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STRUCTURE AND DYNAMICS OF THE  
U.S. FEDERAL PROFESSIONAL  
SERVICES INDUSTRIAL BASE  
1995-2007

DEFENSE-  
INDUSTRIAL  
INITIATIVES GROUP



Structure and Dynamics  
of the  
U.S. Federal Professional Services  
Industrial Base  
1995–2007

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February 2009

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# Executive Summary

The U.S. government has a permanent and growing reliance on contracts with the private sector for a wide range of professional and support services. For the past three years, CSIS research has tracked the trends driving the professional services industry since 1995. This report analyzes these trends through 2007, the most recent year for which reliable data are available. Data are from the Federal Procurement Data System (FPDS). As 2008 data are accumulated in the summer of 2009, we will update these analyses on our Web site ([www.csis.org/isp/diig](http://www.csis.org/isp/diig)).

On the basis of this analysis, we conclude that the macro trends of the past decade continued in 2006 and 2007. For the fourth year in a row, providing professional services to the federal government has represented a larger market than selling hardware to the government. This is a historic, unprecedented shift in modern times. However, growth in federal service contracts did slow between 2006 and 2007. That trend is more reminiscent of the mid-1990s than the 2002–2006 period and could indicate a leveling-off of the market.

On the policy level, the past few years have witnessed a growing awareness on the part of policymakers of the industry's magnitude and importance. Congress, the media, and even some voices inside the executive branch have raised significant policy questions about the government's reliance on, and the roles of, the private sector industry. Policy concerns are likely to continue and perhaps increase in 2009.

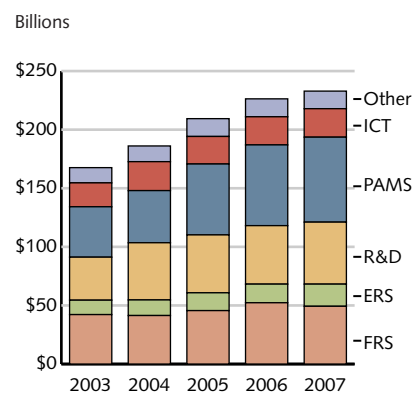
During the past 13 years, the industry expanded at a compound annual growth rate (CAGR) of 7 percent a year, from \$102 billion in 1995 to \$233 billion in 2007 [  ]. The past five years (2003–2007) saw a stronger 9 percent CAGR.

The fastest-growing segments during the past 13 years were professional, administrative, and management services (PAMS) and information and communications technology (ICT) services, both of which delivered an 11 percent CAGR. During the past five years, however, the PAMS segment grew by a CAGR of 14 percent whereas the ICT segment grew by 4 percent during the same period.

The research and development (R&D) segment also grew at a steady pace in 2003–2007 (10 percent CAGR) although the compound annual growth over the entire 13-year period has been 6 percent.

Expansion in the equipment-related services (ERS) segment was dramatic during the past five years, most likely driven by the current conflicts in Iraq and Afghanistan, and showed a CAGR of 11 percent. However, facilities related services (FRS) grew by less than 4 percent during that period. Details on these segments are found in the report.

**Services Contract Spending, by Segment, 2003–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

The largest segments within the federal professional services industry are PAMS, which accounted for \$72.5 billion worth of contracts in 2007, up from \$20.4 billion in 1995 [ [line graph](#) ]; R&D, which accounted for just under \$53 billion in 2007 compared with \$26.5 billion in 1995 [ [line graph](#) ]; and FRS, which grew to \$49 billion in 2007 from \$32 billion in 1995 [ [line graph](#) ].

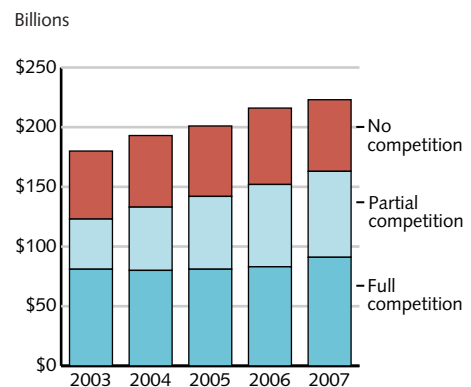
Given its large size and high growth rate, the PAMS segment is likely to remain the largest part of the industry. It is also the segment that will draw policy interest as the one with services most similar to those also provided by the federal government workforce.

The Department of Defense remains the biggest procurer of professional services, accounting for approximately 60 percent of total federal dollars spent on professional services in 2005, 2006, and 2007. Another stable trend during the past three years has been that the Department of Defense, the Department of Energy, and NASA have remained the Top 3 government agencies in terms of value of professional services contracts awarded; they continue to account for approximately three-quarters of the federal professional services market.

## Competition

We assessed contract actions by the amount of competition. Generally, contracts with high dollar values remain more likely to be fully or partially competed. Awards with full and open competition involving at least two bidders (which we refer to as “full-competition awards”) account for the greatest dollar amounts and the largest average awards. Partial-competition awards have seen strong growth during the past five years in dollars awarded and even stronger growth in the number of awards, with the result that the average contract action size during the past five years has actually shrunk by 8 percent annually. The number of awards without competition (which we refer to as “no-competition awards”) has risen significantly in the past five years, but the total dollar amount of these no-competition awards has grown less than the overall annual growth rate of 9 percent. The total amount of dollars awarded for no-competition actions has been relatively flat, and the average contract action size of no-competition contracts has fallen steadily, from \$771,000 in 1995 to \$153,000 in 2007 [ [line graph](#) ].<sup>1</sup>


**Levels of Competition for Services Contract Actions, 2003–2007**





Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

## Contract Type

We also assessed contract data by contract type: fixed-price or cost-based. As a proportion of awards, the dollar amount of all types of fixed-price contracts has decreased slightly during the past five years, from 40 percent to 35 percent of all contract action dollars awarded. All forms of cost-based contracts have also fallen, from 50 percent of contract action dollars in

2003 to 45 percent in 2007, with time-and-materials or labor-hours contracts increasing from 9 percent to 10 percent of contract action dollars. Overall, although fixed-price actions have been much more common in recent years, the dollars awarded through them have been relatively flat to declining, so the average contract action size of fixed-price contracts has fallen steadily from less than \$186,000 in 1995 to just over \$100,000 in 2007 [  ].<sup>1</sup>

## Contract Value

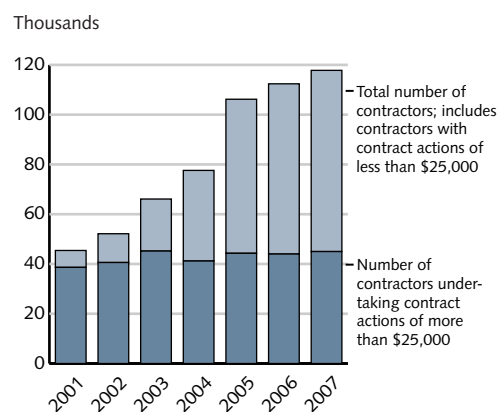
With the number of contract actions growing faster than the value of contracts awarded, the average value of contract actions has decreased from \$385,000 in 1995 to \$209,000 in 2007 [  ].<sup>1</sup> The value of the average contract has also dropped from \$1 million in 1995 to \$403,000 in 2007 [  ].<sup>1</sup> The declining contract and contract action values imply that firms often must compete more just to sustain steady revenues.

## Industrial Base

The number of firms in the professional services industrial base remained almost unchanged, at 45,000 contractors, between 1995 and 2001. Between 2001 and 2007, however, the total number of contractors in the industry increased from nearly 45,000 to 118,000 firms. A more detailed analysis of the contract base reveals that most of the growth has come from the entry of firms undertaking small (under \$25,000) contract actions. An analysis of the 2007 data indicates that out of the hundred thousand-plus professional services contractors, only 27,000 are not small companies (as defined by the Small Business Administration); of these, only 101 firms have \$100 million or more of services revenue (by comparison, in 1995 there were some 14,000 medium and large companies, and 101 with more than \$100 million of services revenue; in 1999 there were some 12,000 medium and large companies, of which 95 received more than \$100 million of services revenue). Examining the data from this perspective may imply that the vast majority of firms in the industry are small firms or perhaps medium-sized firms that undertake relatively little federal professional services work relative to their overall corporate size.

The industry has also become more horizontally integrated during the past decade. Firms in all segments of the industry have enlarged their presence in the PAMS segment, ICT companies are increasingly participating in the FRS segment, and the FRS providers are expanding their presence in the ERS segment. Examined differently, the professional services industry and the defense hardware–defense platform industry have become more intertwined as the large platform primes have made significant acquisitions and pursued work in the professional services market.

**Number of Services Contractors, 2001–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

The other major shift in the structure of the industry has been the increase in the number of heavy engineering and construction firms in the ranks of the Top 20 contractors, a trend likely driven by the reconstruction efforts in Iraq and Afghanistan.

Furthermore, critical mass has changed for the industry. In 1995, the 20th-largest contractor had \$360 million in professional services contract awards from the federal government (0.35 percent of the industry total), but in 2007 a firm needed almost \$1.4 billion of services awards to be the 20th-largest contractor (0.6 percent of the industry total). It is interesting, though, that the market share for the Top 5 services contractors has remained relatively steady: in 1995 it was 19 percent (with \$19.5 billion of service revenue), and in 2007 it was also 19 percent (with close to \$44 billion).

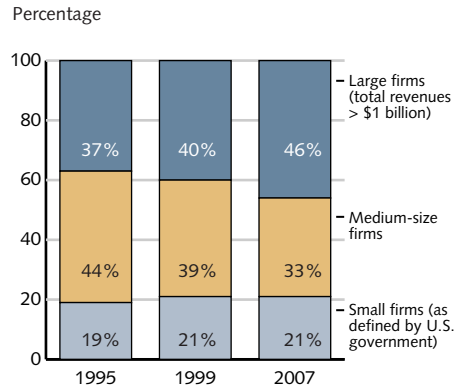
When the market shares held by the small (as designated by FPDS), large (that is, with an annual revenue greater than \$1 billion), and medium (any not classified as “small” or “large”) companies in the industry are examined, it is clear that those in the middle tier have suffered an erosion of their relative share. In 1995, middle-tier companies captured 44 percent of the total value of federal professional services contracts. By 2007, the middle-tier companies were able to capture only 33 percent of that value.

Small-business set-aside laws and other policies assisting small firms have clearly worked in the professional services industry. Small companies have sustained a 19–22 percent market share in the value of prime contracts, and their share of the market is larger if the value of subcontracts is included. The large companies in this industry have been particularly active via mergers and acquisitions and have been able to increase their market share from 37 percent of the total market in 1995 to 46 percent in 2007. Thus, the middle tier has been squeezed from above by consolidation and from below by small businesses holding on to their share of the market, and in 2006 and 2007 we saw the first decrease in the number of medium-sized companies undertaking significant (\$25,000 or larger) federal contracts. How to replenish the middle tier, thereby generating competition and innovation, remains a key strategic and policy issue for the industry.

The federal professional services market and the industrial base that supports it have experienced a big change in past five years. Furthermore, there is nothing in the FPDS data analyzed in this report that suggests that things are going to change in the near future.

The mid- to long-term analysis depends largely on developments in Iraq and Afghanistan. What happens after a significant drawdown of troops in one or both countries? This question remains open because we do not know whether the growth in business and in the number of new players in the federal professional services market has been driven by the complex nature of the work or the larger amounts of money available for undertaking it.

**Market Share of Small, Medium, and Large Firms by Value of Contract, 1995, 1999, 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

1 The amount for 2007 does not include some 2.3 million contract actions awarded by the Department of Veterans Affairs for rental of medical equipment, which would have drastically skewed the analysis. See full report for additional details.

# List of Acronyms

ADP	automatic data processing
BOA	basic ordering agreement
BPA	blanket purchase agreement
CAGR	compound annual growth rate
DHS	Department of Homeland Security
DOD	Department of Defense
DOE	Department of Energy
DOEd	Department of Education
DOI	Department of the Interior
DOJ	Department of Justice
DOL	Department of Labor
DOS	Department of State
DOT	Department of Transportation
ERS	equipment-related services
FAR	Federal Acquisition Regulation
FPDS	Federal Procurement Data System
FPDS-NG	Federal Procurement Data System-Next Generation
FRS	facilities-related services
FSC	federal supply classification
GAO	Government Accountability Office
GSA	General Services Administration
GWAC	government-wide acquisition contract
HHS	Department of Health and Human Services
HUD	Department of Housing and Urban Development
ICT	information and communications technology
IDC	indefinite delivery contract
IDIQ	indefinite delivery indefinite quantity
NASA	National Aeronautics and Space Administration
PAMS	professional, administrative and management support
PPIRS	Past Performance Information Retrieval System
R&D	research and development
SETA	scientific engineering and technical assistance
VA	Department of Veterans Affairs

# What Is the Professional Services Industrial Base?

## In this chapter:

- Definition of the federal professional services industrial base
- Methodology of this study
- Description of primary professional services categories
- Definition of small, medium, and large companies

For the purpose of this study, the U.S. federal professional services industry is defined as all companies and individuals providing contract services to U.S. federal government departments and agencies. Contract services include all types of services except those that are:

- Tied directly to the production of weapons and other hardware systems and therefore categorized as products;
- Related to the construction of facilities or structures; and
- Designed for the delivery of patient-related medical care or health care services.

## Methodology of the Study

Most of the data used for this study were derived from the Federal Procurement Data System (FPDS). This government database covers all federal contract actions that have been awarded during a particular year by approximately 70 executive branch agencies (the largest exceptions are the U.S. Postal Service and the Federal Aviation Administration). Initially created in 1979 by the Department of Defense (DOD), the FPDS has been managed by the General Services Administration (GSA) since 1980. In 2004, the database was significantly restructured and renamed FPDS–Next Generation (FPDS-NG). The CSIS study team was, in most cases, able to straightforwardly utilize the pre-2004 methodology when using the FPDS-NG data.

The CSIS study team analyzed all federal contracts awarded between the years 1995 and 2007. Note that we use fiscal and not calendar years. Because the structure of the FPDS database has changed over time, it was necessary for the study team to build a new database for the 13-year period and reconcile the differences in the data. The study team created a smaller “professional services” database comprising nearly 10 million contract actions by eliminating those contract actions that were awarded for equipment as well as those that were awarded for ser-

VICES that were considered to be outside the scope of this study (construction and patient-related medical or health care services).

To obtain a better degree of granularity when analyzing the data, the team chose five primary services categories to represent broad areas of professional services types. The categories were created with the federal supply classification (FSC) codes. All services—including research and development work—are assigned by the federal government a four-digit code, sometimes referred to as an “A–Z code,” which identifies 24 main categories of services. The list of all 24 FPDS services categories can be found in appendix A.

The five primary categories created by the CSIS study team for this study are:

- Information and communications technology (ICT) services: Automatic data processing (ADP) services and telecommunications services. This category includes all contracts with FSC codes in category D (ADP and telecommunications).
- Professional, administrative, management services (PAMS): Studies and analyses that are not considered research and development (R&D); architect and engineering services; quality control, testing, and inspection; and technical representative services. This category includes all contracts with FSC codes in categories B (non-R&D studies and analyses), C (architect and engineering), H (quality control, testing, and inspection), L (technical representatives), and R (professional, administrative, and management support) as well as selected codes within category A (includes only codes in category A that end with the digit 6, which designate R&D management and support).
- Research and development (R&D): Basic and applied research, experimental and advanced development, engineering, and operational systems development. This category includes all contracts with FSC codes in category A (R&D), except those ending with the digit 6 (digit 6 represents R&D management and support services, which are included in the PAMS category).
- Equipment-related services (ERS): Installation, lease or rental, maintenance, repair, and rebuilding and modification of equipment. This category includes all contracts with FSC codes in categories J (maintenance, repair, and rebuilding of equipment), K (modification of equipment), N (installation of equipment), and W (lease or rental of equipment).
- Facilities-related services (FRS): Purchase, lease or rental, operation and maintenance of facilities. This category includes all contracts with FSC codes in categories E (purchase of structures and facilities), M (operation of government-owned facility), S (utilities and housekeeping), X (lease or rental of facilities), and Z (maintenance, repair, or alteration of real property).

All contracts with other FPDS codes were included in the category of “other.” These include services for natural resources management; social services; salvage services; photographic, mapping, printing, and publication services; education, training, and transport; and travel and relocation. However, they have been included in the calculations of total federal professional services.

This year’s study includes several new charts and has updated the methodology for some of the figures presented in previous reports. Table 2.1 and figures 3.9 and 3.11 now include data about contracts where they once used contract actions. In addition, figures 3.12, 3.13, 3.14, 5.6, 6.6, 7.6, 8.6, and 9.6 now use a \$25,000 contract cutoff rather than a contract action cutoff

(note that a contract may be made up of several contract actions). This change was made in response to reader interest in data on contracts and as a reaction to the burgeoning number of small contract actions. For those figures with data prior to 2005, the online FPDS query tool (available at <https://www.fpds.gov>) was used to generate historical data. That tool was also used to rework figures 3.3 and 3.4 with the new categorization scheme put in place in 2004 and retroactively made available for prior years.

Any analysis based on the 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” [GAO-04-295R] and the September 27, 2005, report, “Improvements Needed to the Federal Procurement Data System—Next Generation” [GAO-05-960R]). In addition, the FPDS data for past years are constantly updated over time. Although fiscal year 2005 is long since closed, more than \$100 billion dollars worth of entries for that year were modified in 2008 (this explains the discrepancies between the numbers for 2005 presented in this report and those in the previous CSIS report of May 2007). Such changes to FPDS may well be worthwhile but should be monitored and clearly identified owing to the potential for misunderstanding and abuse. The data used in this report for 2005 through 2007 were downloaded on June 2, 2008. Despite its flaws, FPDS is the only comprehensive data source of government contracting activity, and as long as any analysis is focused on trends and order-of-magnitude comparisons it is more than adequate.<sup>1</sup>

## Small, Medium, and Large Companies

To analyze the breakdown of competitors in the market into small, medium, and large companies, the CSIS team assigned each contractor in the database to one of these size categories. Any company designated as small by the FPDS database—according to the criteria established by the federal government—was categorized as such. Companies with annual revenue of more than \$1 billion were classified as large. All companies not classified as either small or large were placed in the medium category. In its analysis of the companies in the federal professional services market, the study team made every effort to consolidate data related to subsidiary companies and merged companies into the parent company by year. For example, many of Boeing’s subsidiaries and predecessor companies are listed separately in the FPDS, but they were combined into a single Boeing entry in the CSIS professional services database. This enabled the study team to analyze more accurately the professional services industrial base, the number of players in it, and their level of activity.

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1. See Chapter 4 for recommendations on improving FPDS.

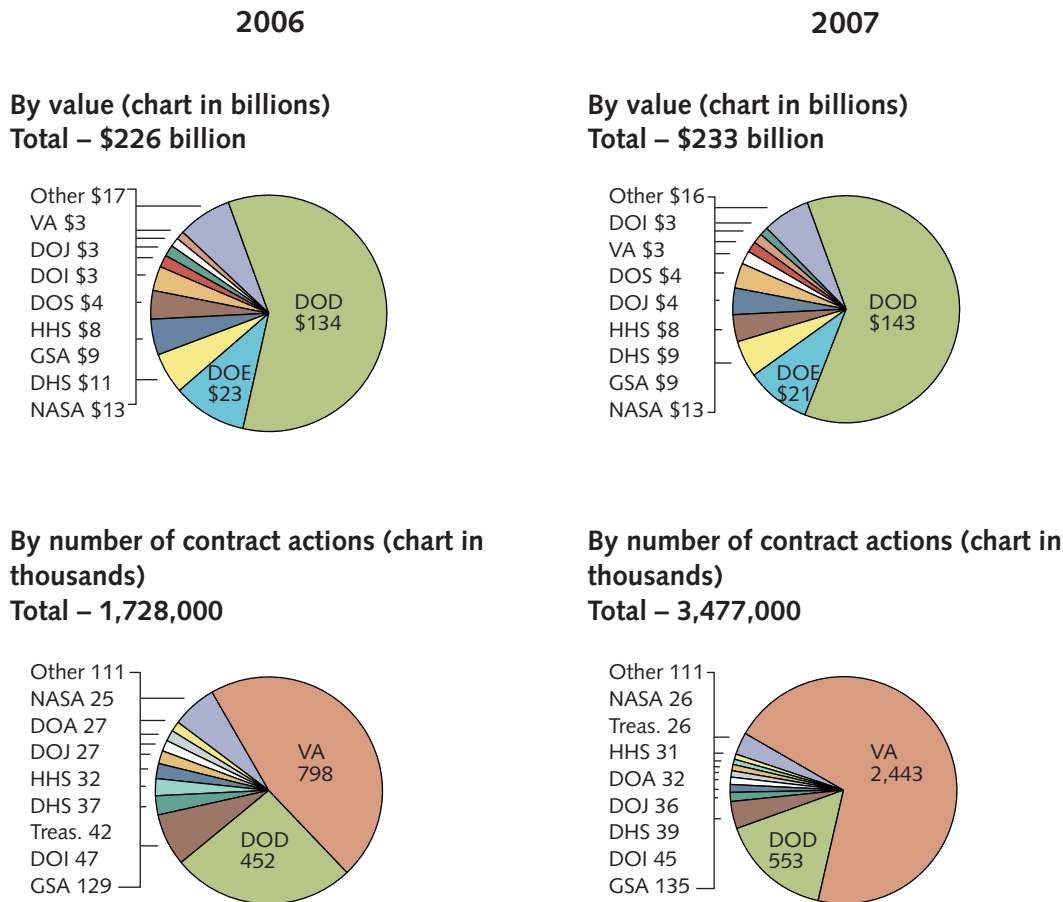


# Federal Professional Services Industry Today

**In this chapter:**

- Overall 2007 data for federal professional services contracting
- Top 10 customers by value and by number of contract actions
- Separation of defense from civilian federal professional services
- Value and number of contract actions for each of the main services

Figure 2.1. Top 10 Customers in the Federal Professional Services Market, 2006 and 2007



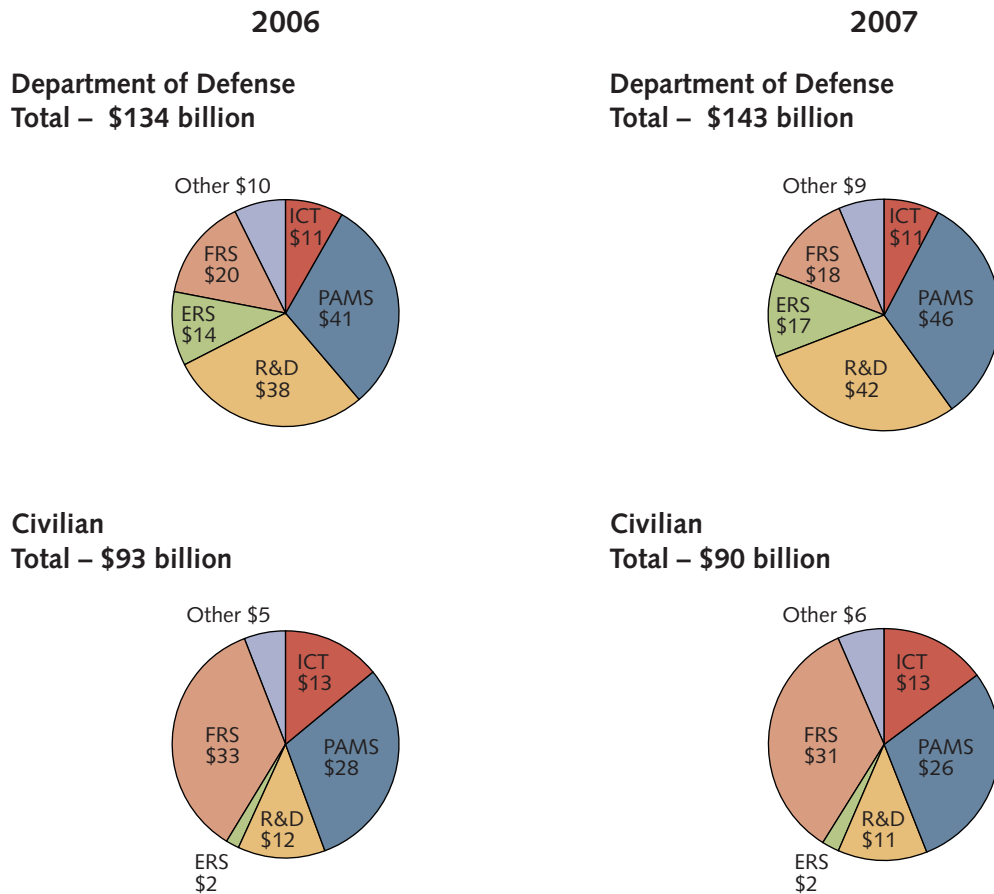
Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Professional Services Market in 2007 — Figure 2.1

The purchasing of services by the federal government represents a significant market today and makes up a substantial portion of annual U.S. federal expenditures. In 2007, the federal government awarded \$233 billion worth of contracts for professional services. This amount was awarded via approximately 3.5 million contract actions. In fact, during the past years the federal government has been currently spending more money on purchasing services than on buying hardware and goods. The sharp rise in the number of contract actions between 2006 and 2007 is to a great extent explained by a spike in contract actions awarded by the Department of Veterans Affairs (VA), primarily in the ERS sector. This is due to a department-wide initiative to provide more outpatient services via private contractors, which has resulted in a flurry of more than 2.3 million contract actions awarded for medical equipment rental and medical equipment maintenance.

DOD continued to be the largest federal government consumer of services in 2007, with \$143 billion worth of contracts, more than 60 percent of the total market. A distant second was the Department of Energy (DOE), with \$21 billion or 9 percent of the market. NASA is the

**Figure 2.2. Federal Professional Services Markets, Department of Defense Compared with Civilian, 2006 and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

third-largest government customer and accounts for \$12 billion, or 5 percent of the market. By value, the top three customers make up 76 percent of the market.

By number of contract actions, the largest three awarders of services contracts are the VA with 2.4 million contract actions let (70 percent of total contract actions awarded), the DOD with 553,000 contract actions (16 percent), and the GSA with 135,000 (4 percent of total).

### Defense and Civilian Contracting Compared — Figure 2.2

In the past four years, growth in the acquisition of professional services by the Department of Defense has outstripped that of the civilian agencies. Although this growth has slowed for both sectors in 2006–2007, growth for DOD (at almost 7 percent) outstripped the slowly declining spending by civilian agencies. This may be a reflection of the phenomenon of increased defense spending beginning to eat into civilian spending.

The two largest segments within the DOD in 2007 are research and development (R&D) and professional, administrative, and management support (PAMS), each accounting for about 30 percent of the budget spent on professional services. Both categories saw more than \$3 billion each in increases between 2006 and 2007. Civilian agencies, in contrast, were heavy

users of FRS in 2007, which accounted for slightly under 35 percent of dollars spent. This is heavily skewed by the contracts for the management of DOE facilities. Civilian agencies are also large consumers of PAMS; these account for 29 percent of all professional services procured. It is interesting to note that civilian agencies contract out more information and communications technology (ICT) services than does the DOD.

Table 2.1. Data for U.S. Professional Services Market, 2007

Service category	Value (\$, billions)	Number of actions	Average action (\$)	Average contract (\$)	Number of contractors <sup>a</sup>
ERS	18.90	2,516,654	7,511	162,190	23,890
FRS	49.33	324,119	152,194	258,485	37,407
ICT	24.29	119,255	203,673	586,976	8,591
PAMS	72.52	310,500	233,568	453,317	42,081
R&D	52.87	87,575	603,664	1,390,696	11,824
Other	14.98	118,853	126,023	193,705	26,024
Total	232.89	3,476,956	66,980	380,039	117,739

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

a. Some contractors are active in more than one service category.

## Overview of Professional Services Market Segments — Table 2.1

Table 2.1 provides key data for 2007, both overall and for each of the five main services categories.

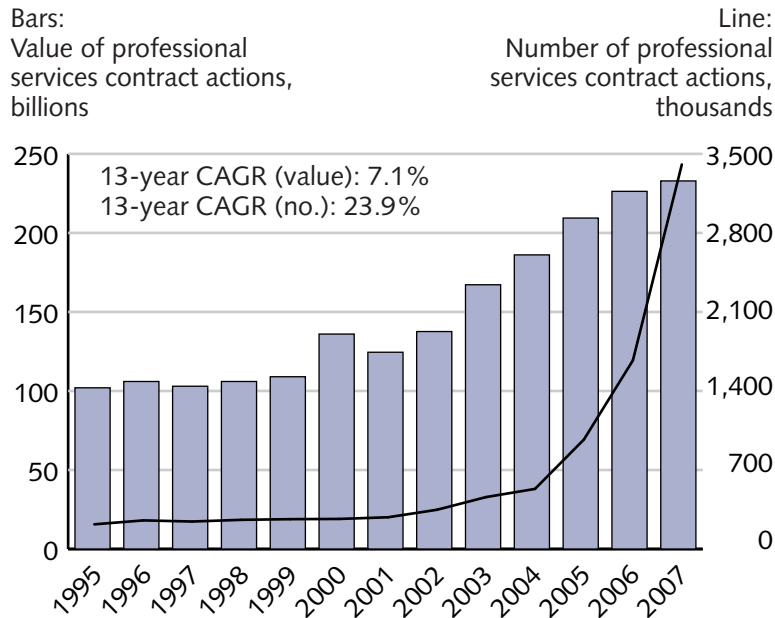
As noted, the largest segments in terms of value are PAMS, R&D, and FRS, with \$72.5 billion, \$53 billion, and \$49 billion worth of contract actions, respectively. The largest numbers of contract actions by far were awarded in the ERS sector, primarily owing to the aforementioned VA initiative. In addition, the FRS and PAMS categories continue to be two markets with large numbers of small tasks awarded. It therefore stands to reason that the sizes of the average contract actions in the ERS, FRS, and PAMS segments were at the lower end of the range, \$7,511, \$152,194, and \$233,568, respectively. It is interesting that the average contract action in the ICT sector also dropped in 2007, to \$203,673. The largest average contract actions were found in the R&D segment, at \$603,664 per contract action, which is also a decline from previous years.

The largest numbers of players were found in the PAMS and FRS segments, further highlighting the fragmented nature of these markets—many players pursuing large numbers of small contracts. The R&D sector represents the other end of the spectrum: relatively fewer competitors (just over 11,800) chasing fewer but larger contract actions.

# Evolution of the Federal Professional Services Industry, 1995–2007

## In this chapter:

- Market growth trends by service type
- Types of contract actions, by both value and number of contract actions
- Distribution of contract actions
- Trends in growth in the number of contractors by service type
- Distribution of contractors among categories
- Trends in distribution of market share to small, medium, and large firms
- Top 20 contractors

**Figure 3.1. Growth of the Federal Professional Services Market, 1995–2007**

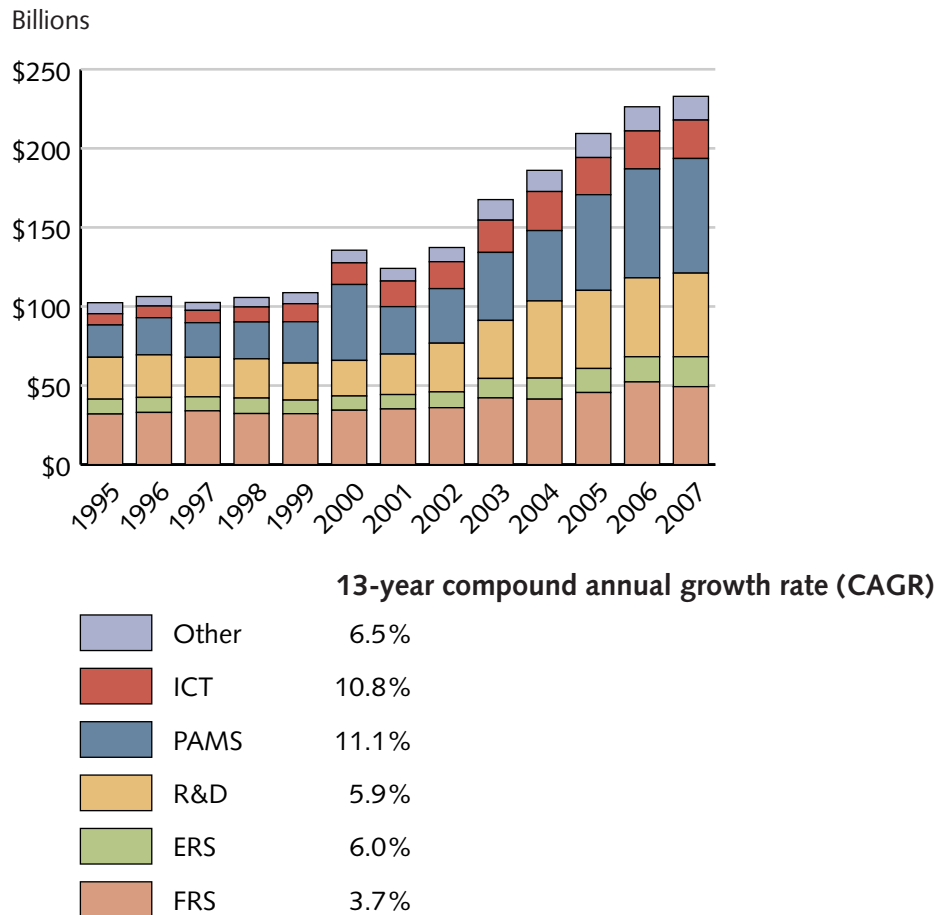
Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Growth in Federal Services Contracting — Figure 3.1

During the past 13 years (1995–2007) the federal professional services market has seen a marked increase in both the total value and the total number of contract actions. Figure 3.1 shows that the total value of contract actions grew from \$102 billion in 1995 to \$233 billion in 2007, representing a compound annual growth rate (CAGR) for value of contract actions of 7 percent. The total number of contract actions soared during this same time period from 265,000 to 3.5 million, delivering a CAGR for number of contract actions of 24 percent.

Growth in the federal professional services market has been lumpy. A close examination of figure 3.1 shows that the market was essentially flat at around \$100 billion until 2000, despite a decade of policy recommendations that the government should outsource more of its service functions in order to create more efficiencies. The first spike in demand was in 2000, as the government turned to outside contractors to help deal with the Y2K computer conversion problem. Contracts declined in value and number in 2001, until the events of September 11, 2001, and the wars in Afghanistan and Iraq again created the need to turn to outside providers for services. In the five-year period of 2003–2007, the total value of professional services bought by the federal government rose from \$167 billion to \$233 billion.

**Figure 3.2. Growth Trends in the Federal Professional Services Market, by Service Category, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

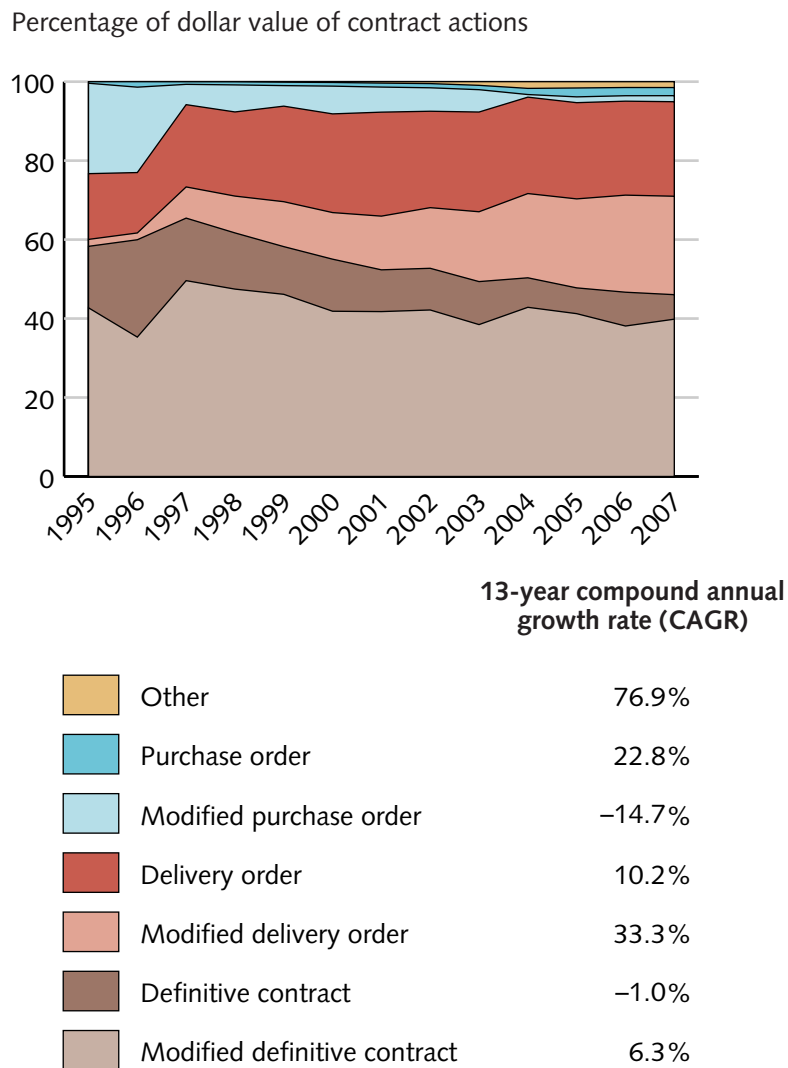
**Growth by Market Segment — Figure 3.2**

During the past 13 years, the fastest-growing market segments were the ICT services and the PAMS categories, with 11 percent compound annual growth in each. However, the growth during the most recent five years has been 14 percent in PAMS and only 4 percent in ICT.

Although they are very large and together represent almost half the services market, the R&D and FRS segments generated much slower growth: 6 percent for R&D, and only 4 percent for FRS. ERS generated 6 percent growth.

The year 2005 was the first since 2001 in which year-over-year growth was in the single digits, dragged down by declines in the ICT segment. The data for 2006 and 2007 indicate that the deceleration continued with stagnant ICT and FRS segments, although the PAMS and ERS segments saw very robust growth.

**Figure 3.3. Types of Federal Professional Services Contracting Vehicles, by Percentage of Dollar Value of Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

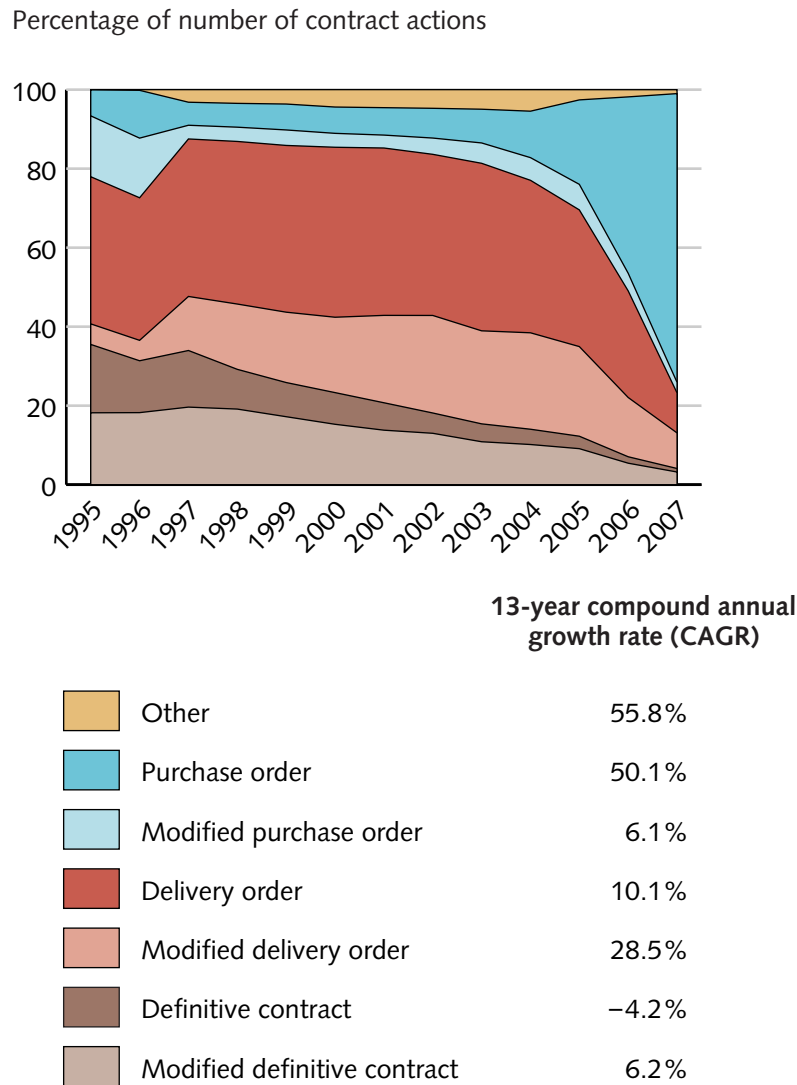
### Evolution of Contracting Vehicles — Figures 3.3 and 3.4

Figures 3.3, 3.4, and 3.5 provide the makeup of overall contract actions awarded by type of contract. These figures show two important trends in the evolution of federal services contract types: modifications to existing delivery orders have been increasing at a fast pace, and the same is true for large, multiple-award contracts.

Within this growing marketplace, the federal government has been changing the way it contracts for services. There are six major categories of contract action types:

- Definitive contract,
- Modified definitive contract,

**Figure 3.4. Types of Federal Professional Services Contracting Vehicles, by Percentage of Number of Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

- Delivery order,
- Modified delivery order,
- Purchase order,
- Modified purchase order.

Note that the Other category includes the minor categories (in terms of total dollar value awarded): orders under basic ordering agreement (BOA), orders under blanket purchase agreements (BPA), indefinite delivery contracts (IDC), government-wide acquisition contracts (GWAC), and federal supply services contracts (FSS).

The first important trend is that in the past 13 years, modifications to existing contracts (definitive contracts, delivery orders, and purchase orders) represent approximately two-thirds of the market in dollar terms. This implies that in any given year, a large share of the market is already spoken for and that incumbents on existing programs retain a significant presence in the market. In addition, the only two categories of contract action types that declined during 1995–2007 have been definitive contracts (1 percent annual decline in dollar volume) and modified purchase orders (15 percent annual decrease in dollar volume), and the decrease in use has accelerated in the past five years (an 8 percent and 23 percent annual decline, respectively).

The second important trend is where the opportunities for new entrants have developed. Although the major category that has seen most growth (modified delivery order) saw a 33 percent annual growth in the 13-year period (16 percent in the past five years), there has been an even more dramatic growth in the use of the newer, larger, multiple-award contract vehicles. Represented in the “Other” category because they are too small to register independently on the chart, the dollar volume associated with these contracts vehicles grew at a 77 percent compound annual growth rate during 1995–2007 although the growth rate for the most recent five years of that period was much lower (20 percent). Even given this growth rate, however, only 1.5 percent of all federal dollars awarded for professional services used multiple-award contracts as the contract vehicle.

### Details of Multiple-Award Contract Vehicles — Tables 3.1 and 3.2

**Table 3.1. Growth in Contract Actions and Compound Annual Growth Rates for Less-Common Contract Vehicles, 2003 and 2007**

Contract vehicles	2003	2007	CAGR 2003–2007
Basic ordering agreements	3,798	1,391	–22%
Blanket purchase agreements	8,635	23,628	29%
Federal supply services contracts	2,543	1,255	–16%
Government-wide acquisition services contracts	88	114	7%
Indefinite delivery contracts	15,173	9,904	–10%

**Table 3.2. Growth in Value and Compound Annual Growth Rates for Less-Common Contract Vehicles, 2003 and 2007, millions of dollars**

Contract vehicles#	2003	2007	CAGR 2003–2007
Basic ordering agreements	\$3.27	\$21.13	59%
Blanket purchase agreements	\$837.88	\$1,605.46	18%
Federal supply services contracts	\$0.08	\$0.78	77%
Government-wide acquisition services contracts	\$4.24	\$16.04	39%
Indefinite delivery contracts	\$836.63	\$465.17	–14%

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

CAGR = compound annual growth rate

The growth in the use of agency- and enterprise-wide multiple-award contract vehicles raises interesting policy questions. Until recently, no inter-agency or intra-agency review was undertaken when they were created, which often resulted in a duplication of efforts (see below). For example, various departments and agencies issued enterprise-wide contracts to procure IT services (rather than leveraging government-wide vehicles), despite the fact that most of these services are almost identical across all of government.

The phenomenon of proliferating agency-, enterprise-, and government-wide contracting vehicles is actually raising transaction costs for industry as well as government. To participate in the services industry now and in the future, it is mandatory for companies to compete for and participate in one or more of these multiple-award or federal schedule contract vehicles. Furthermore, the competitive implications of the growth in GWAC and indefinite delivery contract types is that industry participants must now compete twice—once to qualify for the overarching contracting vehicle and again for each major task under these IDCs. Because half the market is represented by modifications to existing contracts and opportunities are reduced for winning new definitive contracts, a company that fails to win a position in one of these broad overarching vehicles has increasingly limited opportunities to enter the market, except through mergers and acquisitions.

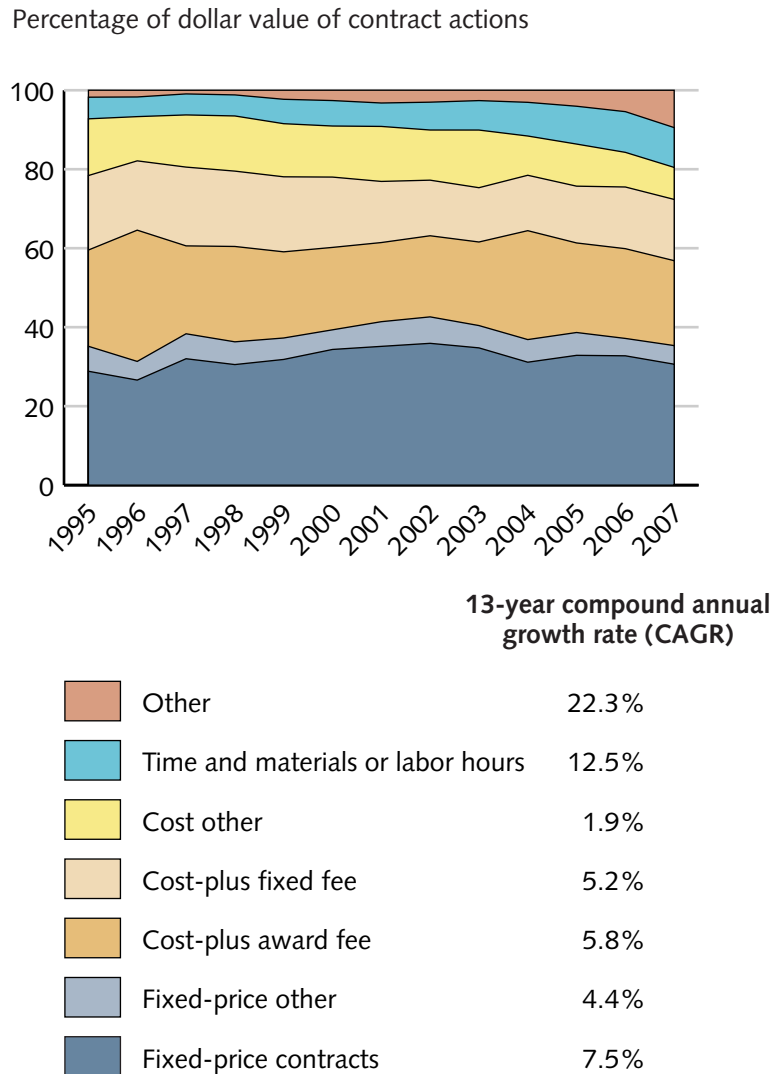
A list of GWACs as of December 2007 includes:

- General Services Administration (8 GWACs): Alliant, ANSWER, HUBZone, ITOP II, Millennia, Millennia Lite, VITS, and 8(a)STARS;
- National Institutes of Health (3 GWACs): CIO-SP2i, Image World 2 New Dimensions, and Electronic Commodities Store (ECS) III;
- Department of Commerce: COMMITTS NexGen;
- National Aeronautics and Space Administration: SEWP III; and
- Environmental Protection Agency: READ.

As a result of the increase in the use of government- and enterprise-wide contracts, there has been an increasing demand for more transparency in the contracting procedures applied to them. In February 2006, the Office of Federal Procurement Policy (OFPP) under the Office of Management and Budget (OMB) initiated an effort to identify the number and scope of inter-agency contracts and collect other information related to inter-agency acquisitions. In June 2008, OFPP published a report, “Interagency Acquisitions,” in which it provided a set of factors for maximizing value for government- and enterprise-wide contracts, describes the process of issuing such contracts, and advises when it is suitable to utilize them. As of October 1, 2008, agencies are required by OMB to ensure that decisions to use interagency acquisitions are supported by best interest determinations, as described in this report.

This OFPP effort, along with other government initiatives (such as the Interagency Contract Directory to help agencies identify available inter-agency contract tools that may be suitable for meeting their needs), has caused a slowdown in the growth of enterprise- and government-wide contracts, not only in terms of the amounts awarded through them but also in terms of the number of contract actions awarded through them. Between 2003 and 2007, the number of contract actions awarded through BOA, FSS, and IDC vehicles declined by 22 percent, 15 percent, and 5 percent, respectively. Despite these developments, multiple-award contracts will likely remain part of the professional services landscape for many years to come.

**Figure 3.5. Pricing of Federal Professional Service Contract Actions, by Percentage of Dollar Value of Contract Actions, 1995–2007**



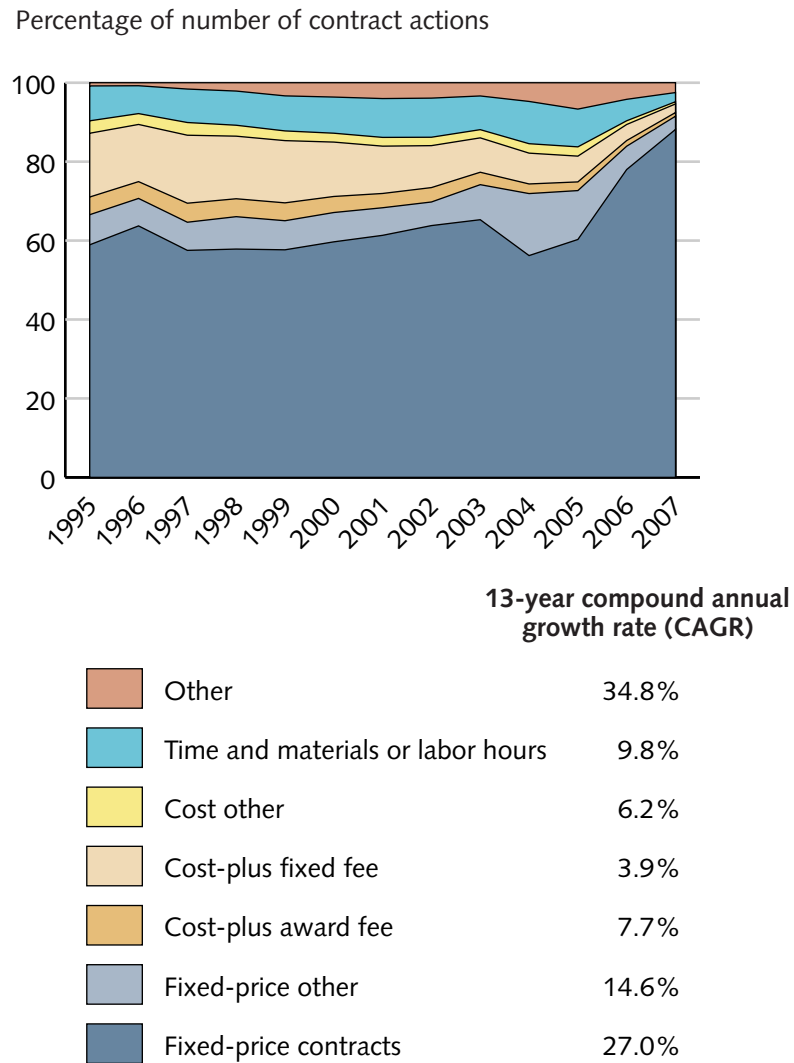
Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of Funding Schemes — Figures 3.5 and 3.6

As a proportion of awards, the dollar amount of all types of fixed-price contracts has decreased slightly in the past five years, to 35 percent of all contract action dollars awarded. All forms of cost-based contracts have also fallen, to 45 percent of contract action dollars, with time-and-materials or labor action contract dollars increasing to 10 percent of contract dollars.

In the past three years, the number of fixed-price contract actions has risen dramatically, even as the amount awarded through such contracts has increased only slightly. As such, the average cost per contract action for fixed-price awards has declined at a rate of 38 percent annually during the past five years, to just over \$23,000. When all forms of fixed-price contracts are included, the average for all fixed-price contracts has fallen at a similar rate, to just

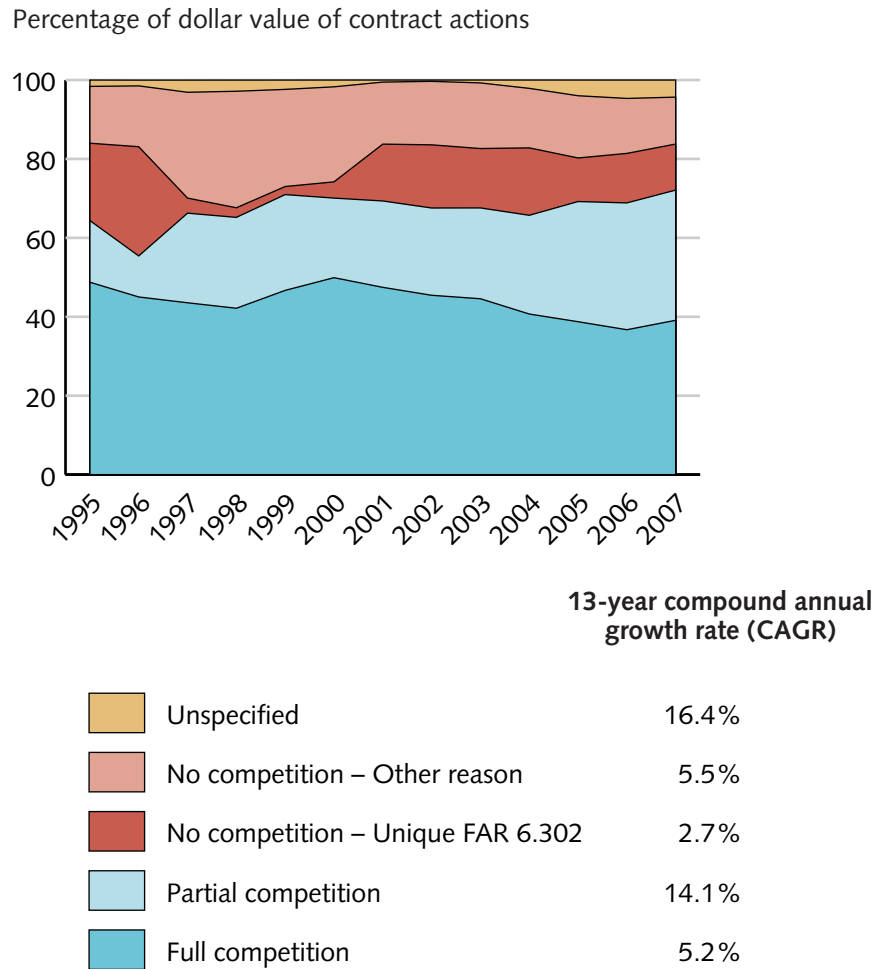
**Figure 3.6. Pricing of Federal Professional Service Contract Actions, by Percentage of Number of Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

under \$26,000. Note that if the more than 2.3 million VA contract actions for rental of medical equipment are excluded from the analysis, the average for all fixed-price contract actions is slightly more than \$100,000. Cost-based contract awards have also fallen in size, though not as fast. The decline of the past five years has averaged 3 percent annually, to \$763,000 for all cost-based actions.

**Figure 3.7. Extent of Competition of Federal Professional Service Contract Actions, by Percentage of Dollar Value of Contract Actions, 1995–2007**

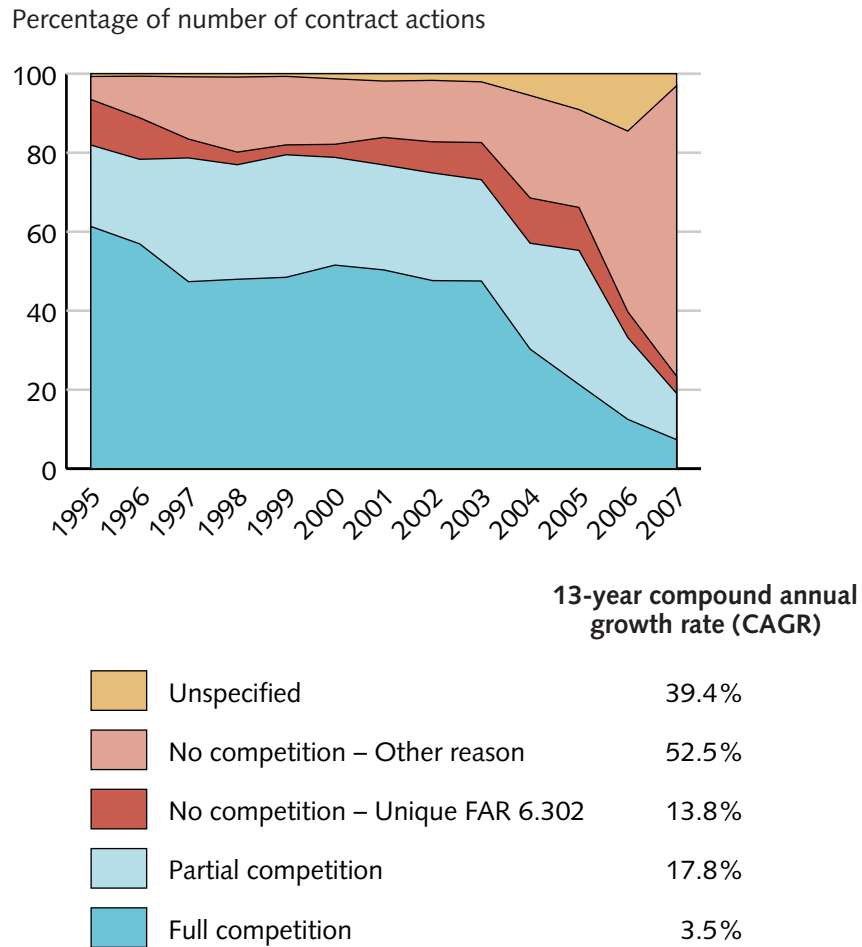


Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of Competition — Figures 3.7 and 3.8

The number of no-competition awards, either under FAR 6.302 (the clause that details the circumstances permitting other than full and open competition) or otherwise, has risen significantly during the past five years, with the number of non-FAR 6.302 awards rising nearly 129 percent annually. The total dollar amount of these no-competition awards has grown only slowly, however, and the average size of all no-competition awards has fallen to just over \$21,000. Note that if the more than 2.3 million VA contract actions for rental of medical equipment are excluded from the analysis, the average for all fixed-price contract actions in 2007 is \$153,000. The dollar amount awarded under FAR 6.302 has been roughly flat, but the average contract award size has dropped more than 20 percent annually during the past five years, to just under \$180,000.

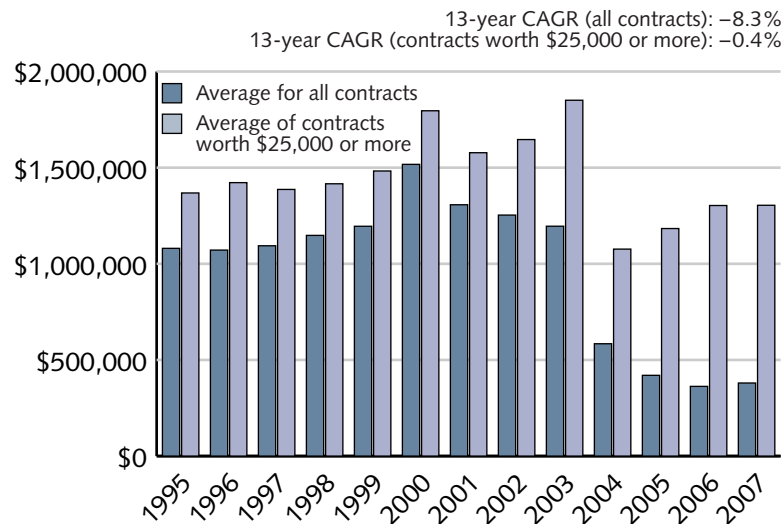
**Figure 3.8. Extent of Competition of Federal Professional Service Contract Actions, by Percentage of Number of Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

Bigger contracts remain fully or partially competed. Full-competition awards account for the greatest dollar amounts and the largest average awards. Partial-competition awards have seen strong growth during the past five years in dollars awarded and even stronger growth in the number of contract actions, with the result that the average award size in the past five years has actually shrunk more than 8 percent annually.

Taken together with the data in figures 3.5 and 3.6, it becomes evident that fixed-price and no-competition actions have been much more common in recent years. The dollars awarded through them has been relatively flat to declining, so the average contract action size of fixed-price and no-competition contracts has fallen steadily.

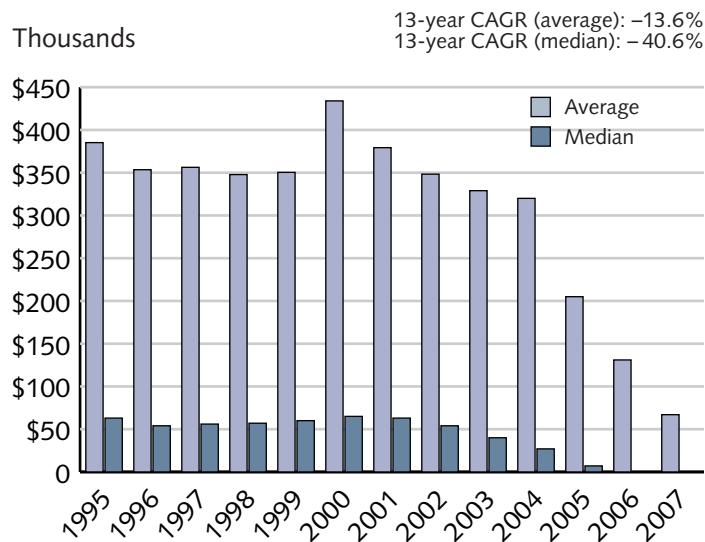
**Figure 3.9. Average Value of Federal Professional Services Contracts, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Average Value of Contracts — Figure 3.9

Another dynamic under way in the services market has been the changes in average contract size. Figure 3.9 shows that the average value of all contracts during the past 13 years has dropped significantly, from about \$1 million per contract in 1995 to less than \$0.4 million in 2007. Note that if the more than 2.3 million VA contract actions for rental of medical equipment are excluded from the analysis, the average contract in 2007 is slightly below \$403,000. This is largely explained by the fact that in 2004 it became mandatory to report to FPDS any contract action of \$2,500 or higher; until that year, only contract actions of \$25,000 and over were to be reported. When contracts worth less than \$25,000 are not counted throughout the 13-year period, the average contract size remains quite constant. Other than a four-year peak (2000–2003) when the average contract was around \$1.5–\$1.8 million, the majority of years saw the value relatively steady at \$1.2–\$1.4 million.

**Figure 3.10. Average and Median Values of Federal Professional Services Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

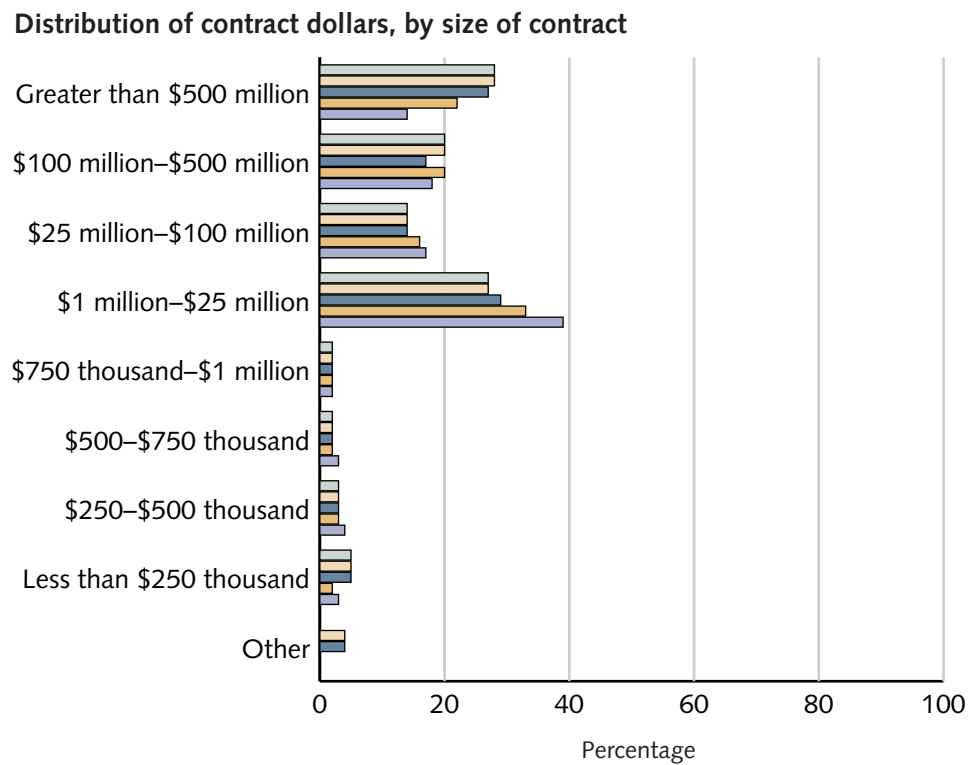
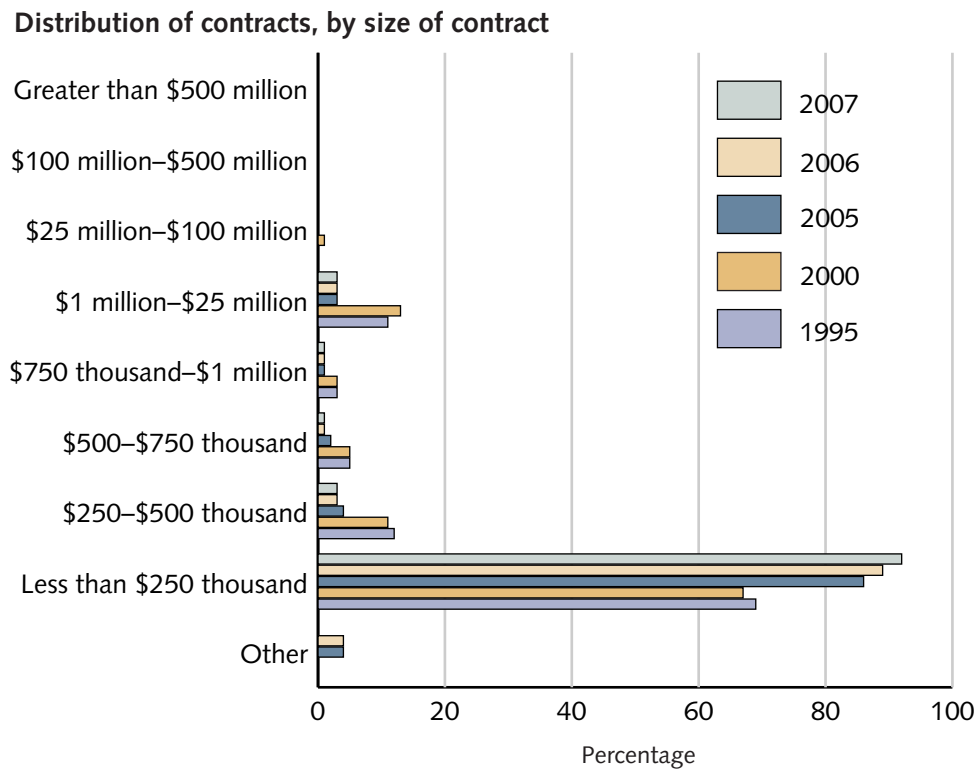
### Average and Median Values of Contract Actions — Figure 3.10

In contrast, as figure 3.10 shows, there has been a dramatic decline in the average and median values of individual contract actions during the past decade, in particular since 2001. During the past 13 years, the average contract action size has decreased 14 percent per year, to \$67,000 in 2007, while the median contract action value has dropped more than 40 percent per year, to less \$1,000 in 2006 and 2007. Note that if the more than 2.3 million VA contract actions for rental of medical equipment are excluded from the analysis, the average contract action in 2007 is just under \$209,000. The increased use of broad multiple-award contract types with multiple contract actions underneath them has been driving this trend.

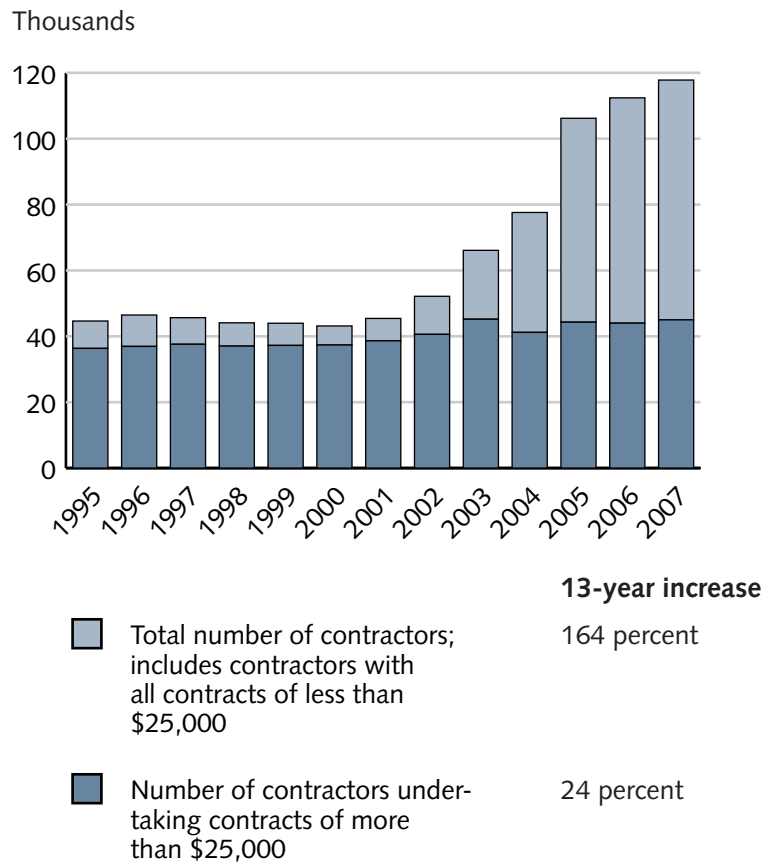
### Distribution of Contracts — Figure 3.11

The distribution pattern of services contracts shows that those worth \$250,000 or less represent 92 percent of all contracts awarded in 2007; however, the cumulative value of all these contracts accounted for approximately 5 percent of the total dollars awarded. This represents significant activity for a relatively small share of the market. Thus, 8 percent of the contracts received approximately 95 percent of total federal dollars spent on professional services, with the sweet spots of the market represented by contracts with a value of \$125 million and those with a value of over \$500 million.

**Figure 3.11. Distribution of Contracts, by Size of Contract, 1995, 2000, 2005, 2006, and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 3.12. Number of Federal Professional Services Contractors, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of the Services Contractor Base — Figure 3.12

The overall professional services industrial base remained surprisingly stable at approximately 45,000 contractors for most of the past decade; since 2001, however, the size of the industry has exploded—more than doubling to almost 118,000 contractors in 2007. Thus, while the overall federal professional services market grew by 128 percent during the past 13 years, the number of contractors grew by 164 percent, with the majority of that growth occurring in the past four years.

A more detailed look at the structure of the professional services industrial base indicates that the bulk of the growth in the number of contractors has occurred through the entry of firms undertaking only contracts worth \$25,000 or less. Even factoring in the inclusion of companies doing \$2,500 and above in FPDS since 2004, it is difficult to determine whether this segment of the industrial base represents a permanent addition or whether it represents firms dabbling in a rapidly growing market.

The core industrial base of contractors undertaking larger contract actions has expanded modestly. Figure 3.12 shows that the number of contractors undertaking the larger contracts has risen from 37,000 to 45,000, an increase of only 24 percent.

The professional services industrial base can be further segmented into small, medium, and large firms. The government has issued rules for what constitutes a small business—\$8 million or less in total corporate revenue in most segments, and \$21 million or less in total corporate revenue for information technology companies—in order to implement small-business set-aside regulations. For the purposes of this analysis, the CSIS study team adopted the government definition of a small business. Large companies were defined as those with annual corporate revenue greater than \$1 billion, and medium-sized companies were all those that fell between the small and large categories.

From 1995 to 1999, two-thirds of the industrial base was composed of small firms. By 2007, the ranks of small businesses had tripled, and three-quarters of the industry was made up of small companies. The number of medium-sized firms has increased by about 98 percent during that same time period.

Another way of characterizing the industry would be on the basis of the amount of federal services contracting a company undertakes, not the overall size of the firm. An analysis of the 2007 data indicates that, of the 118,000 professional services contractors, only 2,389 have \$8 million or more of federal professional services revenue, and 234 firms have \$100 million or more of services revenue.

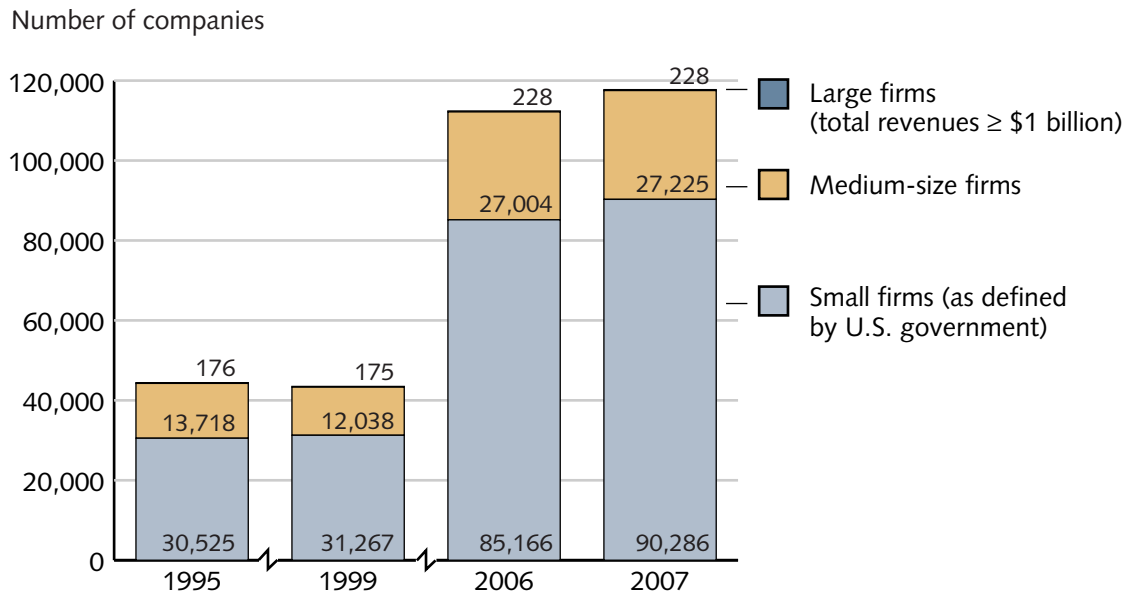
### Segmentation of the Services Contractor Base — Figure 3.13

Figure 3.13 shows that almost two-thirds of the small firms and almost two-thirds of the medium-sized firms execute only contracts that are smaller than \$25,000. This represents a significant increase in the past two years; in 2005, the split in the small- and medium-sized companies between those doing more than \$25,000 and less than \$25,000 was about 50-50. Three-quarters of the companies undertaking only small contracts are small businesses. It remains to be seen what proportion of these small-business, small-contract participants will remain in this market should federal professional services budgets come under significant pressure at some point in the future.

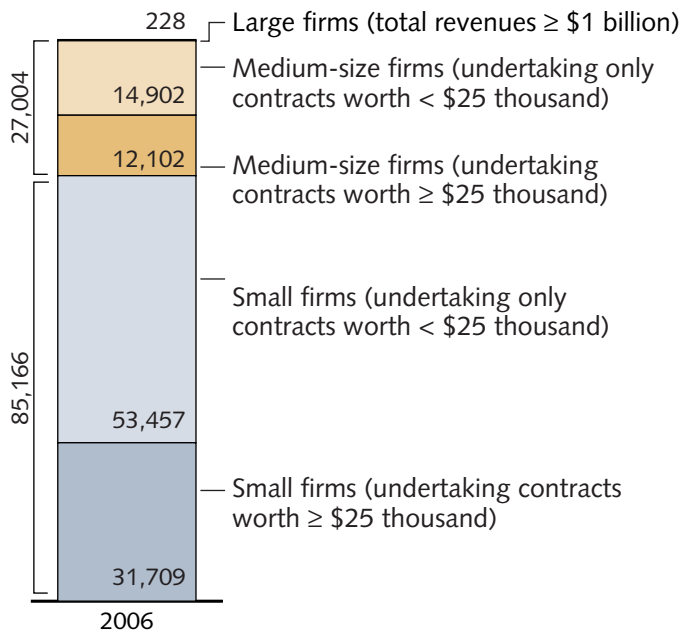
### Evolution of Market Shares — Figure 3.14

When the market shares held by the small, medium, and large companies in the industry are examined, it is clear that middle-tier companies have suffered a significant erosion of their relative share. In 1995, middle-tier companies captured 44 percent of the total value of federal professional services contracts. By 2005, the middle-tier companies were able to capture only 35 percent of that value, and only 33 percent by 2007. Small-business set-aside laws and other policies protecting small firms have clearly worked in the professional services industry (see Figures 3.15 and 3.16). Small companies have sustained a 19–21 percent market share in the value of prime contracts (their share of the market is larger if the value of subcontracts is included). The large companies in this industry have been particularly active via mergers and acquisitions (see Appendix B) and have been able to increase their market share from 37 to 46 percent. Thus, the middle tier has been squeezed from above by consolidation and from below by small businesses holding on to their share of the market. Furthermore, it seems that as a result of this trend, medium-sized companies are beginning to opt out of the federal professional services market. The data show that in the past two years there has been a drop of between 1 and 6 percent in the number of medium-sized companies undertaking significant contracts (those worth \$25,000 or more) in all sectors of the professional services industrial base (with the exception of the ICT sector).

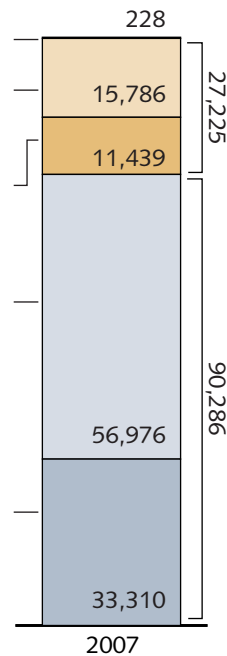
**Figure 3.13. Number of Small, Medium, and Large Firms in the Federal Professional Services Industry, 1995, 1999, 2006, and 2007**



**Details for 2006**



**Details for 2007**

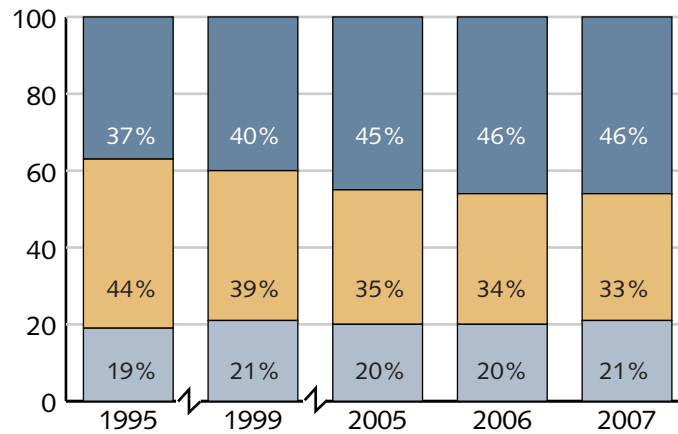


Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 3.14. Market Share of Small, Medium, and Large Firms Participating in the Federal Professional Services Industry, by Value of Contracts and by Number of Contract Actions, 1995, 1999, 2005, 2006, and 2007**

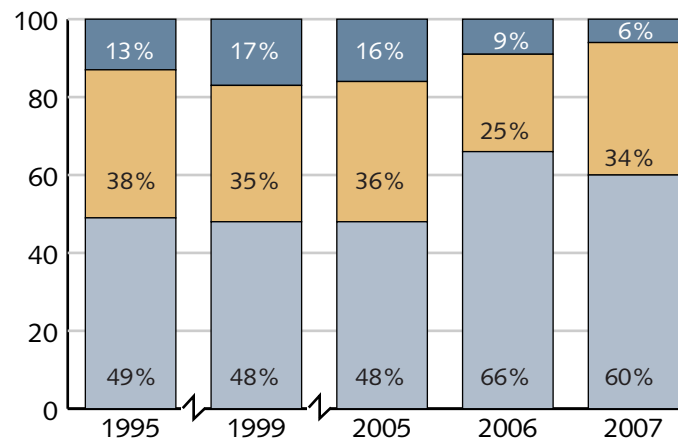
**Value of contracts**

Percentage



**Number of contract actions**

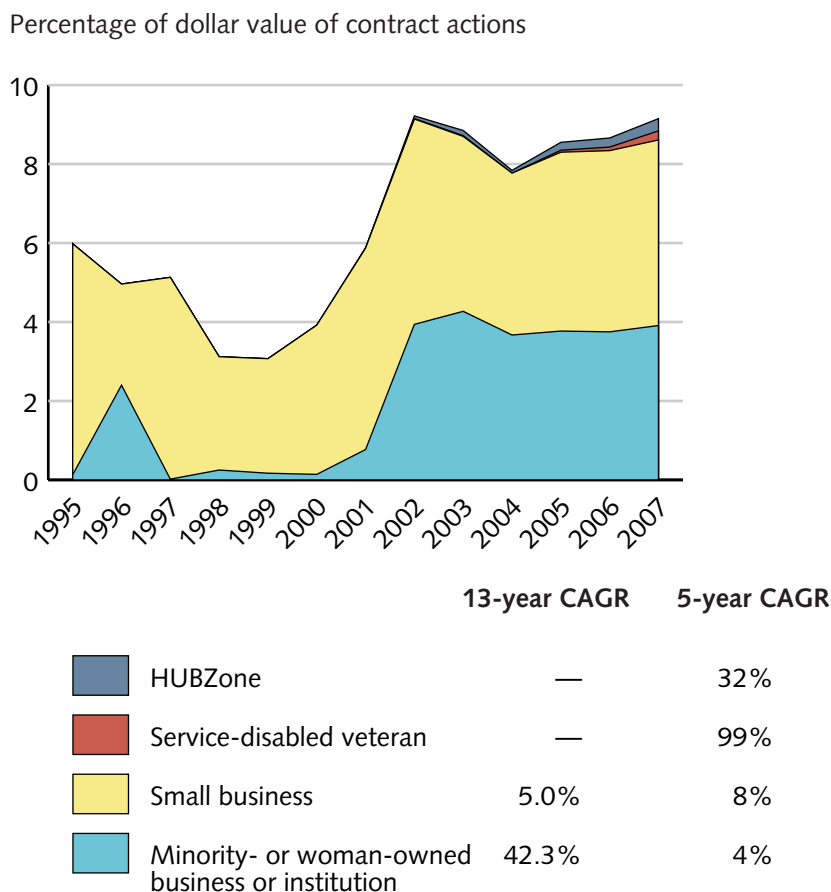
Percentage



- Large firms (total revenues > \$1 billion)
- Medium-size firms
- Small firms (as defined by U.S. government)

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 3.15. Type of Set-Aside for Federal Professional Service Contract Actions, by Percentage of Dollar Value of Contract Actions, 1995–2007**



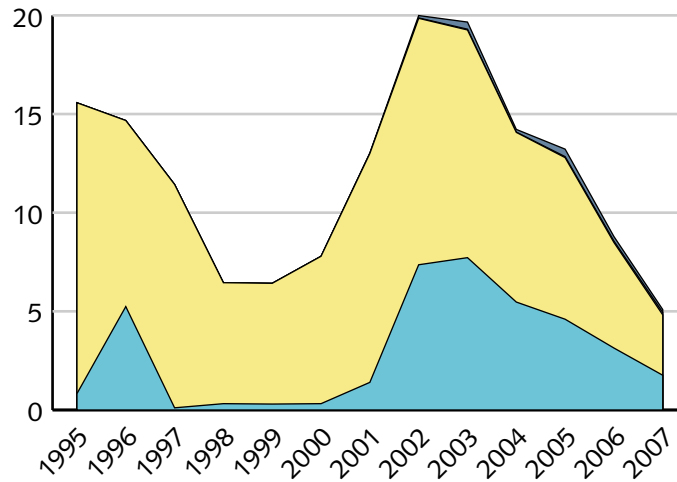
Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.





### Evolution of Small-Business Set-Asides — Figures 3.15 and 3.16

By dollar value, the four main categories of small-business set-asides—those granted to small businesses overall and those granted specifically to small businesses that are minority- or woman-owned, owned by service-disabled veterans, and those located in historically under-utilized business zones (HUBZone)—accounted for about 5 percent of all federal spending on professional services between 1995 and 2001, and for 9 percent of this spending in the period 2002–2007. By number of contract actions, set-asides accounted for anything between 5 and 20 percent of total federal spending on professional services, with levels fluctuating from year to year. Set-asides to small businesses and to women- or minority-owned businesses account for the majority of government allocations. Note that these numbers represent only work categorized as set-asides, not all work performed by small businesses.

**Figure 3.16. Type of Set-Aside for Federal Professional Service Contract Actions, by Percentage of Number of Contract Actions, 1995–2007**

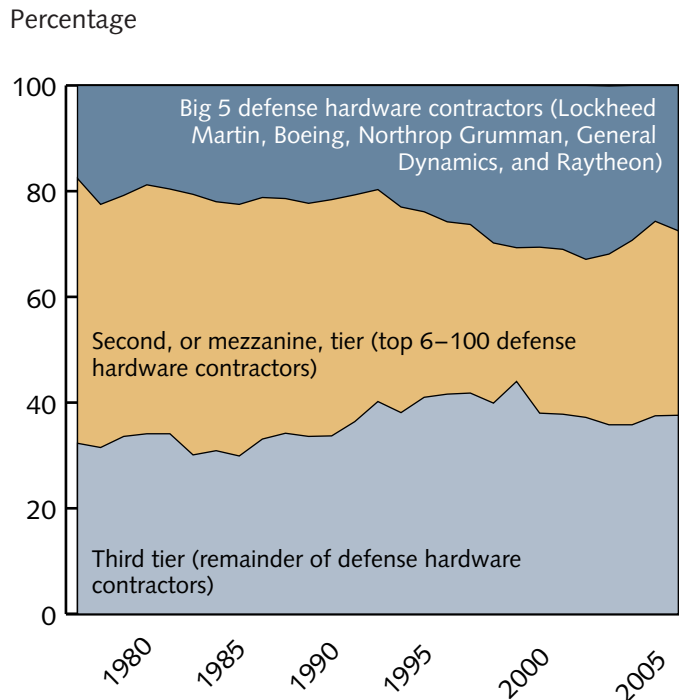
Percentage of number of contract actions



	13-year CAGR	5-year CAGR
 HUBZone	—	25%
 Service-disabled veteran (not visible)	—	107%
 Small business	7.7%	11%
 Minority- or woman-owned business or institution	30.7%	7%

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 3.17. DOD Prime Contract Dollars Awarded to Small, Medium, and Large Contractors, 1977–2006**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of Overall Defense Market Shares — Figure 3.17

This squeezing of the middle tier was for a while also seen in the overall defense industrial base. During the past decade, the Top 5 defense companies (Lockheed Martin, Boeing, Northrop Grumman, General Dynamics, and Raytheon) increased their market share from about 26 percent to about 33 percent of prime contract value awarded by 2002, before dropping back to 27 percent in 2006. The third tier of the defense hardware industry—in part assisted by small-business set-aside policies—has actually expanded market share to 38 percent of the value of contracts awarded. Again squeezed from above and below, the mezzanine tier of the defense hardware industry saw its market share decline to 30 percent during through 2002, before making somewhat of a comeback, reclaiming a portion of its share from the Top 5 and returning to 35 percent in 2006.

**Table 3.3. Distribution of Contractors in the Five Professional Services Categories, 1995 and 2007, percentage**

	1995					2007				
	ICT	PAMS	R&D	ERS	FRS	ICT	PAMS	R&D	ERS	FRS
ICT	100	33	19	25	9	100	44	16	24	17
PAMS	7	100	13	6	6	9	100	11	12	12
R&D	9	30	100	9	4	11	39	100	15	16
ERS	11	13	8	100	12	9	21	7	100	20
FRS	1	4	1	3	100	4	14	5	13	100

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### Cross-Category Participation by Contractors — Table 3.3

Many contractors provide the federal government with services in more than one category. Table 3.3 shows, as would be expected, that there is considerable overlap between contractors undertaking both ICT services and PAMS contract actions. In 2007, 44 percent of ICT contractors were also active in the PAMS category, and that interrelationship has been continuously increasing over the past decade. The other area of substantial and growing overlap, revealing the increased demand for studies, is between contractors undertaking both R&D work and PAMS services. On a small scale, there are more ERS firms undertaking PAMS work, again reflecting the growth in studies and analyses. Finally, ICT companies are taking on more ERS and FRS work. Overall, the past decade has witnessed the federal professional services industry becoming much more horizontally integrated.

### Top 20 Contractors — Table 3.4

An analysis of the Top 20 contractors (by value of contract actions) in the federal professional services industry further reveals how the industrial base has changed over time. The Top 20 companies in the industry had a 31 percent market share in 1995, and a 35 percent share in 2007 (a slight dip from almost 37 percent in 2004). The Top 5 companies have essentially retained their market share (19 percent) since 1995, although a significant decrease, from 21 to 17 percent, occurred in 2004–2005. Furthermore, the definition of critical mass has changed. In 1995, contract awards of a few hundred million dollars allowed a company to be contractor number 20; in 2007 that ranking required annual awards of almost \$1.4 billion.

The composition of the Top 20 contractors also changed significantly between 1995 and 2007. As in the defense hardware market, there are fewer commercial conglomerates in the professional services industry today compared with 1995 (11 of the companies on the 1995 Top 20 list compared with 9 in 2007). The major new entrants in the Top 20 are the heavy engineering firms that in 1995 accounted for just one of the Top 20 (Bechtel), in 2005 included four (Halliburton, Bechtel, Fluor, and BWXT), and in 2007 fell to just two (KBR and Bechtel). Clearly this is a reflection of the Afghanistan and Iraq conflicts. In addition, defense hardware and platform companies are increasing their presence in the federal professional services market.

Table 3.4. Top 20 Contractors, 1995 and 2007

Rank	1995		2007	
	Company	Value of contract actions (\$, thousands)	Company	Value of contract actions (\$, thousands)
1	Lockheed Martin	9,189,708	Lockheed Martin	14,765,357
2	Westinghouse	3,216,178	Boeing	9,768,474
3	Boeing	2,959,228	Northrop Grumman	9,417,107
4	Northrop Grumman	2,515,868	Raytheon	5,274,520
5	Raytheon	1,624,159	KBR	4,705,732
	<b>Subtotals for Top 5</b>	<b>19,505,141</b>		<b>43,931,190</b>
6	CSC	1,505,354	SAIC	4,411,370
7	Rockwell	1,464,352	General Dynamics	4,281,834
8	SAIC	1,236,287	L-3 Communications	4,123,000
9	Loral	1,203,619	Computer Sciences Corporation	3,605,251
10	Sandia Corporation	1,159,740	Battelle	3,415,111
11	General Electric	1,121,452	Sandia Corp.	2,466,164
12	TRW	1,097,035	EDS	2,434,740
13	DynCorp	640,453	BAE Systems	2,298,812
14	Newport News	630,387	Booz Allen Hamilton	2,277,128
15	Bechtel	496,040	ITT Industries, Inc.	1,662,442
16	IBM	446,053	Bechtel	1,514,905
17	Unisys	425,543	CACI	1,461,084
18	MITRE	380,305	Fedex	1,419,039
19	United Technologies	377,825	Honeywell, Inc.	1,415,423
20	General Dynamics	360,028	Westinghouse	1,371,358
	<b>Totals for Top 20</b>	<b>32,049,614</b>		<b>82,088,851</b>

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### **Details of Top 20 Contractors — Tables 3.5 and 3.6**

The types of services in which industry leaders have specialized have also changed over time. Thirteen years ago Lockheed Martin received the bulk of its professional services contracts for R&D and FRS work. Today, R&D is still the largest of Lockheed Martin's services activities, but its FRS work has been replaced by a strong presence in the more complex and skills-intensive ICT and PAMS segments. Northrop Grumman has also built leading positions in both the ICT and PAMS segments while maintaining a focus on R&D. Tables 3.5 and 3.6 on the following two pages provide further details about the Top 20 contractors.

**Table 3.5. Top 20 Contractors, by Activity Category, 1995 (dollars, thousands)**

Contractor	ICT	PAMS	R&D	ERS	FRS	Other	Total
Lockheed Martin	179,678	1,021,073	4,537,281	825,556	2,519,757	106,363	9,189,708
Westinghouse	213,000	101,889	218,167	22,795	2,865,366	(205,039)	3,216,178
Boeing	219,368	404,864	2,053,125	268,426	1,663	11,782	2,959,228
Northrop Grumman	389,466	783,388	1,060,062	206,657	56,757	19,538	2,515,868
Raytheon	44,639	574,654	635,547	170,677	195,087	3,555	1,624,159
CSC	857,588	255,358	234,933	27,645	127,670	2,160	1,505,354
Rockwell	1,168	195,128	763,278	465,145	17,862	21,771	1,464,352
SAIC	279,260	451,613	337,129	6,041	98,921	63,323	1,236,287
Loral	194,571	154,621	503,876	195,614	147,931	7,006	1,203,619
Sandia Corporation	0	0	34	0	1,159,706	0	1,159,740
General Electric	0	98,694	606,956	220,530	190,423	4,849	1,121,452
TRW	30,103	312,428	474,497	16,295	261,267	2,445	1,097,035
DynCorp	28,917	188,497	6,079	247,362	169,487	111	640,453
Newport News	0	120,571	10,045	497,918	1,275	578	630,387
Bechtel	0	171,725	7,184	5,335	200,240	111,556	496,040
IBM	120,787	29,396	131,911	164,284	47	(372)	446,053
Unisys	156,763	45,430	158,625	63,273	1,006	446	425,543
MITRE	10,710	88,116	273,833	0	0	7,646	380,305
United Technologies	0	14,729	274,775	86,804	770,000	(768,483)	377,825
General Dynamics	0	142,062	129,637	78,605	7,883	1,841	360,028
<b>Total</b>	<b>2,726,018</b>	<b>5,154,236</b>	<b>12,416,974</b>	<b>3,568,962</b>	<b>8,792,348</b>	<b>(608,924)</b>	<b>32,049,614</b>

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

**Table 3.6. Top 20 Contractors, by Activity Category, 2007 (dollars, thousands)**

Contractor	ICT	PAMS	R&D	ERS	FRS	Other	Total
Lockheed Martin	1,144,639	2,662,898	9,038,109	1,536,108	113,624	269,979	14,765,357
Boeing	222,514	1,010,240	8,047,714	414,837	31,877	41,292	9,768,474
Northrop Grumman	1,300,090	4,768,992	2,771,840	456,007	55,904	64,273	9,417,107
Raytheon	181,315	978,946	2,910,579	651,162	302,056	250,463	5,274,520
KBR	0	4,781,502	-119,557	0	43,786	0	4,705,732
SAIC	1,820,777	1,528,979	805,221	190,378	44,193	21,823	4,411,370
General Dynamics	635,429	1,025,316	1,212,947	1,335,972	10,791	61,379	4,281,834
L-3 Communications	348,057	2,069,059	341,659	1,237,498	29,640	97,087	4,123,000
Computer Sciences Corporation	1,334,808	1,309,070	215,464	561,041	166,655	18,212	3,605,251
Battelle	5,481	136,206	971,007	3,942	2,277,987	20,488	3,415,111
Sandia Corp.	0	5	0	0	2,466,159	0	2,466,164
Electronic Data Systems Corporation	2,310,188	120,636	98	1,431	147	2,240	2,434,740
BAE Systems	171,309	950,258	468,843	643,783	57,441	7,179	2,298,812
Booz Allen Hamilton	396,285	1,244,005	554,186	5,495	8,171	68,986	2,277,128
ITT Industries, Inc.	215,096	380,156	465,516	462,654	139,012	8	1,662,442
Bechtel	0	69,390	477,313	0	531,113	437,088	1,514,905
CACI	362,930	857,945	194,181	31,770	3,544	10,714	1,461,084
Fedex	310	36,393	5,075	2,309	38	1,374,913	1,419,039
Honeywell, Inc.	212,382	380,962	70,081	170,485	580,471	1,042	1,415,423
Westinghouse	0	0	0	0	1,371,358	0	1,371,358
<b>Total</b>	<b>10,661,610</b>	<b>24,310,957</b>	<b>28,430,278</b>	<b>7,704,872</b>	<b>8,233,967</b>	<b>2,747,166</b>	<b>82,088,851</b>

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.



# Policy Implications

Professional services providers have traditionally been a major resource for the U.S. federal government. Since 1995, federal spending on services has represented about 20 percent of the total federal discretionary budget, reaching a record high in 2007 at \$233 billion. The potential benefits of the public use of private firms are fairly well known: contracting to private industry for the provision of some of the traditional, as well as emerging, government functions may enable federal departments to redeploy resources to more value-added functions while increasing their responsiveness and creating surge capacity for emergencies.

This increased scope and visibility of the federal professional services industry raises important public policy issues. Legitimate questions of limits, incentives, fairness, value received, and appropriateness of regulatory frameworks need to be carefully considered when such large sums of the public treasury are at stake. The balancing of private and public equities will require thoughtful deliberation. Overzealous regulation will drive away the innovative and efficient firms that government is seeking to attract. Lack of proper oversight risks the loss of public trust and acceptance of private contracting as a viable means of executing federal responsibilities. Because the allocation of contracts in our system occurs within both a political and an industrial context, care must be taken not to sacrifice long-term goals for short-term benefits.

Of the multiple policy issues related to the management of the professional services industrial base, we have focused on those issues related to the facts analyzed in this study. Key issues among this group include:

**What are the natural limits to the government's outsourcing of services?** Every category of professional services analyzed in this report exhibited at least mid-single-digit or double-digit compound growth during the past decade. Federal acquisition regulations prohibit the outsourcing of all tasks that are "inherently governmental." But the exact meaning of "inherently governmental" has varied over time depending on the urgency of the government's needs and its ability to fulfill its own requirements organically. Most senior government executives agree that government should retain the right to make policy, commit public funds, and evaluate the results of services and products procured. Yet these limits have eroded somewhat as demands on government have expanded, the federal workforce has shrunk, and the technical skills within the government have atrophied. Examining the line of what is inherently government and articulating a clear policy that can be embraced by all the parties will be critical to maintaining a healthy government-industrial relationship.

**How much competition is beneficial to the government and under what circumstances?** Competition can be an extremely effective tool for managing the industrial base, particularly when there is an asymmetry of information between industry and government. Sometimes, however, other tools are a better fit for the job at hand. As a general policy, competition is used to create incentives for suppliers to keep costs down and quality up. In

practice though, situations arise where running repeated competitions for specialized services where very limited numbers of qualified suppliers exist actually costs the government more money than it saves. The facts that half of the value of federal services contracts is in modifications to existing contracts and that the fastest-growing categories of contract actions are in multiple-award vehicles may or may not indicate that sufficient competition is occurring. A one-size-fits-all approach will not work. The real answers depend on an honest evaluation of where and when the government derives its greatest benefits from competition.

**What effect does the rapidly increasing volume of contracting activity have on the federal government contract management workforce?** As the size of contract actions continues to decrease, the number of contract actions to be processed increases by at least 11 percent per year. Are the newer contract vehicles really saving the government time and money or are they just adding to the burden of an already stretched contracting staff?

**Is the current structure of the services industrial base sustainable?** Two related but different factors are at play here. The first is that the existing small- and disadvantaged-business set-aside laws have clearly been working in the professional services market, as small businesses have consistently maintained a 20–22 percent share of total government services contracts. There is some anecdotal evidence, however, of some negative side effects—companies that never graduate from their protected status, for example—that is worth further study. The other important factor is the growing clout of the companies greater than \$1 billion in size. Together these forces are slowly squeezing out a viable cadre of mid-tier companies. Traditionally, mid-tier companies have served as a conduit for new ideas and improved business practices. Policymakers must determine whether a robust middle tier of services companies is important or desirable for the federal marketplace. If so, current incentives for companies to enter and remain in this mid-market level must be changed in order to encourage this to happen.

**How should guidelines be set to avoid organizational conflicts of interest resulting from mergers and acquisitions (m&a) activity among industry participants?** Since 2001, the transaction volume of M&A deals in the professional services sector has doubled. As a by-product of all this activity, several scientific engineering and technical assistance (SETA) contractors have ended up as part of larger firms, sometimes supervising their parent or sister companies for the federal government. The concern over the potential for organizational conflict of interest is mounting within the government. Although there are many remedies, ranging from firewalls to divestiture of the conflicted entities, a clearly articulated policy and industrial base strategy addressing this issue is lacking.

**Does the growth and diversity of this marketplace indicate a need for a fundamentally different set of acquisition regulations, more in tune with vagaries of services contracting?** The current federal acquisition regulations were developed over the past 25-plus years with a bias toward the acquisition of material goods and weapons. Materiel can be specified, developed, tested, and accepted over a period of time. Services, by contrast, fill more immediate needs. Although service contracts may extend over many years, services support often starts upon contract signature and can be more direct and personal in nature—even though personal services are prohibited under the current FARs—

depending on the exact nature of the contract in question. There are many seasoned contracting officers both inside and outside of government today raising the question: Should services be treated differently? To the extent that a revised set of services regulations would result in substantial cost or time savings to the federal bureaucracy, this topic should be examined.

**Important policy questions regarding the u.s. professional services industrial base cannot be answered owing to lack of data.** For example, to anyone seeking data to oversee or improve government contracting, the FPDS presents one substantial obstacle: it contains no data on contract performance despite the fact that acquisition regulations already mandate collection of contract performance data. As described in a recent GAO report: “. . . [T]he OFPP [Office of Federal Procurement Policy] has issued guidance on best practices for considering past performance data. Consistent with the FAR, OFPP guidance states that agencies are required to assess contractor performance after a contract is completed and must maintain and share performance records with other agencies. . . . Performance records should specifically address performance in the areas of: (1) cost, (2) schedule, (3) technical performance (quality of product or service), and (4) business relations, including customer satisfaction, using a five-point rating scale.”<sup>2</sup>

This performance data is collected in an online database—the Past Performance Information Retrieval System (PPIRS)—but it is only accessible to federal acquisition officials making source selection decisions and to contractors reviewing their own records. Although many reports have been written about high-profile failures in contracting, they rely largely on case studies of high-profile programs. Making the data in the PPIRS available via FPDS would allow analysis of what works and what does not for the great majority of contracts that never make the papers. In the short term, however, integrating PPIRS and FPDS should not be a priority; instead, PPIRS data should simply be made available to the general public.

Another set of policy questions that cannot currently be adequately answered using FPDS relates to set-asides: a number of entries—covering more than \$30 billion of contract actions in 2007—includes blank fields or two fields with clearly contradictory data. Some entries, for example, claim to have been freely and openly competed although at the same time a set-aside was used. Fortunately, the percentage of problem entries in these data columns is shrinking every year. In fiscal year 2000, \$46 billion of contract actions had no information on whether set-asides were used, but by fiscal year 2007 that number was down to \$31 billion despite a dramatic rise in overall spending.

**On the broader topic of data retrieval from FPDS:** Although the laudable “Ad Hoc” search function on the FPDS Web site (<https://www.fpds.gov>) is a significant and highly customizable tool for those interested in federal contracting, it does suffer from a few key limitations. The most notable of these restrictions is that queries are limited to returning 5,000 rows of results. This limitation makes it rather difficult to aggregate by contracts or contractors because there are hundreds of thousands of unique entries for each of these two units of analysis. One solution would be to expand on the existing tools that allow querying one contract or contractor at a time, but that may represent a difficult programming challenge. A more practical solution would be to allow users to queue up larger ad hoc queries that would not return immediate results but would instead run during off-peak hours. Such a system would also help

2. “Federal Contracting: Use of Contractor Performance Information; Statement of William T. Woods, Director, Acquisition and Sourcing Management,” Report no. GAO-07-1111T (Washington, D.C.: United States Government Accountability Office, July 18, 2007).

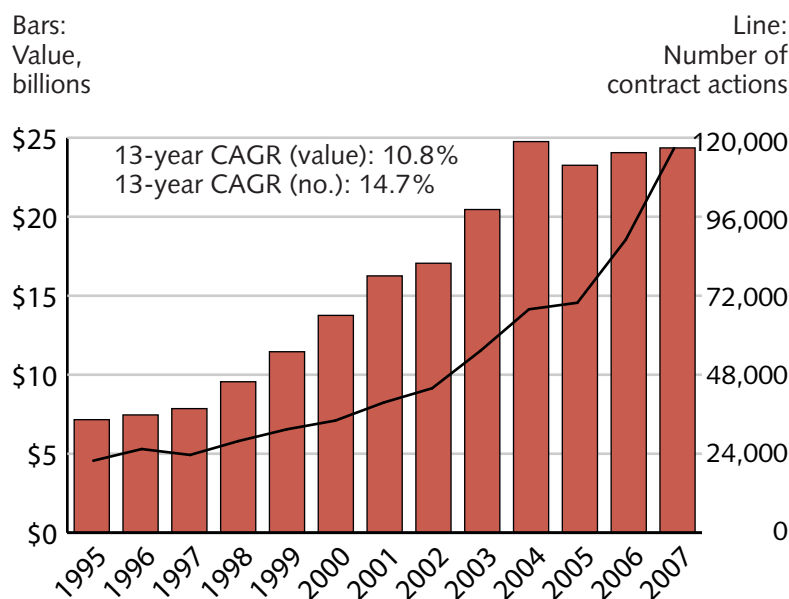
with complex queries that regularly time out on the site instead of returning results. Based on the feedback to past CSIS reports on the professional services industrial base, aggregation by contract or contractor is of great interest to those studying or working with federal contracts, and providing additional tools to study those issues would thus enhance the value of the FPDS.gov Web site for taxpayers.

A host of other key policy issues are not mentioned above; these include issues such as the legal implications of contractors deployed outside of the United States under battlefield conditions. These issues, while important, are beyond the scope of this study. We have focused instead on policy questions related to the size, scope, and development of the federal professional services industrial base.

# Information and Communications Technology Services

## In this chapter:

- 13-year summary of ICT services
- Top 10 customers for ICT services
- Market growth by value and number of contract actions
- Average values of contracts and contract actions
- Number of contractors
- Market share trends of small, medium, and large companies
- Top 20 contractors (1995 and 2007)

**Figure 5.1. Growth of the Federal ICT Services Market, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### ICT Services Market Growth — Figure 5.1

The contracting for and outsourcing of information technology services by the federal government has been a key trend of the past 13 years. Federal information and communications technology (ICT) professional services was the fastest-growing contracting segment between 1995 and 2007, with a compound annual growth rate of about 11 percent. Overall, the market grew from \$7.1 billion in 1995 to \$24.3 billion in 2007. That growth peaked in 2004, however, and the segment shrank between 2005 and 2007. The annual growth rate for the past five years has been a mere 4 percent, the same as for FRS and ERS and significantly lower than PAMS and R&D.

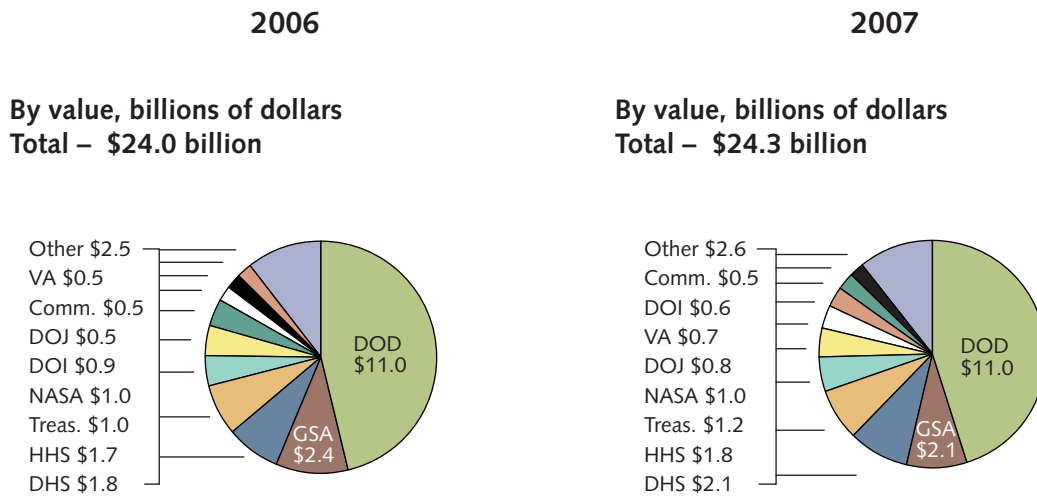
### Key ICT Services Market Customers — Figure 5.2

The Department of Defense accounts for 45 percent of the ICT services market (\$11 billion of awards in 2007). Other key customers are the General Services Administration and the Department of Homeland Security with \$2.1 billion each.

### Evolution of ICT Contract and Contract Action Sizes — Figure 5.3

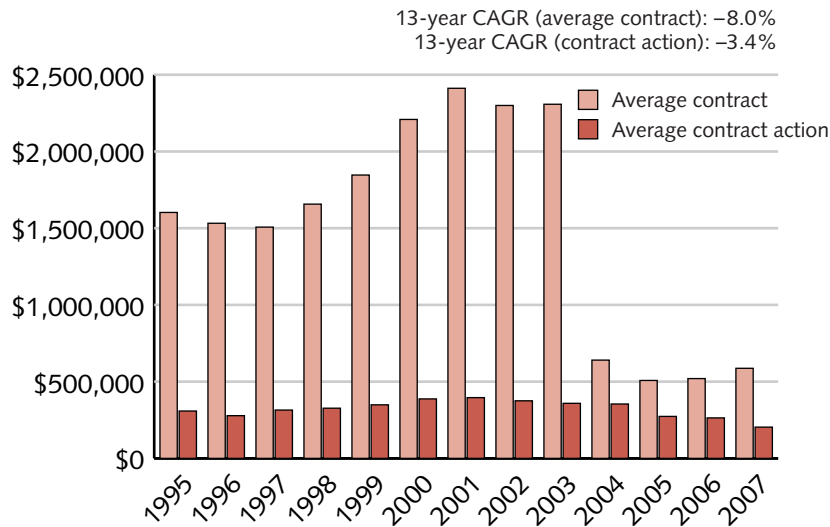
The average contract and contract action in the ICT segment rose steadily between 1997 and 2001 but have decreased each year since 2001 with a sharp decrease in 2004. By 2007 the average contract size was \$587,000, and the average contract action size was \$204,000.

**Figure 5.2. Federal ICT Services Market, by Customer, 2006 and 2007**

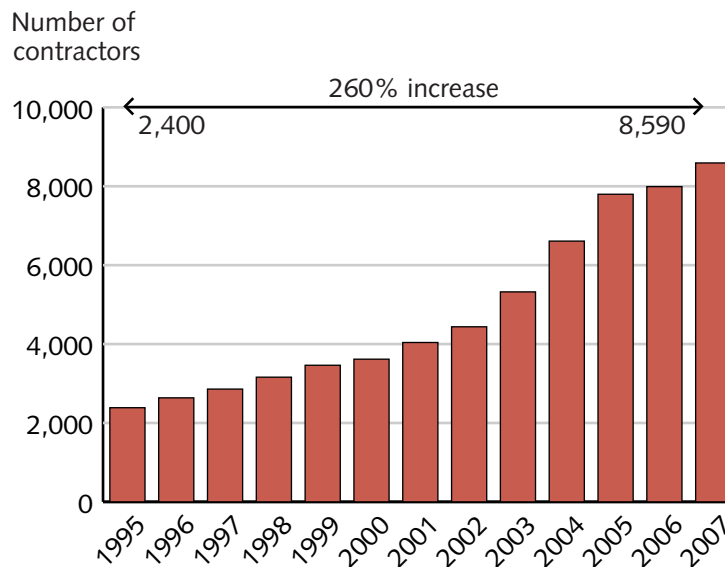


Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 5.3. Average Values of Federal ICT Services Contracts and Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 5.4. Number of Federal ICT Services Contractors, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of the ICT Contractor Base — Figure 5.4

The number of federal ICT services contractors has grown in line with the expansion of the market—both have approximately tripled in the past 13 years.

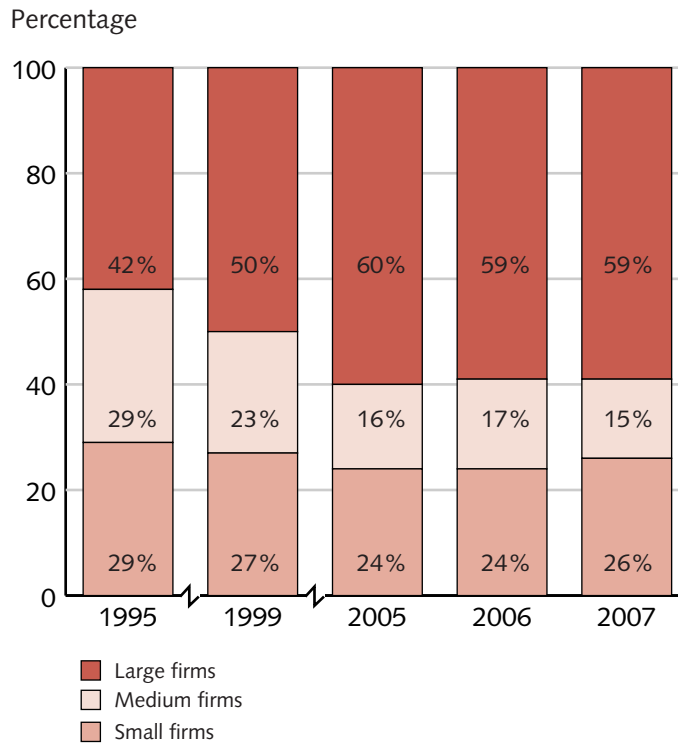
### Evolution of ICT Contractors' Market Shares — Figure 5.5

Despite the growth in the number of competitors, this is a market that has seen growing concentration. The market share held by small companies has declined from almost 30 percent in 1995 to a still relatively high 26 percent in 2007, and the share of contracts held by large companies has grown from 42 percent in 1995 to 60 percent in 2007. ICT is a market segment where having critical mass is important, and the threshold for being deemed a major competitor continues to rise. This is driving robust mergers and acquisitions activity by the major firms, and the medium-size firms are being squeezed in the process.

### Breakdown According to Size of ICT Contractors — Figure 5.6

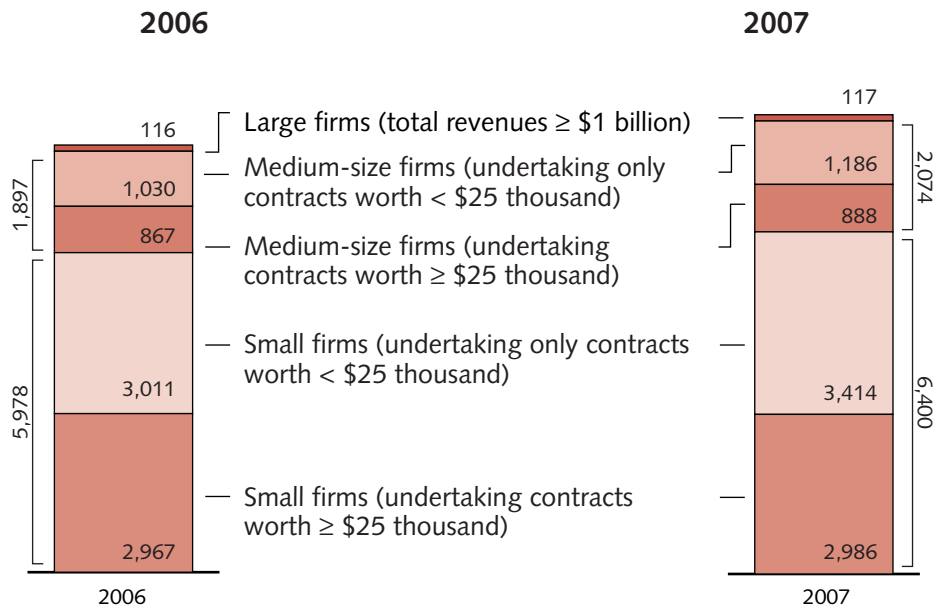
The number of large firms dropped slightly in 2006 (from 123 in 2005) but remained stable in 2007. The number of small and medium-sized companies continued to rise, though at a slower rate than in previous years: 7 percent for small companies from 2006 to 2007 (compared with 16.5 percent in 2004–2005) and 9 percent for medium-sized companies from 2006 to 2007 (compared with 21 percent in 2004–2005). As in previous years, the majority of growth occurred in companies undertaking only contracts worth less than \$25,000.

**Figure 5.5. Distribution, by Value of Contract Actions, of Federal ICT Services Market to Small, Medium, and Large Firms, 1995, 1999, 2005, 2006, and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 5.6. Number of Small, Medium, and Large Firms in the Federal ICT Services Market, 2006 and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Table 5.1 Percentage of ICT Contractors Participating in Other Professional Services Categories, 1995 and 2007**

1995				2007			
PAMS	R&D	ERS	FRS	PAMS	R&D	ERS	FRS
33	19	25	9	44	16	24	17

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### **Cross-Category Participation by ICT Contractors — Table 5.1**

Companies in the ICT market have been very active in other services segments. There is a heavy and growing overlap between firms participating in the ICT segment and the professional, administrative, and management services (PAMS) segment, as would be expected. In 2007, 44 percent of all the ICT competitors were also involved in PAMS (compared with 33 percent in 1995 and 40 percent in 2005). There has also been an increase in the number of companies in both the ICT segment and the facilities-related services (FRS) segment, from 9 percent in 1995 to 17 percent in 2007.

Table 5.2. Top 20 Federal ICT Services Contractors, 1995 and 2007

Rank	1995		2007	
	Company	Value of contract actions (\$)	Company	Value of contract actions (\$)
1	CSC	857,588,000	EDS	2,310,187,977
2	Northrop Grumman	389,466,000	SAIC	1,820,777,317
3	SAIC	279,260,000	CSC	1,334,808,255
4	Boeing	219,368,000	Northrop Grumman	1,300,089,949
5	Loral	194,571,000	Lockheed Martin	1,144,638,776
	<b>Subtotal for Top 5</b>	<b>1,940,253,000</b>		<b>7,910,502,273</b>
6	EDS	187,180,000	IBM	741,598,813
7	Lockheed Martin	179,678,000	Unisys	636,512,692
8	Unisys	156,763,000	General Dynamics	635,429,360
9	IBM	120,787,000	Accenture	423,708,523
10	AT&T	81,129,000	Booz Allen Hamilton	396,284,660
11	Xerox	68,003,000	CACI	362,929,903
12	Comsat	64,495,000	L-3 Communications	348,056,905
15	MCI	61,294,000	Boeing	222,514,147
14	Logicon	50,613,000	AT&T	217,774,103
15	Booz Allen Hamilton	49,804,000	Verizon	215,320,722
16	GTE	45,721,000	ITT	215,095,929
17	CACI	45,345,000	Honeywell	212,381,800
18	Raytheon	44,639,000	Systems Research & Application	197,305,765
19	Mantech	34,238,000	Raytheon	181,315,334
20	TRW	30,603,000	Harris Corporation	174,082,437
	<b>Total for Top 20</b>	<b>3,160,545,000</b>		<b>13,090,813,368</b>

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### Top 20 ICT Contractors — Table 5.2

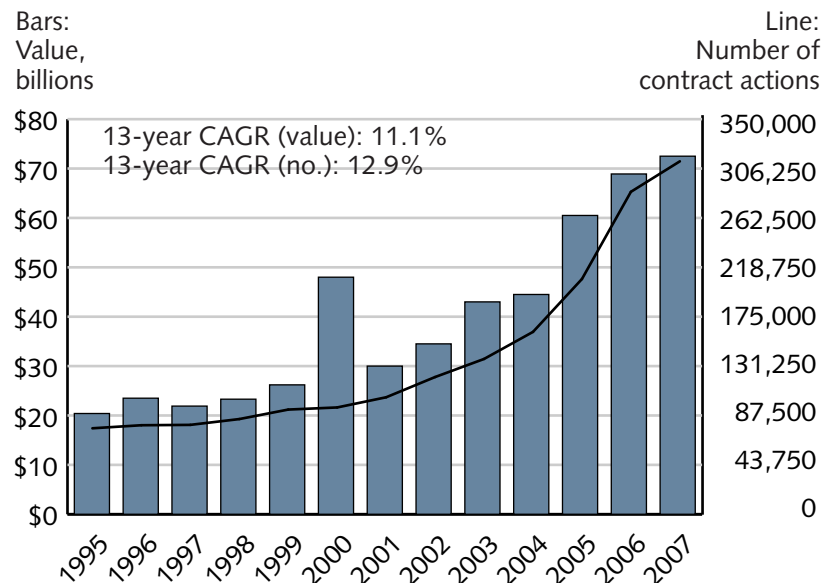
In 1995, the Top 5 ICT services providers controlled 27 percent of the market, while the Top 20 controlled 44 percent. By 2007, the Top 5 providers' share of the market had grown to 32.5 percent, while the Top 20 had increased their share to 54 percent.



# Professional, Administrative, and Management Support Services

## In this chapter:

- 13-year summary of PAMS services
- Top 10 customers for PAMS services
- Market growth by value and number of contract actions
- Average values of contracts and contract actions
- Number of contractors
- Market share trends in distribution of small, medium, large companies
- Top 20 contractors (1995 and 2007)

**Figure 6.1. Growth of the Federal PAMS Market, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### PAMS Market Growth — Figure 6.1

The market for federal professional, administrative, and management support (PAMS) services has witnessed relatively strong growth during the 13 years between 1995 and 2007. From slightly more than \$20 billion, it has climbed at a compound annual growth rate of 11 percent to some \$72.5 billion. There was one anomalous year in 2000 as the market spiked to \$48 billion worth of contracts in order to deal with the Y2K computer problem. Nevertheless, a 14 percent CAGR in the past five years makes the PAMS segment the most robust and fastest growing in the industry.

### Key PAMS Customers — Figure 6.2

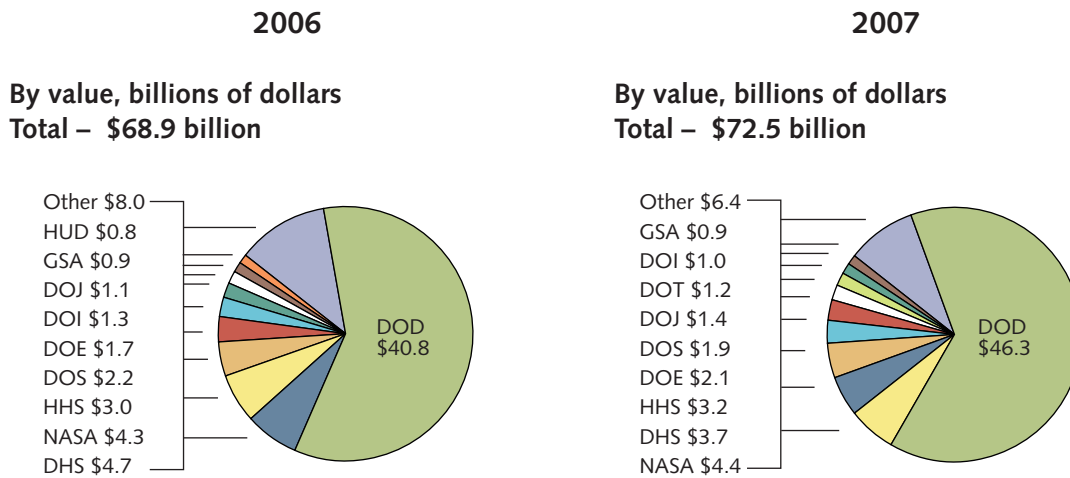
The Department of Defense accounts for almost two-thirds (64 percent) of contract actions—by value—awarded. NASA was a distant second-largest customer at 6 percent.

### Evolution of PAMS Contract and Contract Action Sizes — Figure 6.3

Average value for PAMS contract actions remained relatively constant throughout 1995–2004, at around \$300,000, before dropping to around \$230,000 in 2005–2007. The only exception was in 2000, when the average contract action was approximately \$529,000—the result of contract actions awarded in response to the Y2K computer compliance issue. The average contract remained constant at about \$1 million until 2003 (with a spike to \$2 million in 2000), and then dropped sharply to less than \$500,000 in 2005–2007.

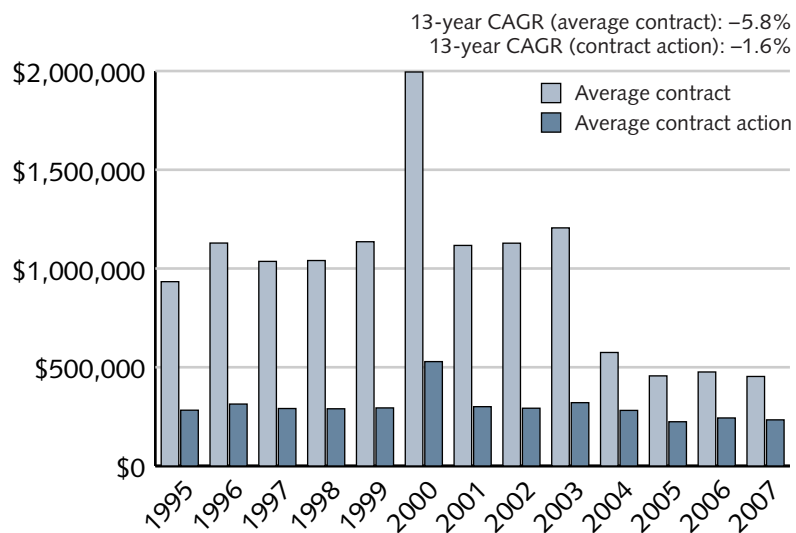
It is worth noting that compared with the other professional services categories, a large share of PAMS contracts are awarded using indefinite delivery indefinite quantity (IDIQs). For example, LOGCAP was awarded \$4.7 billion in 2007, and United Space Alliance \$1.8 billion, both using IDIQs.

**Figure 6.2. Federal PAMS Market, by Customer, 2006 and 2007**

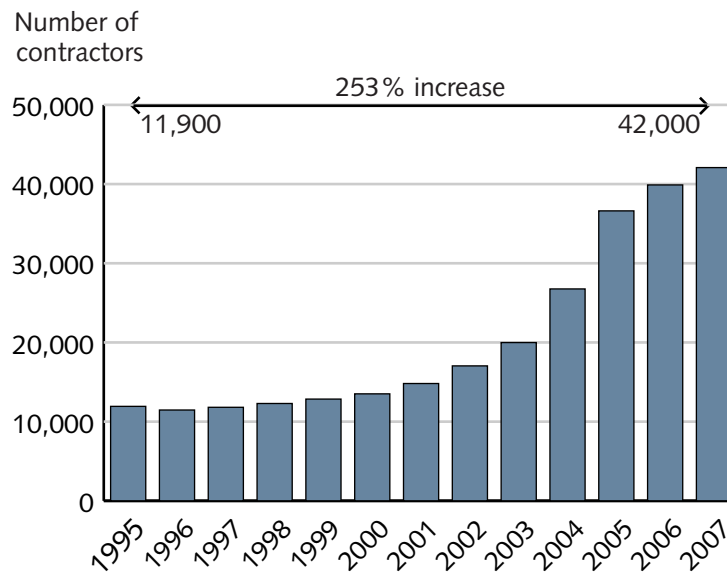


Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 6.3. Average Values of Federal PAMS Services Contracts and Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 6.4. Number of Federal PAMS Contractors, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of the PAMS Contractor Base — Figure 6.4

The number of competitors in the PAMS market has more than tripled during the past 13 years, with the bulk of the increase occurring since 2001 and very large jumps in 2004 and 2005.

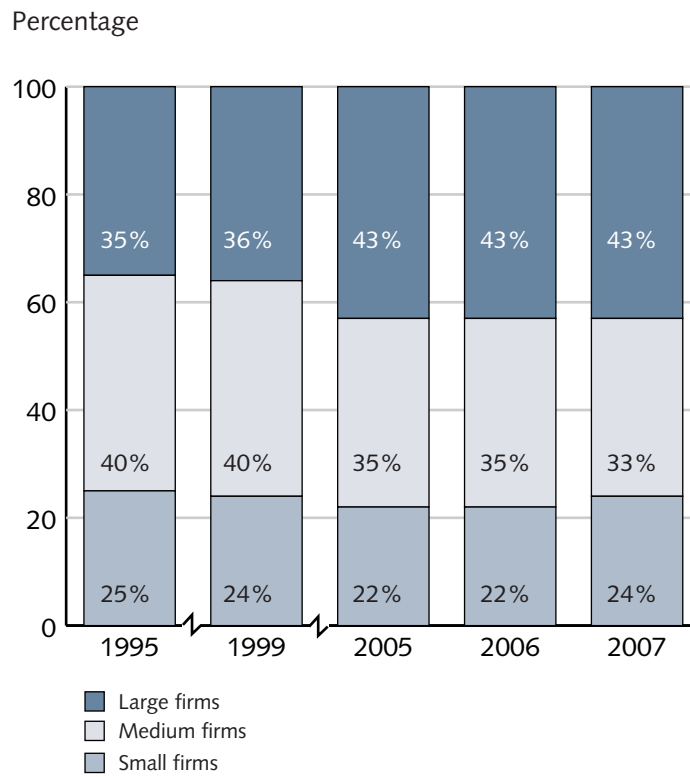
### Evolution of PAMS Contractors' Market Shares — Figure 6.5

Similar to all the other segments, the middle tier of the PAMS market has lost market share to the small and large companies. Small firms have maintained their share of the PAMS market at 24 percent of the total value of all contract actions awarded in 2007, and large firms have increased their share of the market to 43 percent of the value of contracts awarded.

### Breakdown According to Size of PAMS Contractors — Figure 6.6

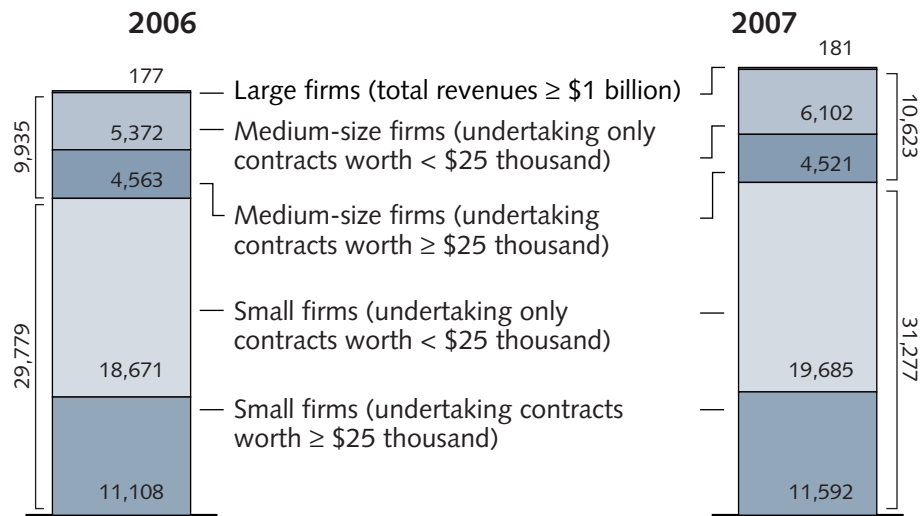
The PAMS sector witnessed relatively small growth in the number of new companies between 2006 and 2007: an addition of only four large companies (2 percent growth), and an increase of 5 and 7 percent for small and medium firms, respectively. However, the number of medium-sized firms undertaking contracts worth less than \$25,000 rose by almost 14 percent. Though growth rates of small firms taking contracts worth \$25,000 or more were robust in previous years (around 10 percent), they dropped to 4.4 percent in 2006–2007.

**Figure 6.5. Distribution, by Value of Contract Actions, of Federal PAMS Market to Small, Medium, and Large Firms, 1995, 1999, 2005, 2006, and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 6.6. Number of Small, Medium, and Large Firms in the Federal PAMS Services Market, 2006 and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Table 6.1. Percentage of PAMS Contractors Participating in Other Professional Services Categories, 1995 and 2007**

1995				2007			
ICT	R&D	ERS	FRS	ICT	R&D	ERS	FRS
7	13	6	6	9	11	12	12

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### **Cross-Category Participation by PAMS Contractors — Table 6.1**

Companies in the PAMS segment have for the most part not been very active in other categories. The highest level of cross-segment activity was seen among companies undertaking both PAMS studies and equipment-related (ERS) contracts and facilities-related (FRS) contracts. In 2007, 12 percent of all firms in the PAMS segment also had contracts in these two categories.

Table 6.2. Top 20 Federal PAMS Contractors, 1995 and 2007

Rank	1995		2007	
	Company	Value of contract actions (\$)	Company	Value of contract actions (\$)
1	Lockheed Martin	1,021,073,000	KBR	4,781,502,440
2	Northrop Grumman	783,388,000	Northrop Grumman	4,768,992,313
3	Raytheon	574,654,000	Lockheed Martin	2,662,898,049
4	SAIC	451,613,000	L-3 Communications	2,069,059,028
5	Boeing	404,864,000	SAIC	1,528,978,858
	<b>Subtotal for Top 5</b>	<b>3,235,592,000</b>		<b>15,811,430,689</b>
6	TRW	312,428,000	CSC	1,309,069,911
7	CSC	255,358,000	Booz Allen Hamilton	1,244,004,942
8	Rockwell	195,128,000	General Dynamics	1,025,315,899
9	Booz Allen Hamilton	188,990,000	Boeing	1,010,240,315
10	DynCorp	188,497,000	Raytheon	978,945,522
11	Bechtel	174,725,000	BAE Systems	950,257,644
12	Loral	154,621,000	CACI	857,945,473
15	General Dynamics	142,062,000	Institute for Defense Analyses	603,492,338
14	Newport News	120,571,000	MITRE	483,562,783
15	EG&G	110,579,000	DynCorp	407,405,412
16	EDS	102,622,000	Honeywell	380,961,639
17	Westinghouse	101,889,000	ITT	380,155,627
18	General Electric	98,694,000	IBM	366,200,369
19	Logicon	93,189,000	Mantech	347,304,403
20	Jacobs Engineering Group	89,606,000	General Electric	287,658,240
	<b>Total for Top 20</b>	<b>5,564,551,000</b>		<b>26,443,951,205</b>

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### Top 20 PAMS Contractors — Table 6.2

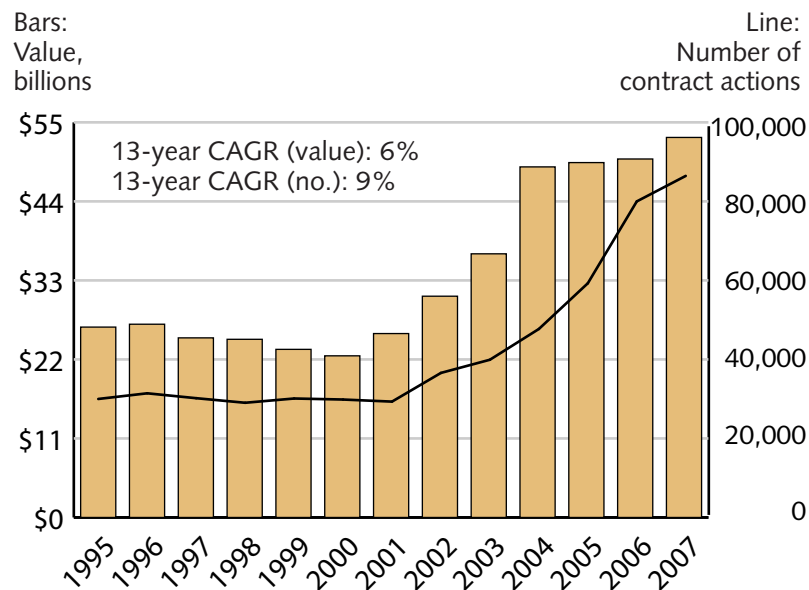
The market share of the Top 5 players in the federal PAMS market grew from 16 percent of the value of all contract actions awarded in 1995 to 22 percent in 2005, where it has remained in 2007. Note that the Halliburton LOGCAP contract, worth some \$5 billion, was classified as a PAMS contract in the 2005 FPDS and accounted for the high levels of spending in this category that year (as well as for the number one position of Halliburton in the PAMS Top 20 list in 2005). The share of the Top 20 companies in the PAMS segment total also remained stable in 1995 compared with 2005, at around 27 percent, but leaped to more than 36 percent by 2007.



# Research and Development Services

## In this chapter:

- 13-year summary of the R&D services market
- Top 10 customers for R&D services
- Market growth by value and number of contract actions
- Average values of contracts and contract actions
- Number of contractors
- Market share trends in distribution of small, medium, and large companies
- Top 20 contractors (1995 and 2007)

**Figure 7.1. Growth of the Federal R&D Services Market, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### R&D Services Market Growth Figure — 7.1

At just under \$53 billion in 2007 contract awards, the federal market for the research and development (R&D) services segment is the second largest in the professional services market, after PAMS. With the Department of Defense as their largest customer, R&D services have broadly followed the growth trends of the overall defense budget, declining through the 1990s and then seeing strong growth since 2002. Having been constant in 2004–2006 at approximately \$49 billion, the R&D segment grew again in 2007 for a 10 percent annual growth rate in the past five years.

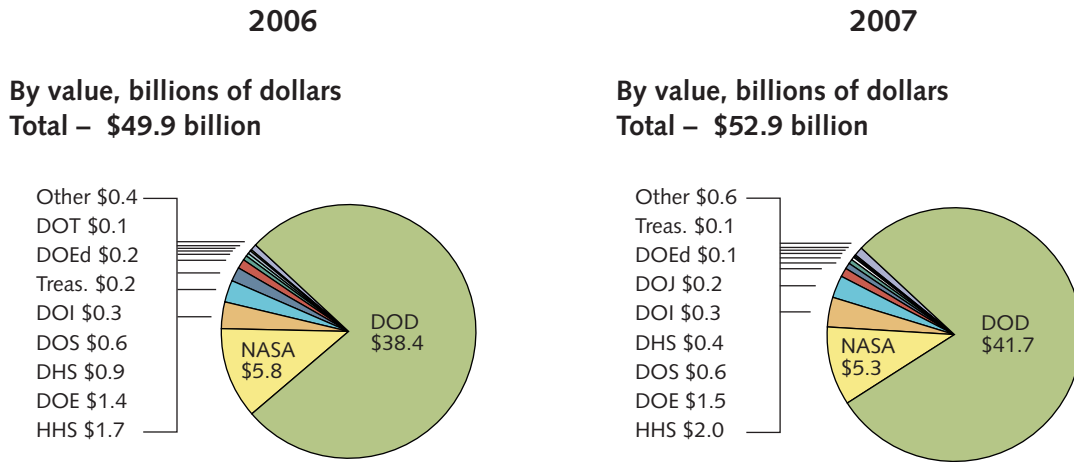
### Key R&D Services Market Customers — Figure 7.2

The biggest customer by far for R&D services is the Department of Defense, with 79 percent of the market in 2007. NASA (10 percent) and the Department of Health and Human Services (4 percent) are the next largest customers.

### Evolution of R&D Contract and Contract Action Sizes — Figure 7.3

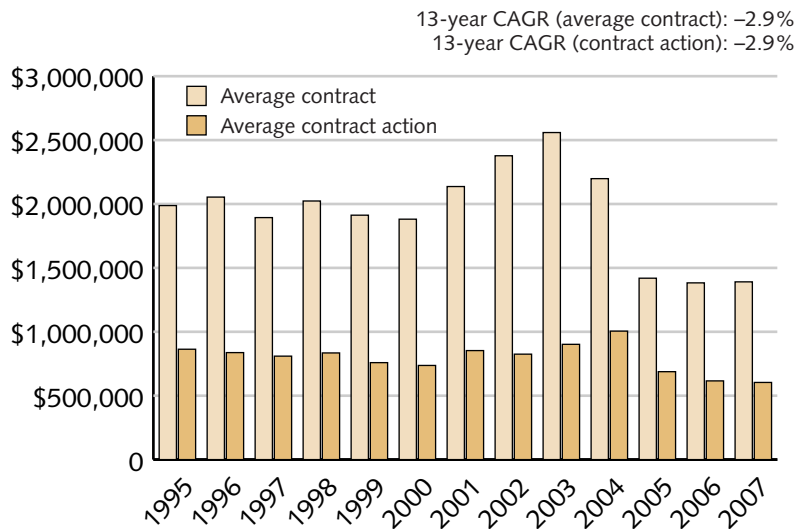
The value of the average R&D services contract action remained relatively constant during the 1995–2003 period, at around \$800,000, spiked to \$1,000,000 in 2004, and then dropped back to approximately \$600,000 during the past three years. This makes R&D services the segment with the highest average contract action value in the federal services market. The same is also true for the value of the average R&D contract, which was constant at around \$2 million through 2004 and then dropped to around \$1.5 million in 2005–2007.

**Figure 7.2. Federal R&D Services Market, by Customer, 2006 and 2007**

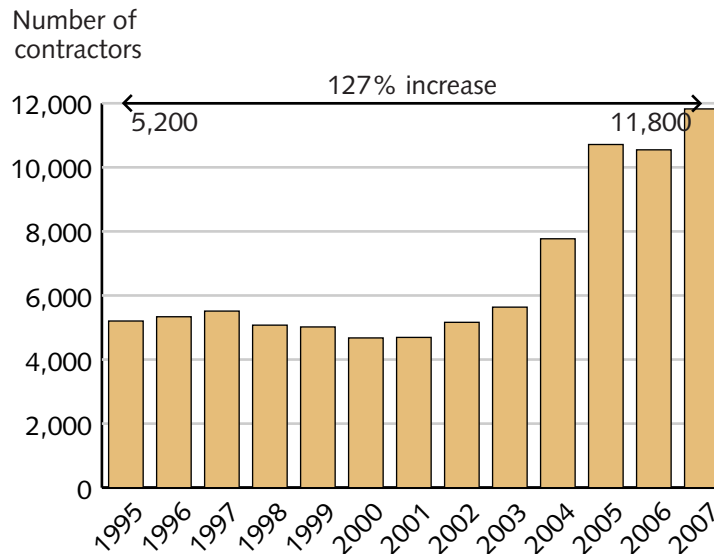


Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 7.3. Average Values of Federal R&D Services Contracts and Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 7.4. Number of Federal R&D Services Contractors, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of the R&D Contractor Base Figure — 7.4

The number of competitors in the R&D market was very stable, at just over 5,000 firms, until 2003, at which point it more than doubled to almost 12,000. Nevertheless, this is a considerably slower rate of growth and a much smaller contractor base compared with most other sectors.

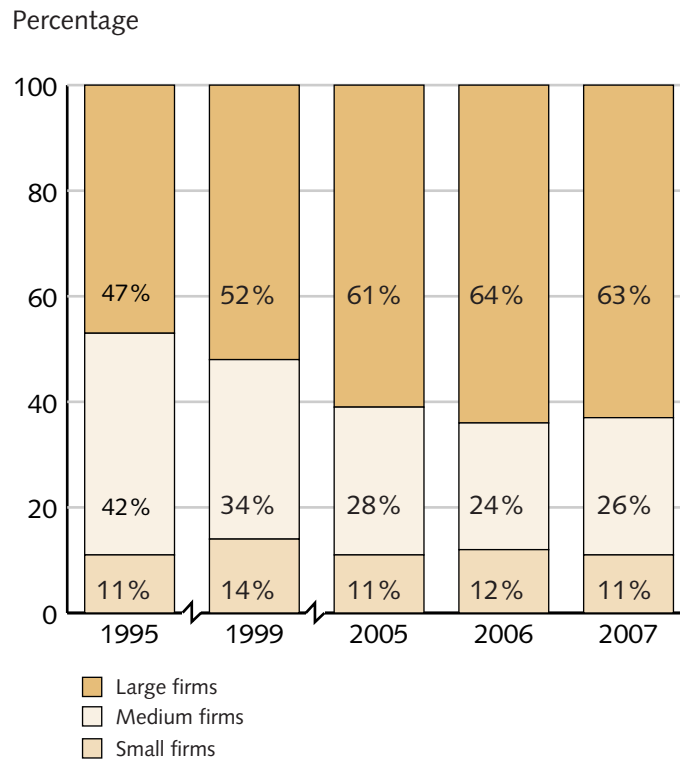
### Evolution of R&D Contractors' Market Shares — Figure 7.5

The R&D services segment is oriented toward larger firms more than other market segments. This is the segment with the lowest share held by small businesses. In 2005 the large firms controlled almost 63 percent of this segment, squeezing out the medium as well as the small companies.

### Breakdown According to Size of R&D Contractors — Figure 7.6

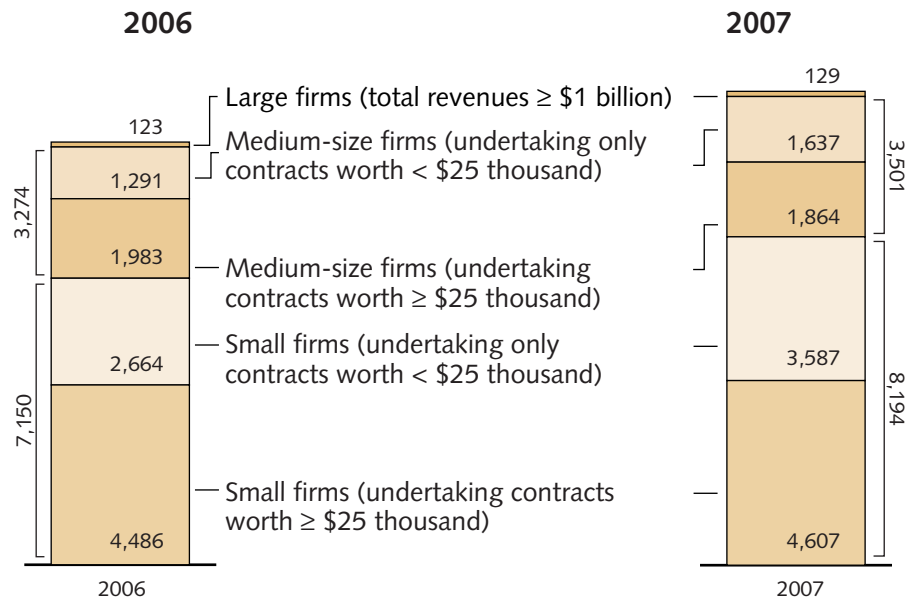
The numbers of large, medium, and small firms all increased (by 5, 7, and 15 percent respectively) but at much slower rates than in previous years (13, 29, and 34 percent, respectively, in 2004–2005). The number of small and medium-sized firms undertaking only small contracts (worth less than \$25,000) grew at 35 and 27 percent, respectively (they had more than doubled in 2004–2005). However, there was a 6 percent drop in the number of medium-sized firms taking large contracts (worth \$25,000 or more).

**Figure 7.5. Distribution, by Value of Contract Actions, of Federal R&D Services Market to Small, Medium, and Large Firms, 1995, 1999, 2005, 2006, and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 7.6. Number of Small, Medium, and Large Firms in the Federal R&D Services Market, 2006 and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Table 7.1. Percentage of R&D Contractors Participating in Other Professional Services Categories, 1995 and 2007**

1995				2007			
ICT	PAMS	ERS	FRS	ICT	PAMS	ERS	FRS
9	30	9	4	11	39	15	16

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### **Cross-Category Participation by R&D Contractors — Table 7.1**

Companies involved in the R&D segment deepened their participation in every other segment of the professional services market during the 1995–2007 period. The greatest increase occurred with R&D firms undertaking more professional, administrative, and management support (PAMS) contracts—39 percent of all R&D contractors took on PAMS contract actions in 2007—and more facilities-related services (FRS) contracts as well. Because the R&D companies are primarily the major defense hardware firms, this trend is actually reflective of the broader phenomenon of defense hardware companies increasing their presence in the services market from 1995 to 2007.

**Table 7.2. Top 20 Federal R&D Contractors, 1995 and 2007**

Rank	1995		2007	
	Company	Value of contract actions (\$)	Company	Value of contract actions (\$)
1	Lockheed Martin	4,537,281,000	Lockheed Martin	9,038,109,033
2	Boeing	2,053,125,000	Boeing	8,047,714,021
3	Northrop Grumman	1,060,062,000	Raytheon	2,910,579,114
4	Rockwell	763,278,000	Northrop Grumman	2,771,840,226
5	Raytheon	635,547,000	General Dynamics	1,212,947,307
	<b>Subtotal for Top 5</b>	<b>9,049,293,000</b>		<b>23,981,189,700</b>
6	General Electric	606,956,000	Battelle	971,007,202
7	Loral	503,876,000	United Technologies	843,647,128
8	TRW	474,497,000	SAIC	805,220,785
9	SAIC	337,129,000	Aerospace Corp.	612,298,149
10	United Technologies	274,775,000	DynCorp	580,066,433
11	MITRE	273,833,000	Booz Allen Hamilton	554,185,915
12	Texas Instruments	273,718,000	Bechtel	477,312,573
15	CSC	234,933,000	BAE Systems	468,843,210
14	Westinghouse	218,167,000	ITT	465,516,445
15	Unisys	158,625,000	Joint venture (GE and Rolls-Royce)	430,919,321
16	United Defense	142,703,000	L-3 Communications	341,658,835
17	IBM	131,911,000	MITRE	326,119,165
18	General Dynamics	129,637,000	CSC	215,464,487
19	Harris	84,287,000	Textron	208,626,154
20	Logicon	77,478,000	CACI	194,181,393
	<b>Total for Top 20</b>	<b>12,971,818,000</b>		<b>31,476,256,896</b>

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

**Top 20 R&D Contractors — Table 7.2**

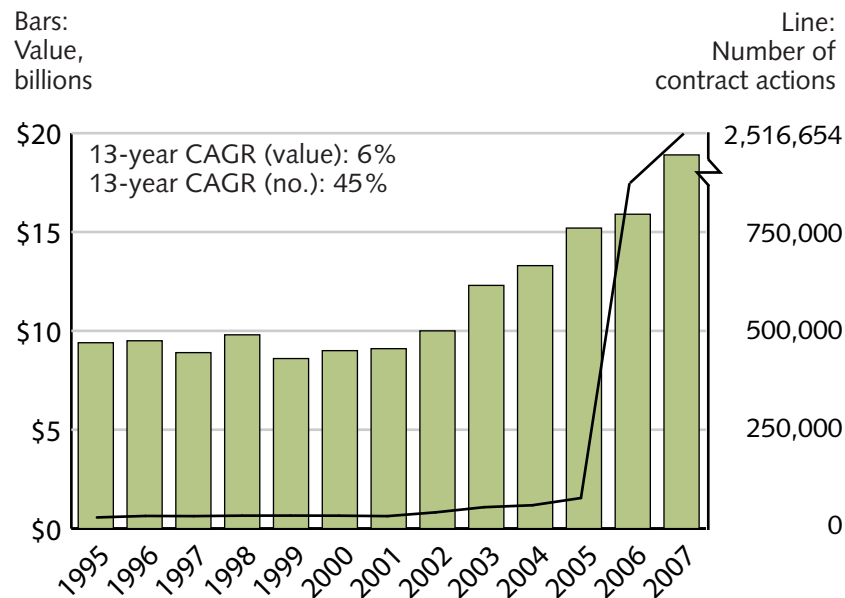
The R&D market has become more concentrated during the past decade, with the Top 5 federal R&D services contractors receiving 45 percent of all the awards in 2007 (stable compared with 2005) compared with 34 percent in 1995. As expected, the Top 5 consist of the major defense hardware contractors. A similar trend is evident in the Top 20, which received approximately 50 percent of the awards in 1995 and almost 60 percent in 2007.



# Equipment-Related Services

**In this chapter:**

- 13-year summary of ERS
- Top 5 customers for ERS
- Market growth by value and number of contract actions
- Average values of contracts and contract actions
- Number of contractors
- Market share trends of small, medium, and large companies
- Top 20 contractors (1995 and 2007)

**Figure 8.1. Growth of the Federal ERS Market, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### ERS Market Growth — Figure 8.1

From 1995 to 2001 the equipment-related services (ERS) market was essentially flat, despite calls for increased outsourcing of this type of work to private industry. It was not until the wars in Afghanistan and Iraq and the high operational tempo of the U.S. armed forces that the market demonstrated any substantial growth. In the past five years, the total value of ERS contract actions leaped from \$10 billion in 2002, to \$15.2 billion in 2005, and to \$18.9 billion in 2007. The increase in total number of contract actions was even more dramatic, from 41,630 in 2002 to 2.5 million in 2007. This has been driven primarily by the Department of Veterans Affairs initiative to provide more outpatient services via private contractors, which resulted in a flurry of contract actions awarded for equipment rental and equipment maintenance.

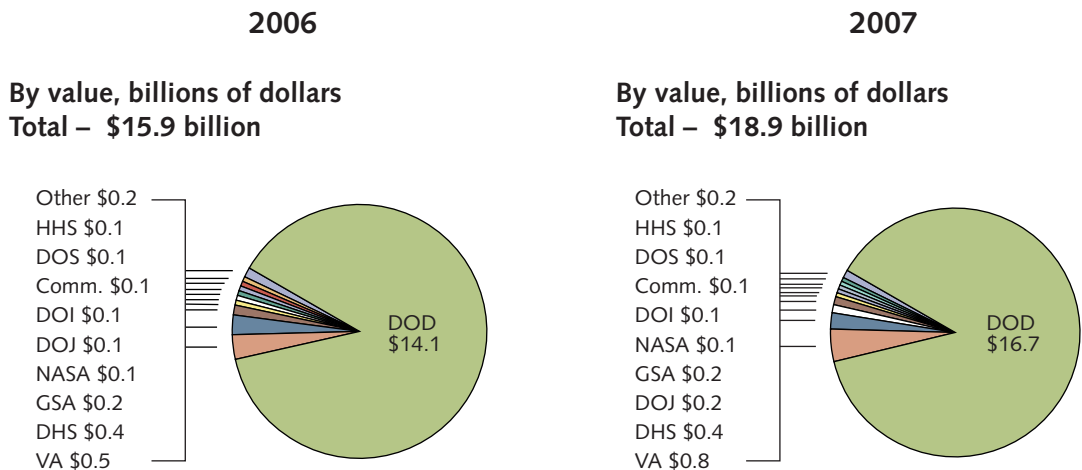
### Key ERS Customers — Figure 8.2

Because the Department of Defense is by far the largest customer for these types of services—89 percent of the 2007 market—this growth can be attributed to the increased operational tempo of U.S. military forces during the past six years.

### Evolution of ERS Contract and Contract Action Sizes — Figure 8.3

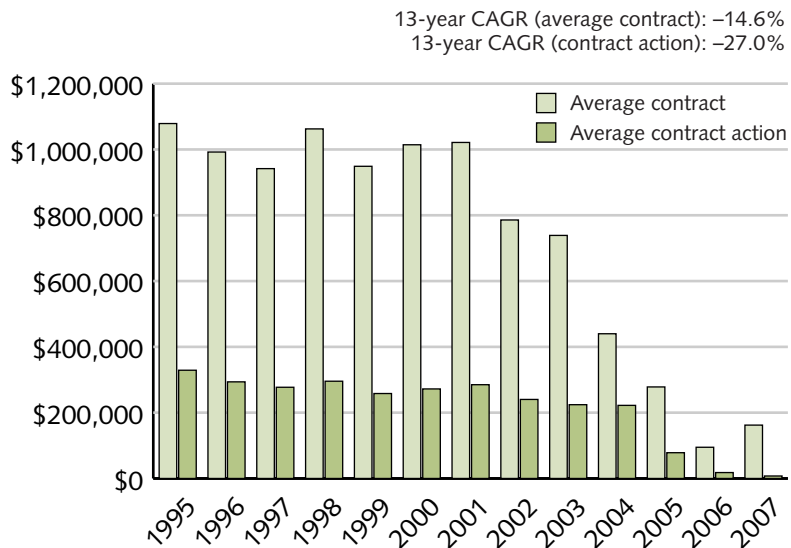
Because the post-2001 war-related activity has triggered large numbers of small contract actions, the average value of a contract action in the ERS segment has dropped significantly, from \$330,000 in 1995, to \$78,000 in 2005, and to \$7,500 in 2007. Meanwhile, the average contract dropped from \$1.1 million in 1995 to \$162,000 in 2007. Although a similar downward trend is evident in the other professional services categories, it is particularly pronounced in the ESR segment, with a 15 percent annual decline in dollar value and a 27 percent annual decline in number of contract actions between 1995 and 2007.

**Figure 8.2. Federal ERS Market, by Customer, 2006 and 2007**

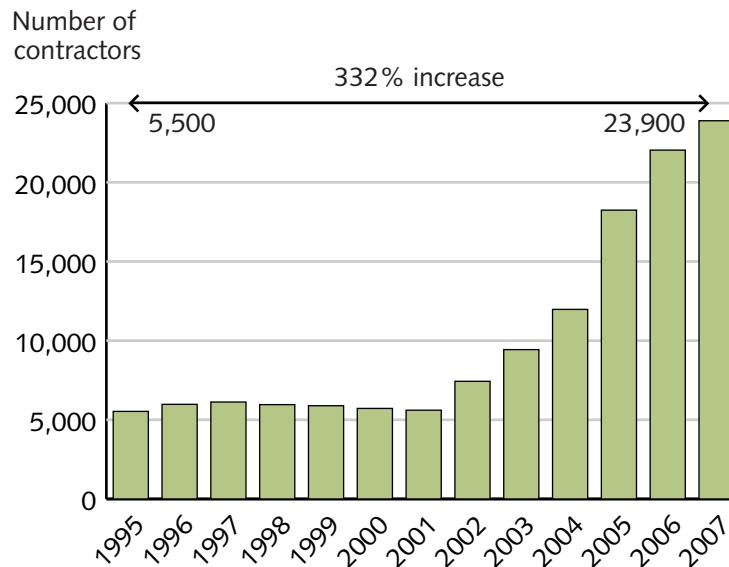


Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 8.3. Average Values of Federal ERS Contracts and Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 8.4. Number of Federal ERS Contractors, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of the ERS Contractor Base — Figure 8.4

The number of competitors in the ERS market from 1995 to 2001 matched the lack of growth in the segment. The number of federal ERS contractors during that period remained constant at between 5,500 and 6,000 firms. With the jump in the number of ERS contracts since 2002, however, the number of competitors has increased more than threefold, to 23,890 firms.

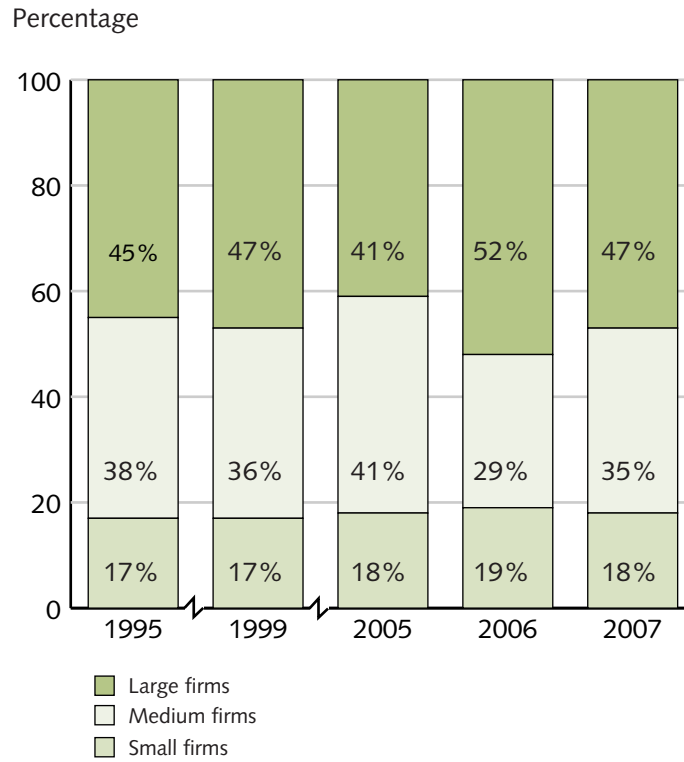
### Evolution of ERS Contractors' Market Shares — Figure 8.5

Unlike other sectors of the professional services industry, the ERS sector has witnessed several changes in the market shares held by small, medium, and large companies during the past 13 years. Rather than a continued squeezing of the middle tier, the market shares of the large and mid-sized companies in the ERS segment have fluctuated significantly. Large companies held only 41 percent of the market in 2005, and then peaked in 2006 with 52 percent before returning to 47 percent in 2007, which is similar to the market share they held in the second half of the 1990s. Mid-tier companies experienced the opposite trend, holding their highest market share (41 percent) in 2005 and their lowest (29 percent) in 2006, before returning to the mid-1990s level of 35 percent in 2007.

### Breakdown According to Size of ERS Contractors — Figure 8.6

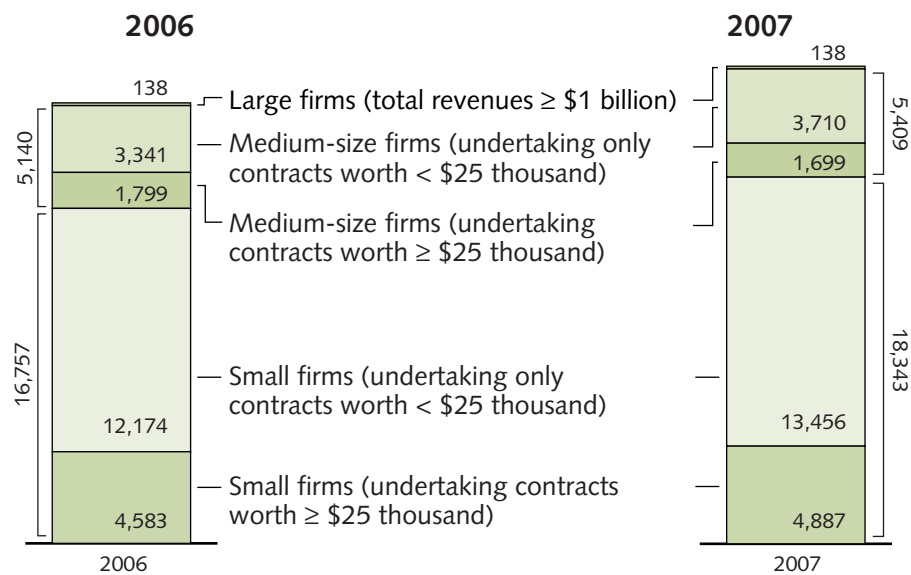
The number of large companies in the ERS sector decreased from 147 in 2005 to 138 in 2006 and remained the same in 2007. The number of small and medium-sized firms grew by 9.5 and 5 percent, respectively, but this is nowhere near the growth rates witnessed only two years earlier, when small and medium-sized firms grew by 45 and 31 percent, respectively. The decline in medium-sized firms undertaking large contracts (\$25,000 and more), first observed in 2004–2005 (when it was 3 percent), accelerated and reached 5.6 percent in 2006–2007.

**Figure 8.5. Distribution, by Value of Contract Actions, of Federal ERS Market to Small, Medium, and Large Firms, 1995, 1999, 2005, 2006, and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 8.6. Number of Small, Medium, and Large Firms in the Federal ERS Market, 2006 and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Table 8.1. Percentage of ERS Contractors Participating in Other Professional Services Categories, 1995 and 2007**

1995				2007			
ICT	PAMS	R&D	FRS	ICT	PAMS	R&D	FRS
11	13	8	12	9	21	7	20

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### **Cross-Category Participation by ERS Contractors — Table 8.1**

The companies in the ERS segment are not very active in other segments. During the 13-year period, more of the firms became involved in the professional, administrative, and management support (PAMS) segment, and there has been increased penetration of the facilities-related services (FRS) segment, likely a result of combining the repair of equipment with the maintenance of repair facilities.

Table 8.2. Top 20 Federal ERS Contractors, 1995 and 2007

Rank	1995		2007	
	Company	Value of contract actions (\$)	Company	Value of contract actions (\$)
1	Lockheed Martin	825,556,000	Lockheed Martin	1,536,108,031
2	Newport News	497,918,000	General Dynamics	1,335,971,891
3	Rockwell	465,145,000	L-3 Communications	1,237,497,853
4	Boeing	268,426,000	Raytheon	651,161,576
5	DynCorp	247,362,000	BAE Systems	643,783,119
	<b>Subtotal for Top 5</b>	<b>2,304,407,000</b>		<b>5,404,522,470</b>
6	General Electric	220,530,000	CSC	561,040,843
7	Northrop Grumman	206,657,000	ITT	462,653,801
8	Loral	195,614,000	Northrop Grumman	456,007,266
9	GTE	189,009,000	Boeing	414,837,392
10	Raytheon	170,677,000	Textron	296,786,364
11	IBM	164,284,000	SAIC	190,377,687
12	Rolls-Royce	95,838,000	EADS	181,926,032
15	United Technologies	86,804,000	Honeywell	170,485,272
14	General Dynamics	78,605,000	Xerox	112,110,334
15	Unisys	63,273,000	General Electric	66,261,461
16	AT&T	63,101,000	Rolls-Royce	37,726,566
17	Harris	59,515,000	Harris Corporation	37,145,548
18	Xerox	48,266,000	Joint venture (Northrop Grumman and SAIC)	35,491,448
19	CSC	27,645,000	CACI	31,769,687
20	Westinghouse	22,795,000	Joint venture (Bell and Boeing)	31,635,755
	<b>Total for Top 20</b>	<b>3,997,020,000</b>		<b>8,490,777,926</b>

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### Top 20 ERS Contractors Table — 8.2

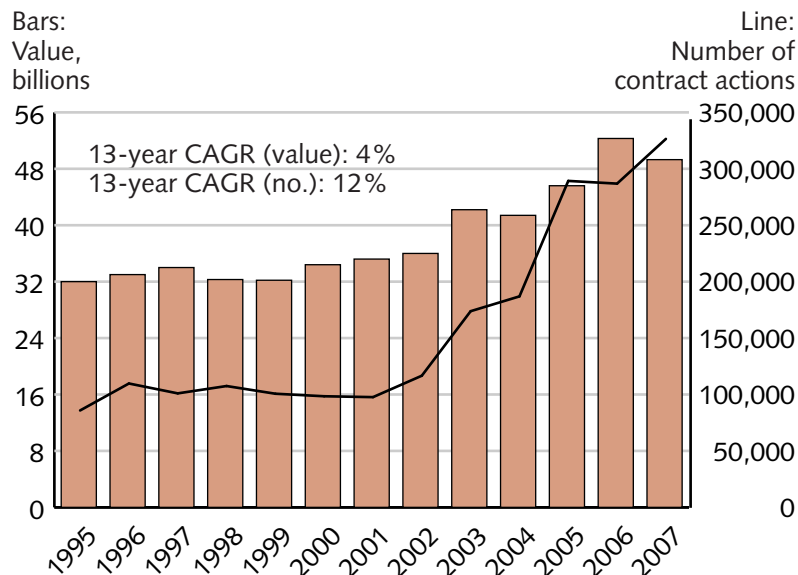
There has been some change in the market shares of the Top 20 ERS companies; they controlled 43 percent of the market in 1995, 49 percent in 2005, and 45 percent in 2007. The share of the Top 5, however, rose from approximately 24 percent in 1995 to 28.5 percent in 2007.



# Facilities-Related Services

**In this chapter:**

- 13-year summary of FRS
- Top 10 customers for FRS
- Market growth by value and number of contract actions
- Average values of contracts and contract actions
- Number of contractors
- Market share trends of small, medium, and large companies
- Top 20 contractors (1995 and 2007)

**Figure 9.1. Growth of the Federal FRS Market, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### FRS Market Growth — Figure 9.1

The facilities-related services (FRS) segment has been a relatively large—\$49.3 billion in contract actions in 2007—but slowly growing market. During the past 13 years, the FRS market has expanded at a mere 4 percent compound annual growth rate. In 2005, however, the market jumped almost 10 percent and another 14 percent in 2006. This growth stalled in 2007, with a 6 percent decline in dollar value. Even so, the number of contract actions awarded grew by 288 percent, from 83,500 in 1995 to 324,119 in 2007.

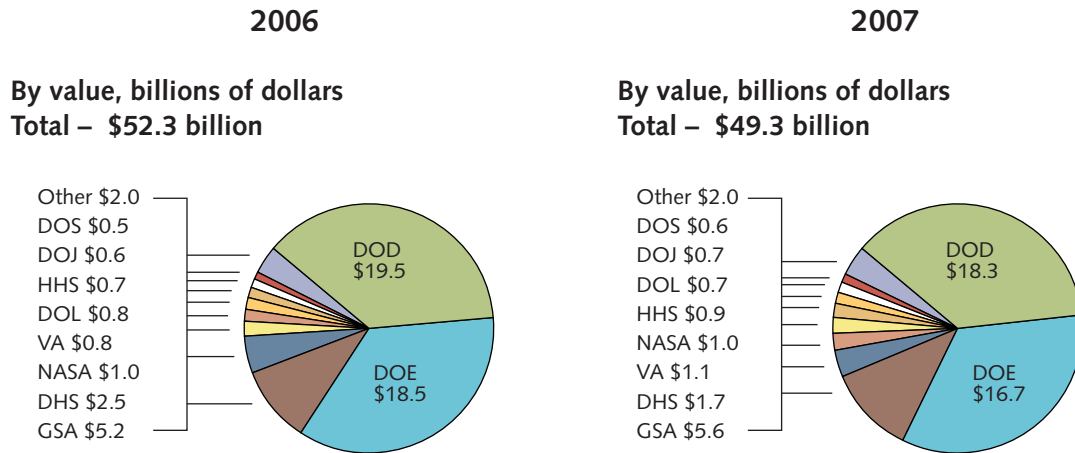
### Key FRS Customers — Figure 9.2

The Department of Defense and the Department of Energy are the two large customers in this segment. The \$18 billion worth of contract actions awarded by DOD and the \$17 billion awarded by DOE account for more than 70 percent of all federal expenditures on facilities-related services. The DOE market is driven by large contracts to manage DOE nuclear facilities and other research facilities.

### Evolution of FRS Contract and Contract Action Sizes — Figure 9.3

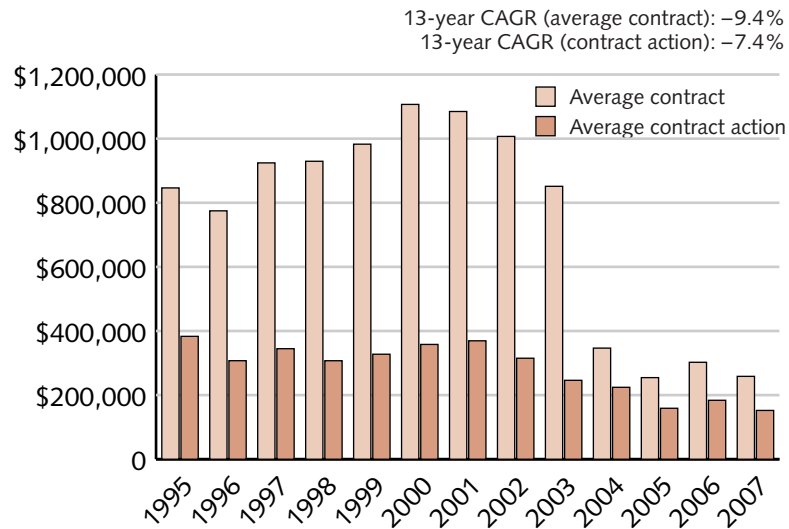
The average contract and contract action values in FRS have fluctuated greatly during the 1995–2007 period. The downtrend in size of both since 2001 was particularly strong in 2003–2004, reaching slightly above \$152,000 per average contract action and \$258,000 per average contract in 2007.

**Figure 9.2. Federal FRS Market, by Customer, 2006 and 2007**

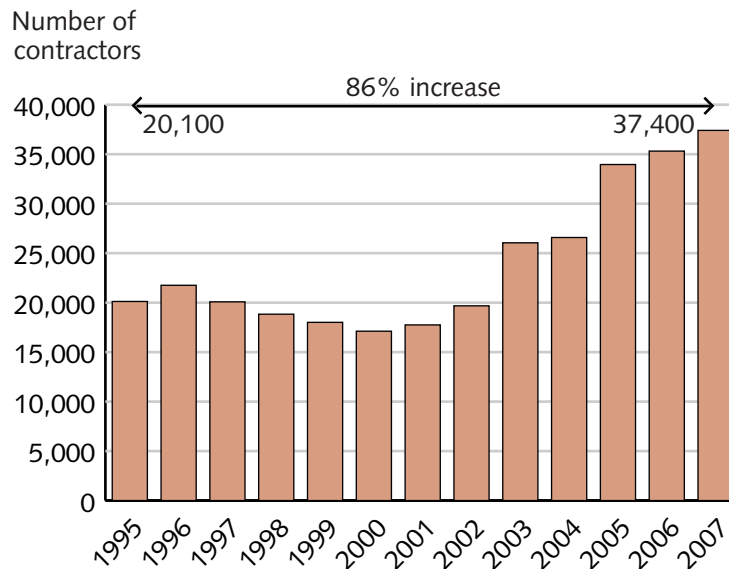


Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 9.3. Average Values of Federal FRS Contracts and Contract Actions, 1995–2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 9.4. Number of Federal FRS Contractors, 1995–2007**

Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

### Evolution of the FRS Contractor Base — Figure 9.4

Of the five professional services categories analyzed in this report, the FRS segment has shown the least change in the number of competitors for contracts. This segment actually saw a decline in contractors at the end of the 1990s. The ranks of the FRS segment were replenished only after 2001, with significant jumps occurring in 2003 and 2005.

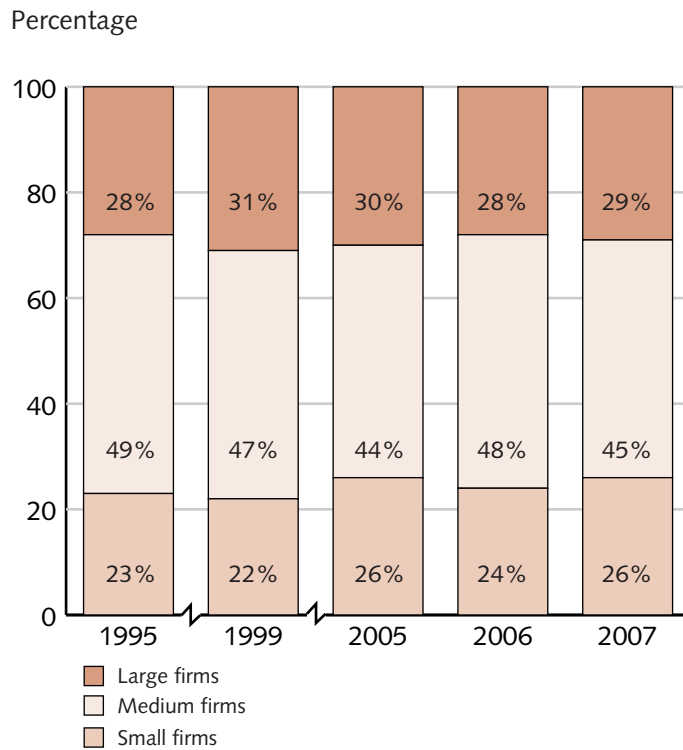
### Evolution of FRS Contractors' Market Shares — Figure 9.5

The FRS segment is one of the most fragmented sectors in the federal professional services market. Small companies increased their share from 23 percent in 1995 to 26 percent in 2007, while the large firms modestly increased their presence from 28 percent of the market in 1995 to 29 percent in 2007. The middle tier was squeezed from 49 percent to 45 percent during same period.

### Breakdown According to Size of FRS Contractors — Figure 9.6

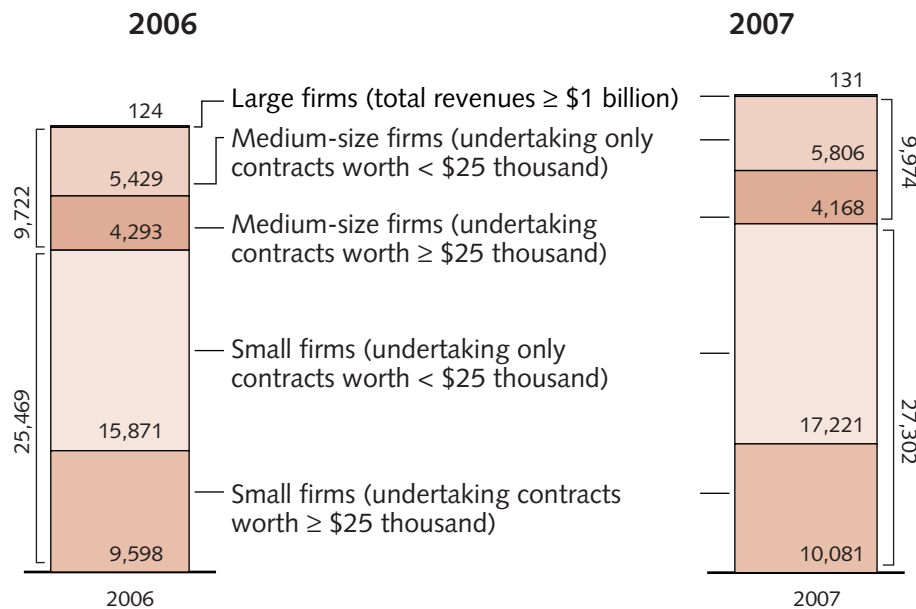
Seven large firms joined the FRS sector in 2007 (a 5.5 percent increase), compared with 11 in 2004–2005 (a 9.5 percent increase). Growth was much slower for small and medium-sized firms as well, at 7 and 2.5 percent, respectively (compared with 14 and 17 percent, respectively, in 2004–2005). Small firms taking on large contracts (worth \$25,000 or more) grew by 5 percent, but their medium-sized equivalent decreased by 3 percent.

**Figure 9.5. Distribution, by Value of Contract Actions, of Federal FRS Market to Small, Medium, and Large Firms, 1995, 1999, 2005, 2006, and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Figure 9.6. Number of Small, Medium, and Large Firms in the Federal FRS Market, 2006 and 2007**



Source: Federal Procurement Data System; analysis by CSIS Defense Industrial Initiatives Group.

**Table 9.1. Percentage of FRS Contractors Participating in Other Professional Services Categories, 1995 and 2007**

1995				2007			
ICT	PAMS	R&D	ERS	ICT	PAMS	R&D	ERS
1	4	1	3	4	14	5	13

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### **Cross-Category Participation by FRS Contractors — Table 9.1**

Compared with competitors in other segments, companies in the FRS market are the least active in other federal services categories. But from a modest base, the FRS firms have been expanding their participation in other segments. The biggest increase has occurred in the professional, administrative, and management support (PAMS) and equipment-related services (ERS) segments, with 14 and 13 percent, respectively, of FRS companies (up from 10 and 9 percent in 2005) now taking on these contracts.

Table 9.2. Top 20 Federal FRS Contractors, 1995 and 2007

Rank	1995		2007	
	Company	Value of contract actions (\$)	Company	Value of contract actions (\$)
1	Westinghouse	2,865,366,000	Sandia Corporation	2,466,159,469
2	Lockheed Martin	2,519,757,000	Battelle	2,277,986,864
3	Sandia Corporation	1,159,706,000	Westinghouse	1,371,357,712
4	TRW	261,267,000	BWXT	1,296,550,311
5	Bechtel	200,240,000	CH2M Hill	840,242,268
	<b>Subtotal for Top 5</b>	<b>7,006,336,000</b>		<b>8,252,296,624</b>
6	Raytheon	195,087,000	Fluor Enterprises	810,924,534
7	General Electric	190,423,000	Honeywell	580,471,232
8	DynCorp	169,487,000	Merck	575,065,972
9	Fluor	169,017,000	Bechtel	531,113,439
10	Loral	147,931,000	Johnson Controls	397,357,828
11	Vinnell	132,119,000	KAPL	303,627,711
12	CSC	127,670,000	Raytheon	302,055,851
15	SAIC	98,921,000	Wackenhut	236,414,491
14	Wackenhut	83,608,000	Hess	225,429,303
15	Tokyo Electric Power	78,228,000	URS Group	175,985,443
16	Northrop Grumman	56,757,000	Pepco	168,460,188
17	Johnson Control	49,098,000	CSC	166,655,359
18	Korea Electric Power	39,920,000	ITT	139,012,214
19	Pacific Gas & Electric	38,270,000	Lockheed Martin	113,623,584
20	Res-care	36,551,000	Tetra Tech	104,943,322
	<b>Total for Top 20</b>	<b>8,619,423,000</b>		<b>13,083,437,093</b>

Source: Federal Procurement Data System; analysis by CSIS Defense-Industrial Initiatives Group.

### Top 20 FRS Contractors — Table 9.2

The major engineering firms have become important participants in this market during the past decade. The share of the top contractors, however, grew from 22 percent of the market controlled by the Top 5 in 1995, to 26.5 percent in 2005, before dropping to slightly less than 17 percent in 2007. The Top 20 contractors remained constant with a 27 percent market share in 1995 and a 26.5 percent market share in 2007.

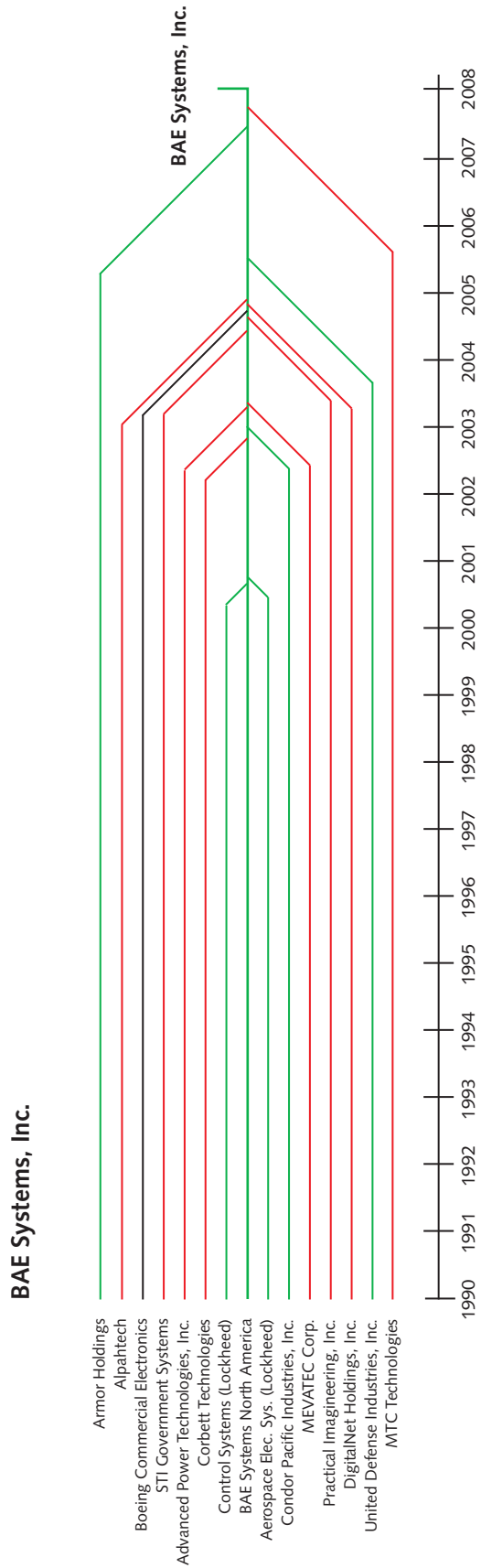


# FPDS Services Categories

- A Research and development
- B Special studies and analyses (not research and development)
- C Architect and engineering services—construction
- D Automatic data processing and telecommunication services
- E Purchase of structures and facilities
- F Natural resources management
- G Social services
- H Quality control, testing, and inspection services
- J Maintenance, repair, and rebuilding of equipment
- K Modification of equipment
- L Technical representative services
- M Operation of government-owned facility
- N Installation of equipment
- P Salvage services
- Q Medical services (not included in this study)
- R Professional, administrative, and management support services
- S Utilities and housekeeping services
- T Photographic, mapping, printing, and publication services
- U Education and training services
- V Transportation, travel, and relocation services
- W Lease or rental of equipment
- X Lease or rental of facilities
- Y Construction of structures and facilities (not included in this study)
- Z Maintenance, repair, or alteration of real property

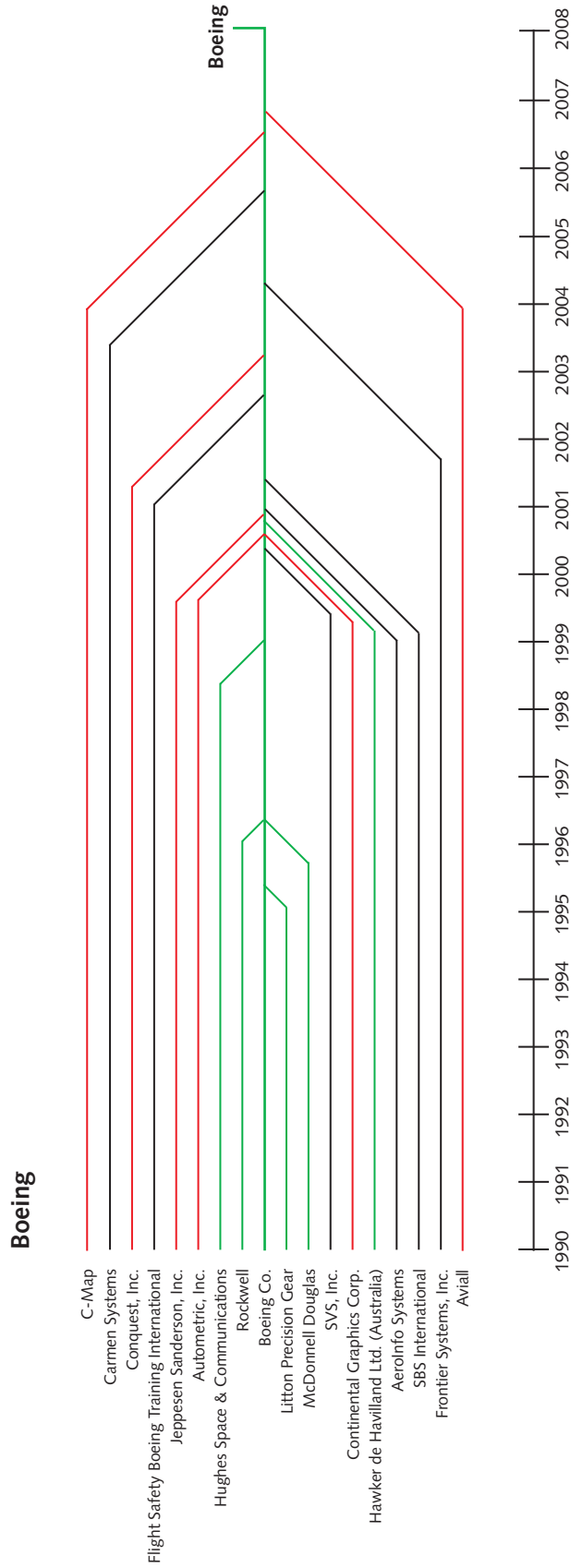
a p p e n d i x b

# Merger and Acquisition Activity, January 1990–December 2007



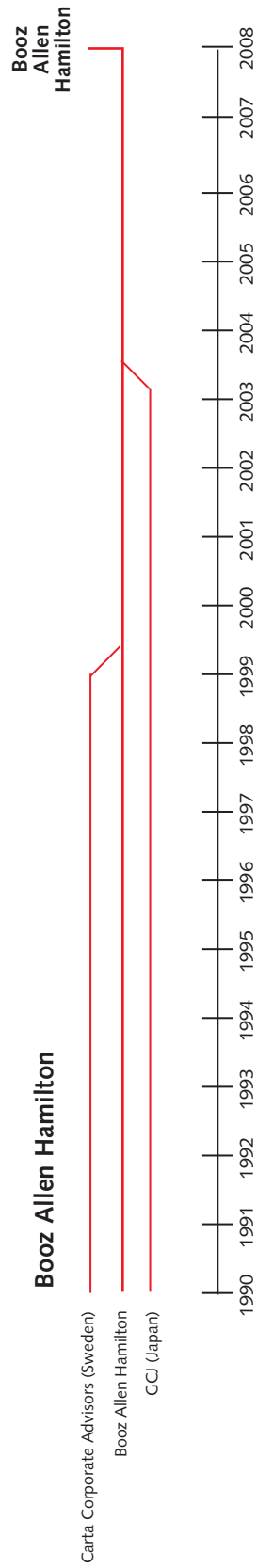
Sources: DM&A, *Washington Technology*, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.

Key: Federal services companies: — ; defense hardware companies: — ; commercial IT: —



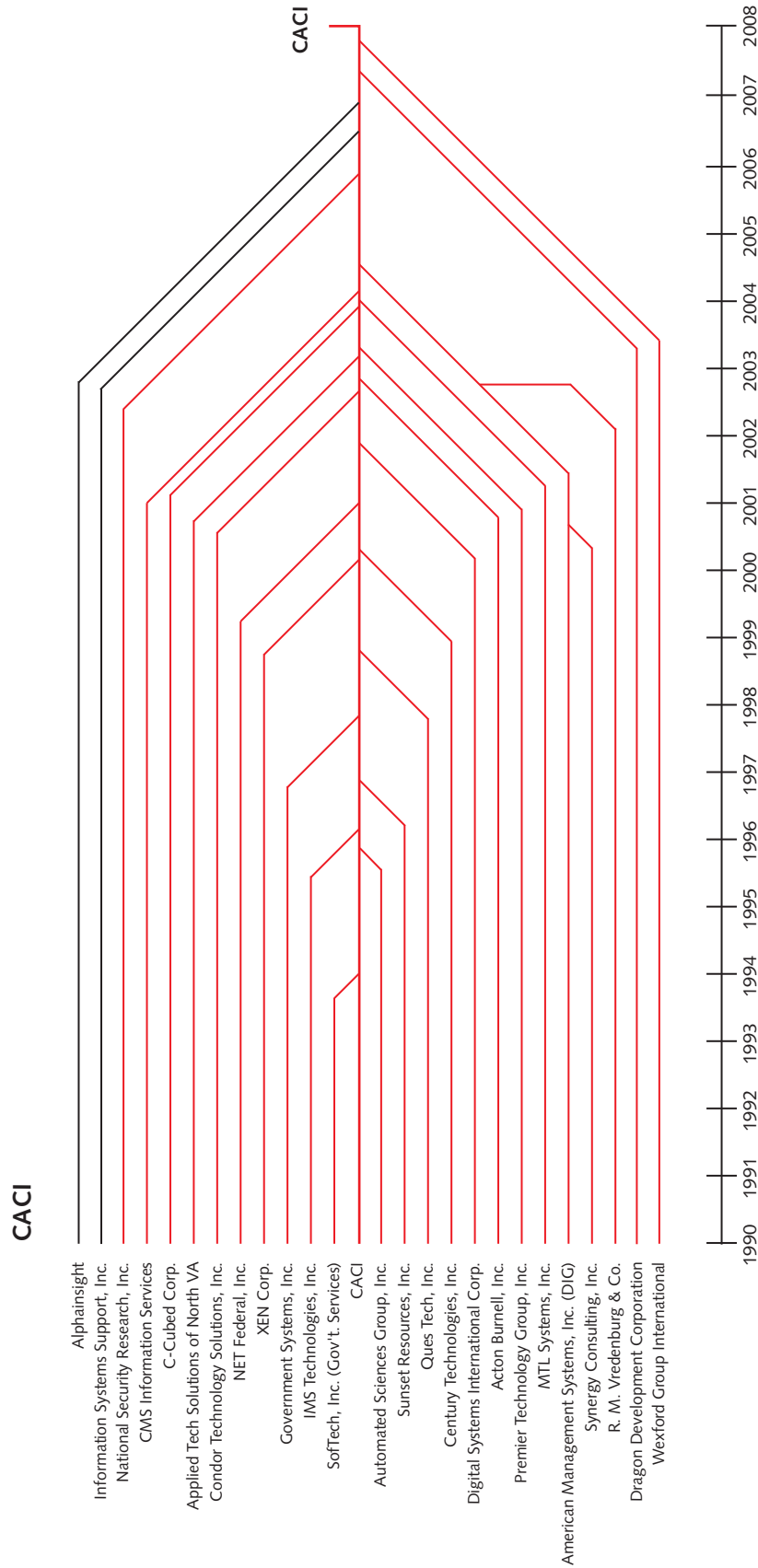
Sources: DM&A, *Washington Technology*, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.

Key: Federal services companies: — (red); defense hardware companies: — (green); commercial IT: — (black)



Sources: DM&A, *Washington Technology*, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.

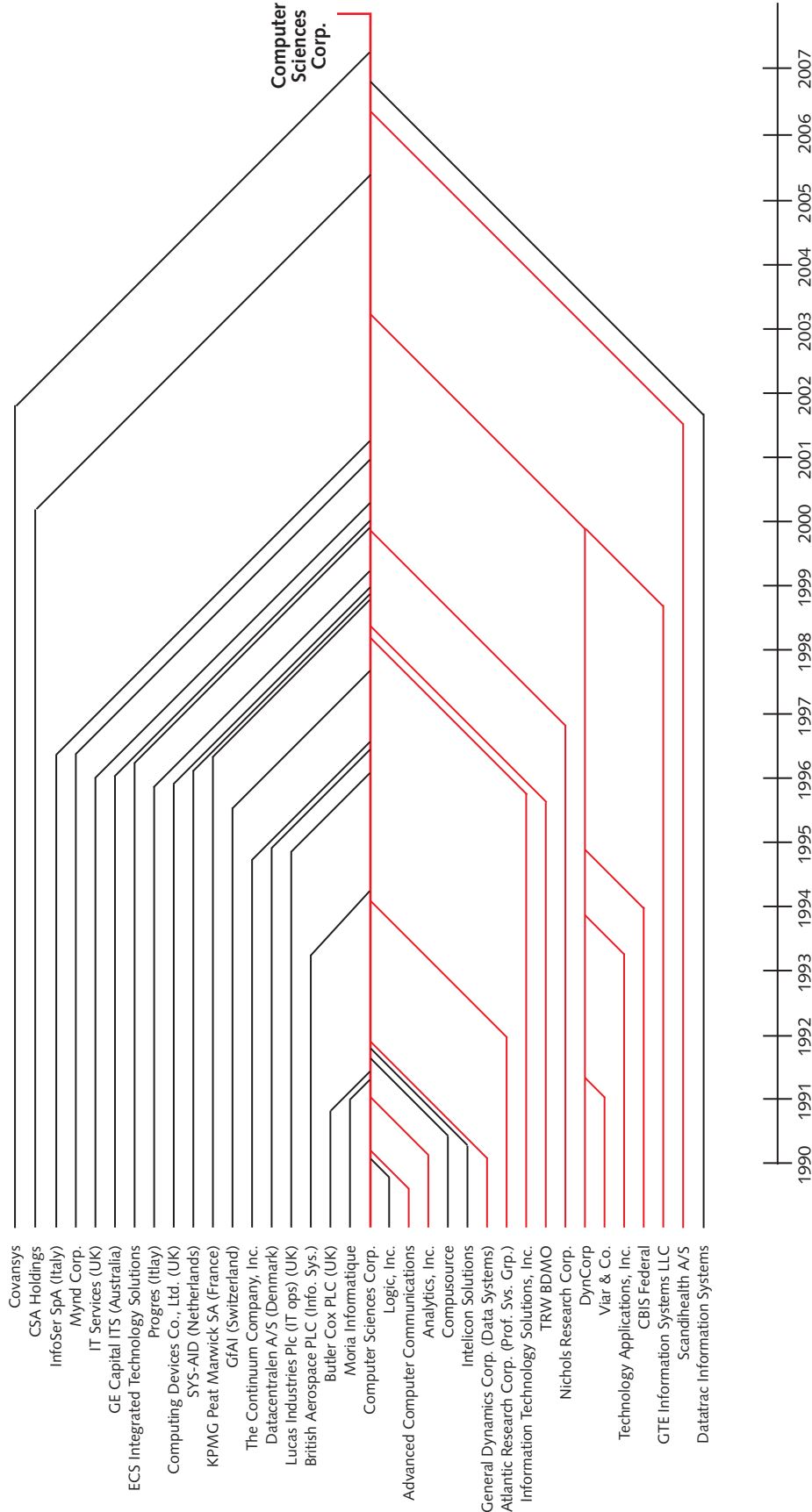
Key: Federal services companies: — ; defense hardware companies: — ; commercial IT: —



Sources: DM&A, Washington Technology, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.

Key: Federal services companies: — ; defense hardware companies: — ; commercial IT: —

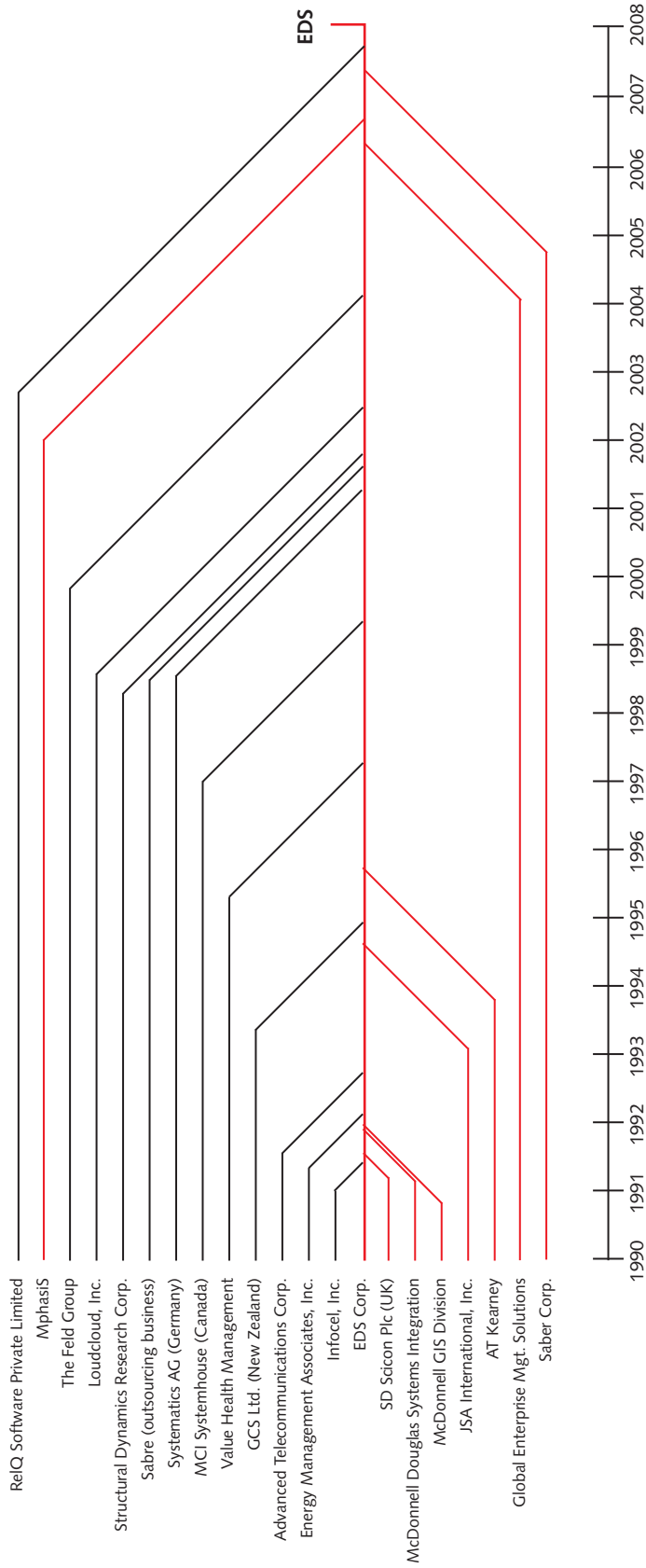
**Computer Sciences Corp.**



Sources: DM&A, *Washington Technology*, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.

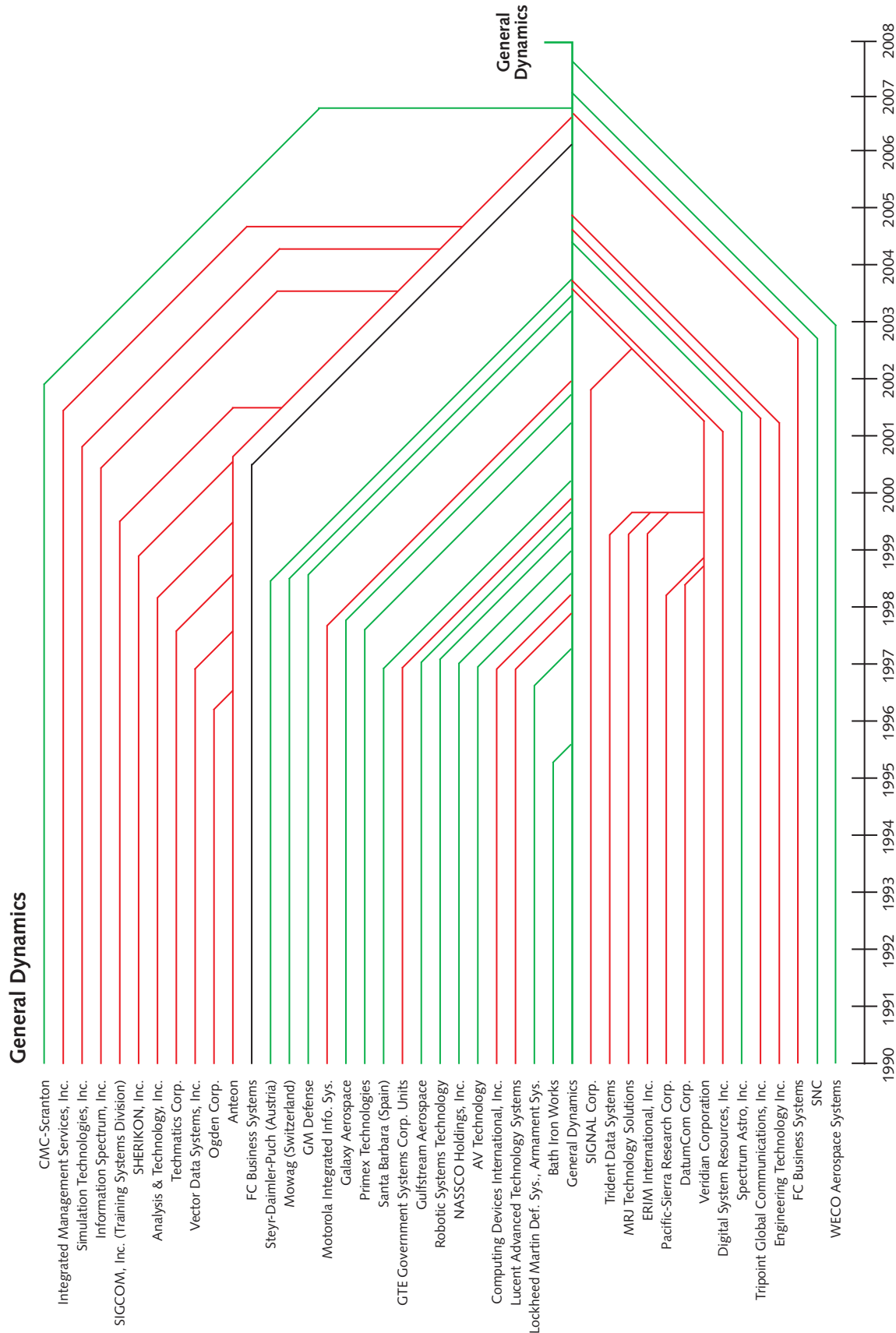
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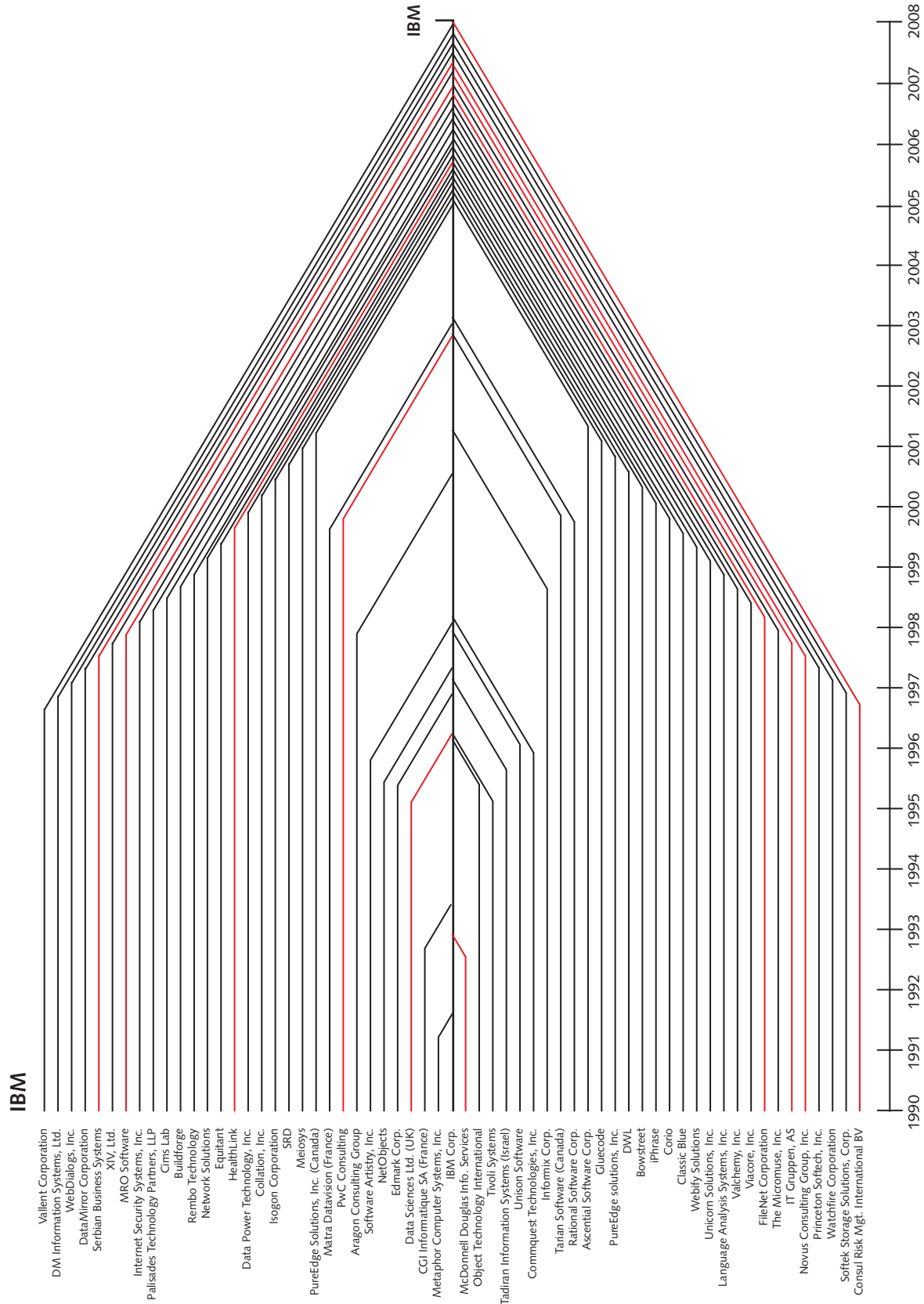


Sources: DM&A, *Washington Technology*, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.

Key: Federal services companies: — ; defense hardware companies: — ; commercial IT: —

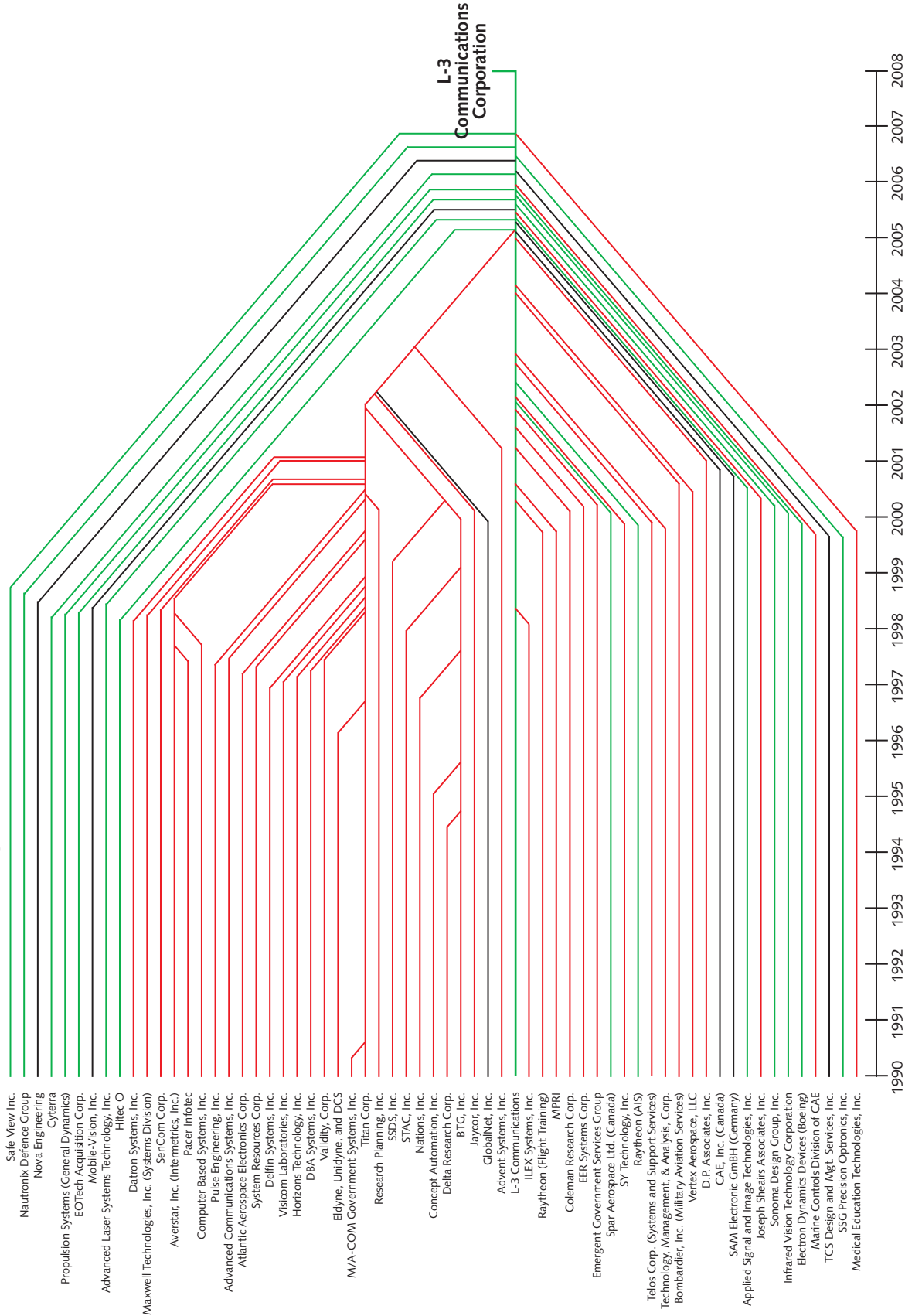


Sources: DM&A, *Washington Technology*, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.



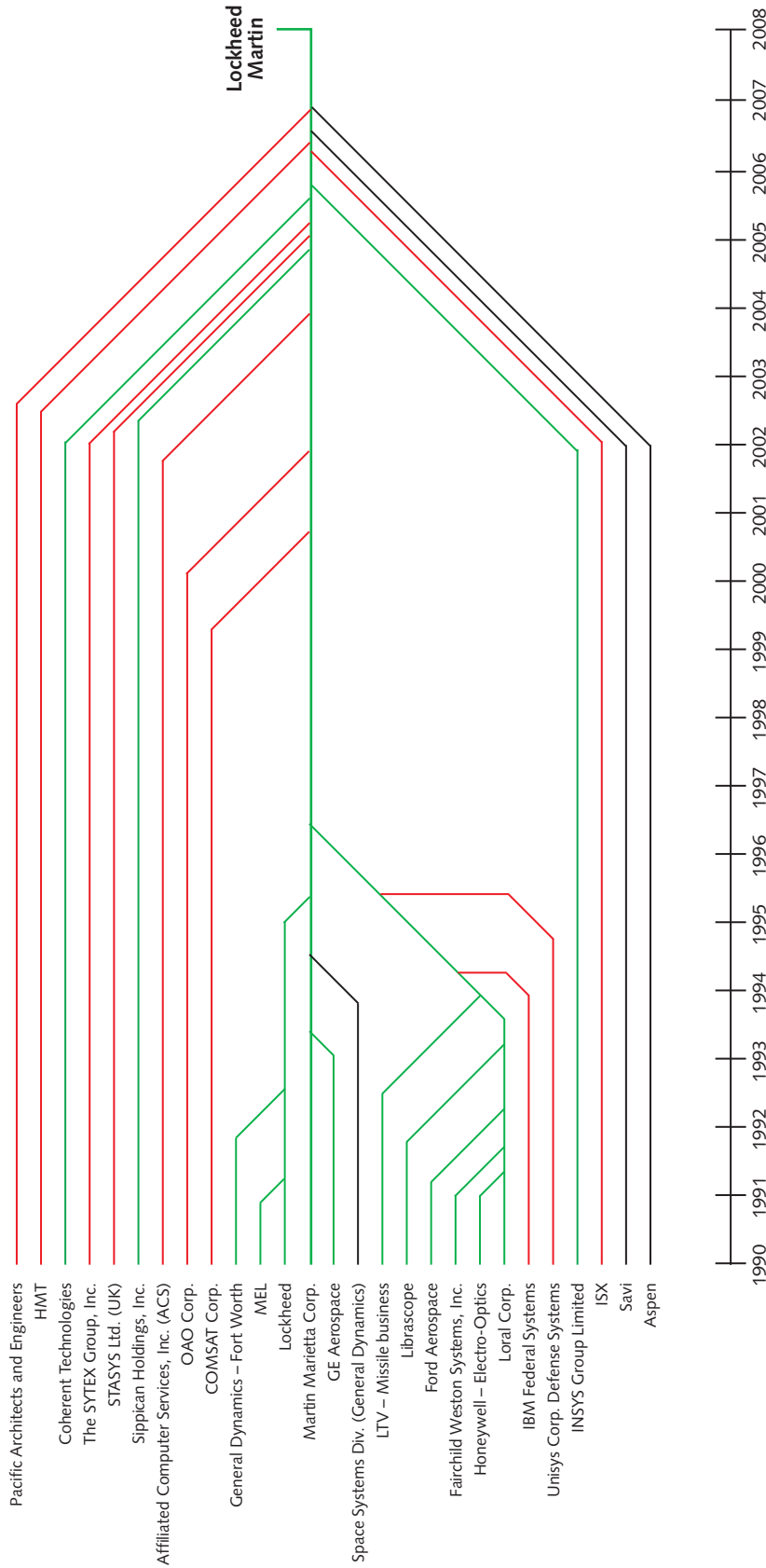
Sources: DM&A, Washington Technology, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.  
 Key: Federal services companies: —; defense hardware companies: —; commercial IT: —

L-3 Communications Corporation



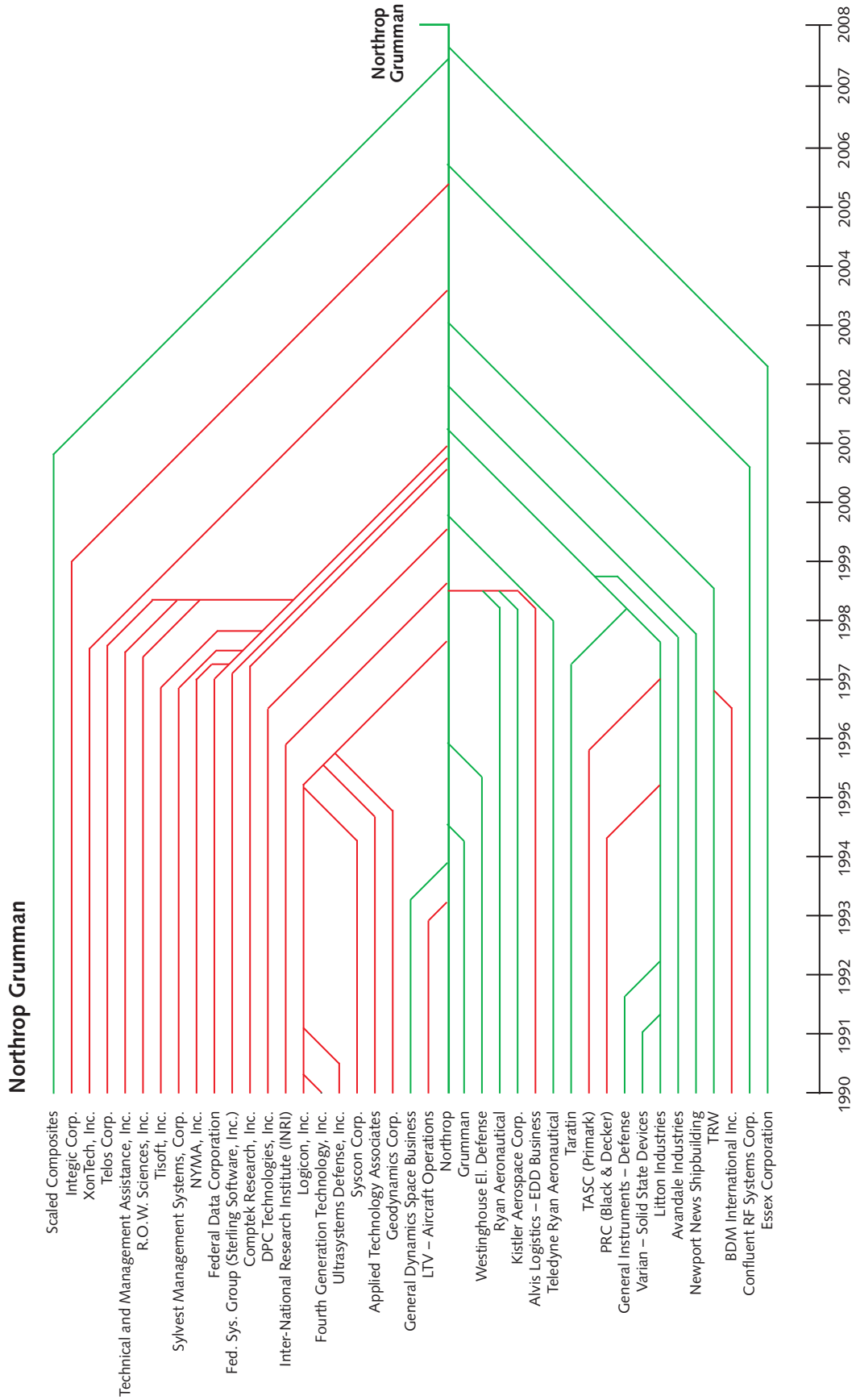
Sources: DM&A, Washington Technology, various company reports, and analysis by CSIS Defense Industrial Initiatives Group.  
 Key: Federal services companies: \_\_\_\_\_; defense hardware companies: \_\_\_\_\_; commercial IT: \_\_\_\_\_

**Lockheed Martin**



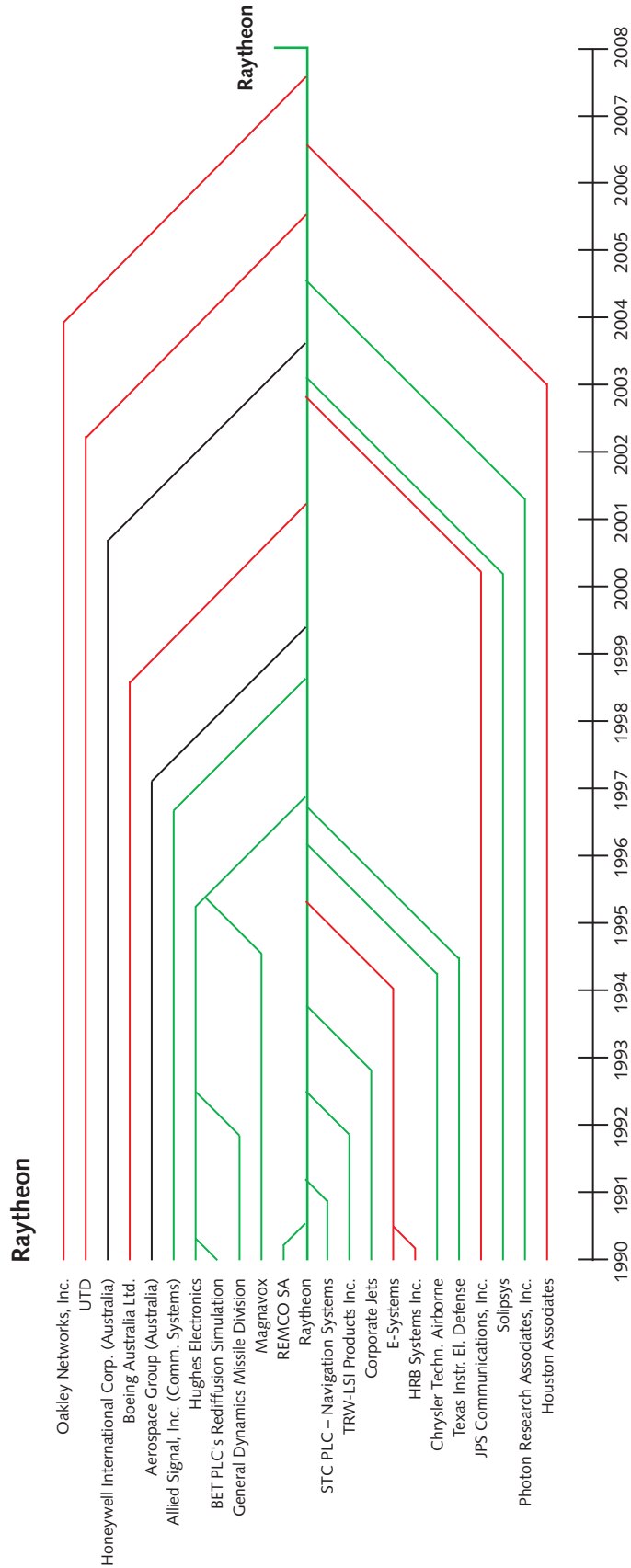
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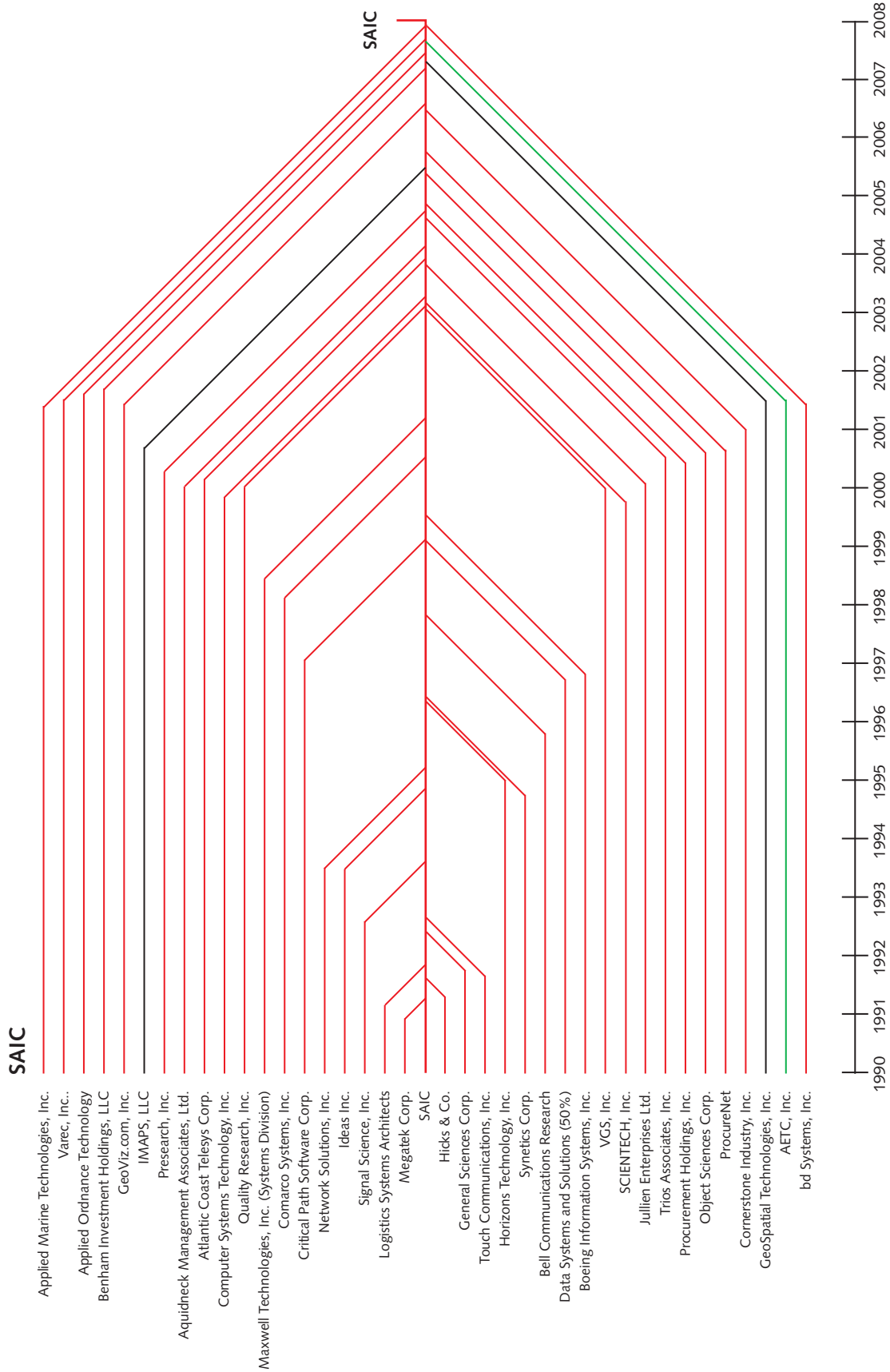
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Key: Federal services companies: — ; defense hardware companies: — ; commercial IT: —



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# About DIIG

The Defense-Industrial Initiatives Group (DIIG) at CSIS focuses on issues related to the health and management of the global defense technology-industrial base. The aim of this group is to generate leading, fact-based analyses as well as practical policy recommendations on the range of key issues facing companies and political leaders tasked with managing this complex area of national security.

The group's work is directed by David J. Berteau and is organized around four major thrusts: top-down analyses concerning the overall health of the defense industry, bottom-up research on specific industry sectors, initiatives on particular policy topics of importance to the defense-industrial community, and studies on the impact of globalization (which encompasses the transatlantic relationship, export controls, technology transfer, and offsets).

DIIG works closely with the wide range of experts at CSIS, including specialists focused on security issues, technology policy, and particular geographic regions.