materials contracts dropped in combined value by almost 38 percent. Meanwhile, the total value of contracts funded through a combination of these mechanisms fell precipitously, losing almost 87 percent of total value.

### Defense Service Contract Spending by Level of Competition, 2000-2011



Source: FPDS; analysis by CSIS Defense-Industrial Initiatives Group

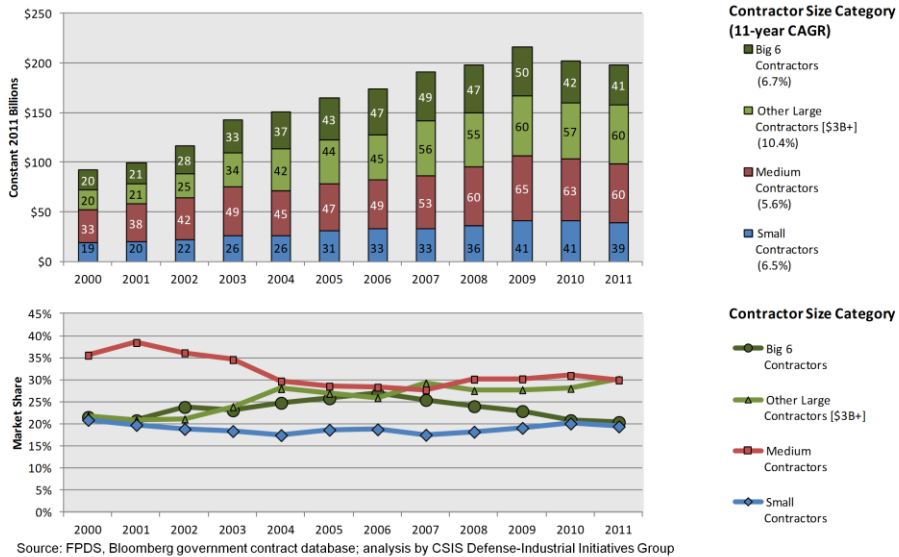
Overall, DoD’s efforts to encourage more competition has had mixed results. Between 2000 and 2010, DoD increased the level of competition in service contract actions only slightly. During this period, the share of service contracts that were competed and received multiple offers rose from 63 percent in 2000 to 64 percent in 2010, and the share service contract actions that were not competed or received only a single offer dropped from 37 percent in 2000 to 36 percent in 2010. However, the overall share of competed contract actions (i.e. those in the categories of “full and open competition”, “limited competition” and “competition with single offer”) rose at a faster pace, from 70 percent in 2000 to 78 percent in 2010.

Over the past year, however, total DoD contract dollars awarded on the basis of competition decreased while the value of contract actions awarded noncompetitively increased. As a result, competitively-awarded contract dollars declined as a percentage of total DoD service contract dollars spent, from 78 percent to 76.2 percent, while noncompetitively awarded contract dollars increased from 22 percent to 23.6 percent of total service contract spending. This rise in non-competed contract dollars is slightly more concerning than in other instances when non-competed contract dollars rose, as 2010-2011 was the first time that competed contract dollars decreased as non-competed contract dollars actually increased year-on-year.

A note regarding methodology: in contrast to recent GAO reports on competition in DoD services contracts, CSIS does not include the “fair opportunity/limited sources” variable when determining extent of competition. Also in contrast to GAO, CSIS does differentiate between contracts receiving multiple bids or single bids in competition.

Between 2009 and 2011, the level of competition for defense services contracts remained stable. While the total value of contracts competed fully and openly declined by 7 percent, the value of those with limited competition remained unchanged. Meanwhile, the value of contracts competed and then awarded after receiving a single offer declined by 13 percent. Contracts awarded under sole source exception clauses decreased in combined value by 10 percent, while those awarded without competition with another exception remained unchanged in value.

### Defense Service Contract Spending by Contractor Size, 2000-2011



For the period observed (2000 to 2011), large contractors had the highest growth rate with an 11-year CAGR of 10.4 percent. The second highest growth rate was for small contractors, with a 6.5 percent 11-year CAGR, on par with the 6.7 percent CAGR for Big 6 contractors (Lockheed, Boeing, Northrop, GD, Raytheon, and BAE). Medium-sized contractors experienced the lowest growth rate, with an 11-year CAGR of 5.7 percent. Large contractors nearly tripled their market value from \$39 billion in 2000 to \$101 billion in 2011, while the Big 6 more than doubled from \$20 billion in 2000 to \$41 billion in 2011; this is down from \$50 billion in 2009, which is notable because the dollars awarded to other large contractors remained stable during that timeframe. Medium-sized contractors and small contractors nearly doubled their market values in 2000-2011, from \$33 billion to \$60 billion and from \$19 billion to \$39 billion, respectively.

In terms of market share, Big 6 contractors declined from 22 percent in 2000 to 21 percent in 2011 (after reaching a high of 27 percent in 2006), other large contractors increased from 22 percent in 2000 to 28 percent in 2011, medium-sized contractors dropped from 36 percent in 2000 to 31 in 2011, and small contractors remained relatively steady at 20-21 percent. The “mid-tier squeeze” is therefore quite evident in DoD services contracting. Interestingly, a CSIS analysis of all federal government service contract actions shows that the “mid-tier squeeze” ended in 2007, and medium-sized companies have since regained some of their market share (though they are not yet back to 2000 levels). Large companies therefore appear to be doing better in the DoD services market than in the civilian government services market.

In the recent years of budgetary downturn (2009-2011), total defense contract dollars for services awarded to small contractors decreased by just under \$3 billion, while those going to medium-sized contractors decreased by \$6 billion. The total value of contract dollars for defense services awarded to the Big 6 contractors decreased by \$9 billion, while other large contractors declined by less than half a billion dollars. The relative market share of the small and medium size categories remained unchanged in 2011 compared to 2009. The big 6 declined from 23 percent in 2009 to 20 percent in 2011, while other large contractors increased from 28 percent in 2009 to 30 percent in 2011.

**Top 20 Defense Services Contractors, 2000-2011**

Rank	2000 Contractors		2011 Contractors	
	Top 20 Contractors in 2000	Obligations in 2011 Millions	Top 20 Contractors in 2011	Obligations in 2011 Millions
1	Lockheed Martin	\$ 8,111	Lockheed Martin	\$ 13,590
2	Boeing	\$ 4,665	Northrop Grumman	\$ 8,459
3	Raytheon	\$ 3,082	Boeing	\$ 6,018
4	TRW [Northrop Grumman]	\$ 2,104	Raytheon	\$ 5,567
5	Northrop Grumman	\$ 1,857	SAIC	\$ 4,730
<b>Subtotal for Top 5</b>		<b>19,818</b>	<b>38,364</b>	
6	General Dynamics	\$ 1,724	General Dynamics	\$ 4,038
7	SAIC	\$ 1,680	L3 Communications	\$ 3,635
8	Computer Sciences Corp.	\$ 1,451	Humana	\$ 3,439
9	Bechtel	\$ 839	TriWest Healthcare	\$ 3,093
10	Halliburton	\$ 753	Health Net	\$ 2,963
11	Foundation Health Federal Services	\$ 643	ITT	\$ 2,945
12	Litton [Northrop Grumman]	\$ 606	Computer Sciences Corp.	\$ 2,926
13	DynCorp International	\$ 604	BAE Systems	\$ 2,891
14	BAE Systems	\$ 587	DynCorp International	\$ 2,861
15	ITT	\$ 587	Fluor	\$ 2,722
16	Newport News Shipbuilding [Northrop Grumman]	\$ 582	Booz Allen Hamilton	\$ 2,543
17	FedEx	\$ 562	KBR	\$ 2,250
18	Johns Hopkins University	\$ 539	CACI	\$ 2,219
19	The Mitre	\$ 523	URS	\$ 1,754
20	Booz Allen Hamilton	\$ 514	Hewlett-Packard	\$ 1,750
<b>Total for Top 20</b>		<b>\$ 32,012</b>	<b>\$ 80,395</b>	
<b>Total for all industry</b>		<b>92,304</b>	<b>198,536</b>	

Source: FPDS, Bloomberg government contract database; analysis by CSIS Defense-Industrial Initiatives Group

To analyze the composition of the DoD service contractor industrial base, CSIS investigated every Dun & Bradstreet Data Universal Numbering System (DUNS) number representing entities awarded \$250 million or more in a given year. Using the Defense Logistics Agency’s Business Identification Number Cross-reference System (BINCS), as well as information from Bloomberg and web searches, each DUNS number was associated with the respective parent entity (company, university, or joint venture) (this association is not provided in the FPDS data). CSIS also researched all the mergers and acquisitions by defense contractors as well as joint ventures among DoD service contractors to ensure that obligated dollars were being assigned to the correct parent companies.

The makeup of the top 7 defense service contractors has been stable, with the only differences between 2000 and 2011 being the disappearance of TRW (acquired by Northrop Grumman) and the entry of L3 into 7<sup>th</sup> place in 2011. However, there has been more significant upheaval within the rest of the top 20, with eight of the remaining contractors in 2011 being newcomers compared to 2000. Health care service providers account for three of these new firms: Humana, TriWest Healthcare, and Health Net. The impact of mergers and acquisitions is also evident, as three of the top 20 contractors in 2000 were later acquired by Northrop Grumman: TRW, Litton, and Newport News Shipbuilding.

Overall, the top 5 contractors’ share of the market has declined from 21 percent in 2000 to 19 percent in 2011, while the share held by the top 20 has increased from 35 percent in 2000 to 40 percent in 2011.

## Appendix 1: Breakdown of CSIS Service Areas

- **Information and communications technology (ICT) services:** All of service codes D (Automatic data processing and telecommunication services) and L (Technical representative services), and elements of service codes H (Quality control, testing, and inspection services), J (Maintenance, repair, and rebuilding of equipment), K (Modification of equipment), N (Installation of equipment), S (Utilities and housekeeping services), and W (Lease or rental of equipment).
- **Professional, administrative, management services (PAMS):** All of service codes B (Special studies and analyses (not research and development), C (Architect and engineering services—construction), R, T, and U (Education and training services), and elements of service codes A (Research and development), H (Quality control, testing, and inspection services), and V (Transportation, travel, and relocation services).
- **Research & development (R&D):** Elements of service code A (Research and development).
- **Equipment-related services (ERS):** Elements of service codes J (Maintenance, repair, and rebuilding of equipment), K (Modification of equipment), N (Installation of equipment), P (Salvage services), V (Transportation, travel, and relocation services), and W (Lease or rental of equipment).
- **Facility-Related Services & Construction (FRS&C) services:** All of service codes E (Purchase of structures and facilities), F (Natural resources management), M (Operation of government-owned facility), X (Lease or rental of facilities), Y (Construction of structures and facilities), and Z (Maintenance, repair, or alteration of real property), and elements of service codes S (Utilities and housekeeping services) and P (Salvage services), .
- **Medical services:** All of service codes G (Social services) and Q (Medical services).

13

### Notes on service codes:

**H (quality control, testing, and inspection services):** primarily attributed to PAMS; exceptions are quality control, testing, and inspection services for ICT systems: communication equipment, fiber optics, and automated data processing equipment and supplies (classified as ICT).

**J (maintenance, repair, and rebuilding of equipment):** primarily attributed to ERS; exceptions are maintenance, repair, and rebuilding services for ICT systems: communication equipment, fiber optics materials and components, and automated data processing equipment and supplies (classified as ICT).

**K (modification of equipment):** primarily attributed to ERS; exceptions are modification services for ICT systems: communication equipment, fiber optics materials, and automated data processing equipment and supplies (classified as ICT).

**N (installation of equipment):** primarily attributed to ERS; exceptions are installation services for ICT systems: communication equipment, fiber optics materials, and automated data processing equipment and supplies (classified as ICT).

**P (salvage services):** demolition of buildings, structures, and facilities classified as FRS&C; disposal of surplus property, salvage of aircraft and marine vessels, as well as other salvage services (classified as ERS).

**S (utilities and housekeeping services):** primarily attributed to FRS&C; exception is utility services for telephones and/or communications (classified as ICT).

**V (transportation, travel, and relocation services):** freight and other transport services for things (listed under the V1\*\* codes) classified as ERS; transport services for passengers (including ambulances, taxicabs, recruitment, lodging, navigational aid and pilotage service, listed under the V2\*\* codes) relocation and travel agent services (listed under V3\*\* codes) and “other listed under V999 code) classified as PAMS.

**W (lease or rental of equipment):** primarily attributed to ERS; exceptions are lease and rental services for ICT systems: communication equipment, fiber optics materials, and automated data processing equipment and supplies (classified as ICT).

## Appendix 2: DoD vs. CSIS Service Category Comparison

Product or Service Code	CSIS Service Category	DoD Portfolio
A - Research & Development	PAMS and R&D	R&D
B - Special Studies & Analyses - Not R&D	PAMS	Knowledge-based Services
C - Architect & Engineering - Construction	PAMS	FRS
D - Automatic Data Processing & Telecommunication	ICT	ECS
E - Purchase of Structures & Facilities	FRS&C	FRS
F - Natural Resources & Conservation	FRS&C	FRS
G - Social Services	MED	FRS
H - Quality Control, Testing, & Inspection	ICT and PAMS	ECS, ERS, and FRS
J - Maintenance, Repair, & Rebuilding of Equipment	ERS and ICT	ECS, ERS, and FRS
K - Modification of Equipment	ERS and ICT	ECS, ERS, and FRS
L - Technical Representative	ICT and PAMS	ECS, ERS, and FRS
M - Operation of Government Owned Facilities	FRS&C	FRS
N - Installation of Equipment	ERS and ICT	ECS, ERS, and FRS
P - Salvage Services	ERS and FRS&C	ERS and FRS
Q - Medical Services	MED	MED
R - Professional, Administrative, & Management Support	PAMS	ECS and Knowledge-based Services
S - Utilities & Housekeeping Services	FRS&C and ICT	ECS and FRS
T - Photographic, Mapping, Printing, & Publications	PAMS	Knowledge-based Services
U - Education & Training	PAMS	Knowledge-based Services
V - Transportation, Travel & Relocation	ERS and PAMS	Transportation Services
W - Lease or Rental of Equipment	ERS and ICT	ECS, ERS, and FRS
X - Lease or Rental of Facilities	FRS&C	FRS
Y - Construction of Structures & Facilities	FRS&C	Construction Services
Z - Maintenance, Repair, or Alteration of Real Property	FRS&C	FRS