

The Homeland Security Industry and its Impact on the Arlington, Virginia, Economy

Research Report for **Arlington Economic Development**

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Executive Summary

An analysis of federal procurement for homeland security products and services from 2001 to 2004 reveals that Arlington County is an important location for private firms contracting with federal government agencies. The County captured a significant share of the homeland security market and should focus its economic development efforts on attracting, retaining, and expanding firms that contract with the federal government for homeland security products and services. In particular, this report reveals that:

1. Federal procurement for homeland security products and services has increased substantially since 2001¹.

- Federal procurement for homeland security products and services increased from \$2.4 billion in 2001 to more than \$5.3 billion in 2004. In 2004, 15 % of DHS' budget was spent on private companies for the procurement of products and services.
- The federal government spent about \$18 billion on homeland security products and services from 2001 to 2004.
- Between 2001 and 2002 federal procurement doubled. Subsequently, spending has slowed down since the initial investments and the immediate response to terrorist threats. However, estimates show that federal budget outlays will remain at the same level until 2010 (\$30 billion a year).
- Homeland security's share of total federal procurement only accounts for about 1.6 % of total procurement. By comparison, the Department of Defense procured more than \$229 billion of contracts in 2004 and accounted for 73 % of total government procurement.

2. The Washington D.C. region is the main center for the homeland security industry in the United States.

- Federal procurement in Washington, D.C. for homeland security products and services almost tripled in the last four years, and the MSA captured 51.9 % of the nation's total procurement in homeland security in 2004.
- Other metropolitan regions captured significantly less and none exceeded 7.6 % of the nation's homeland security procurement.
- The 25 largest metropolitan areas received 87.3 % of homeland security procurement.

¹ All annual references relate to the federal fiscal year which runs from October 1 of the year referenced to September 30th of the following year.

3. Arlington County plays an important role in the homeland security industry.

- During 2004, Arlington County received more than \$818 million (exceeding the metropolitan areas of Dallas and San Francisco combined) or 29.5 % of the total procurement in the Washington, D.C. region.
- Arlington County's share of Washington, D.C.'s homeland security procurement increased from 10 % in 2001 to 29 % in 2004.
- Arlington County procurement in homeland security increased over 100 % per year since 2001.
- Arlington County is the center for high tech product procurement in homeland security. The county captures almost 17 % of the U.S. high tech procurement in homeland security. The county's share of high tech procurement in the D.C. area is twice as high (35 %). This contrasts with Fairfax County's share of 18 %.
- Arlington County-based firms provide more high tech products and services than firms located in the rest of the Washington D.C. region. Fairfax County and the remainder of Northern Virginia (excluding Arlington County) account for only 23.7 % of the high tech products and services procured by DHS.
- The homeland security industry in Arlington County specializes in aerospace, audio and visual equipment, communications equipment, computer systems design, industrial machinery, technical and managerial consulting services, navigational and measurement instruments, and R&D services.
- Integrated Coast Guard Systems, located in Rosslyn, received one of the largest contracts in homeland security: more than \$ 550 million for modernizing the Coast Guard's fleet. The project is commonly referred to as the Integrated Deepwater System.
- The top 10 Arlington County-based contractors are large systems integrators such as Integrated Coast Guard Systems, Lockheed Martin, Deloitte & Touche, Science Applications International, ITS Corporation, BearingPoint, USIS, Unisys, Systems Integration, and SETA Corporation.
- The majority of the top 10 contractors in homeland security are new entrants, meaning that they have not performed work in Arlington County before 2004.
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4. Arlington County should focus its economic development efforts on the homeland security industry.

- Arlington County has evolved as one of the top locations for homeland security contract work. Economic developers in the County should focus their attention on retaining, expanding, and attracting firms that contract for homeland security products and services.

The County's assets include the presence of a critical mass of government contractors, research and policy institutions such as ANSER and the Homeland Security Institute, a talented labor pool, and federal agencies charged with conducting research and development in homeland security.

5. More qualitative research needs to be done to characterize Arlington County's homeland security industry

- The data we analyzed can only provide us with quantitative information about the nature and extent of government contracting in homeland security. A more detailed qualitative analysis needs to be undertaken to find out what challenges and opportunities the sector provides for Arlington County or Washington D.C. based firms.

1. Introduction

This report presents the findings of a research effort that assessed the impact of federal contracting in homeland security on the Arlington County economy. In particular, we examined federal contracting patterns in terms of what kind of private sector firms are providing products and services to the Department of Homeland Security and its various agencies. We present and analysis of federal contracting data for 2001 to 2004.

The research for this report is the result of the second phase of a broader effort on behalf of Arlington Economic Development (AED) and Virginia Tech's Department of Urban Affairs and Planning to better understand the County's knowledge economy. The first phase examined the County's high technology economy and its potential to grow "over the horizon" technology sectors. During the first phase, a detailed examination of secondary data on high technology employment and focus groups with industry experts was conducted. From this, it became apparent that Arlington County is strategically positioned to take advantage of the growing homeland security sector. Arlington Economic Development staff and Virginia Tech researchers then decided to focus on the homeland security sector during the second phase of the research project.²

1.1 Purpose of Study

The purpose of this study is to provide Arlington Economic Development with a detailed examination of federal contracting activity in homeland security. Our firm-level data will enable the County's economic development planners to strategically target firms that operate in this market. We identified two types of firms: The top contractors in Arlington County and in other jurisdictions of the Washington D.C. metro area, and the firms whose contracting activity in the Washington D.C. metro region is growing or declining. The latter analysis will be important for the County's business recruitment, retention and expansion efforts.

1.2 Report Organization

This report is divided into nine major sections. The first section provides information about the methodology used to analyze federal contracting in homeland security. This is an important section since it outlines the ways in which we obtained and analyzed the data. The second section provides background information on homeland security. Here we outline the major political decision that led to the formation of the Department of Homeland Security (DHS). We also focus on the Department's investment priorities. The third section presents an overview of homeland security procurement trends. The fourth and fifth section analyze in great detail who the major contractors in Arlington County are and which firms are expanding or drawing down their contracting activities. At the end of the report, we provide the reader with ideas about implications for economic development planning and future research.

² Information about AED and the reports for the first phase are available at <http://www.arlingtonvirginiausa.com/>.

2. Methodology

Many studies have utilized data on federal procurement to analyze the geographic and economic impact of federal spending activity (Fuller, 2003, 2004; Warf, 1993). In addition to these studies, the U.S. Census produces the Consolidated Federal Funds Report, which provides annual information on federal government expenditures and obligations by state, county, and sub-county area (Census, 2005a). Thus, utilizing procurement data to analyze the economic impact of federal spending activity is not new.

Federal government agencies and departments generally contract for products and services with the private sector. These activities are considered federal procurement. Traditionally, the Federal Procurement Data Center³ provided information on government contracting activity. Beginning October 2004, a Reston-based private company (Global Computer Enterprises⁴) began to operate the Federal Procurement Data System – Next Generation (FPDS-NG). FPDS-NG provides data on federal procurement activity and we used this system for the analysis of homeland security procurement in this report. We utilized FPDS-NG for our data analysis of federal procurement in homeland security and will describe in the following how we received and analyzed the data.

2.1 Data

The data used for this analysis was gathered from the Federal Procurement Data System Next Generation website (<https://fpds.gov>) during March 2005. Contracting data for all federal agencies is stored in a free but password-protected area of the website. The FPDS system is a significant upgrade from previous federal data systems because it allows agency users to revise contract information that is either incorrect or revised at a future date. One limitation, therefore, is that data may not be exactly replicable at a future date.

2.2 Analysis

For the purpose of this report, we utilized several criteria to gather the homeland security procurement data. First, data was gathered for each fiscal year from 2001 to 2004. A fiscal year in the federal government begins on October 1st and ends on September 30th. Fiscal year data was identified in the database by the “Date signed” of the contract, per instructions from FPDS-NG consultants. The first year, 2001, constitutes the “pre-9/11” year. That year reflects federal procurement activity prior to the increase in attention to domestic protection and the formation of the Department of Homeland Security.

Second, data was gathered by both vendor and place of performance. The vendor allowed for an analysis of different companies and their role in Homeland Security contracting across time. Information on place of performance formed the basis for analyzing data at the level of Metropolitan Statistical Areas (MSA). All urban regions analyzed were defined by the MSA according their geographic components.⁵

³ For more information see http://www.fpdc.gov/fpdc/fpdc_home.htm

⁴ GCE’s website is <http://www.gce2000.com/>

⁵ The U.S. Census provides definitions for metropolitan statistical areas and lists each MSA’s components on the following website: <http://www.census.gov/population/estimates/metro-city/List1.txt>.

Finally, data was gathered for the agencies that had independent contracting authority and comprised the Department of Homeland Security (“DHS”) after its formation. Independent contracting authority is important, for without that it is impossible to tell if a department within an agency was the source for a contract or not. For instance, the Office of Domestic Preparedness was established by the Department of Justice after September 11th, 2001. The Office eventually became part of the DHS, but it did not have independent contracting authority and consequently any contracts that it issued were issued by the Department of Justice. Its contracting data is not possible to disaggregate from the remainder of the Department of Justice using the FPDS database.

The nine agencies that had independent contracting authority prior to the formation of the DHS and that were incorporated into the DHS are:

- Animal and Plant Health Inspection Service
- Federal Emergency Management Agency
- Federal Law Enforcement Training Center
- Immigration and Naturalization Service
- Transportation Security Administration
- U.S. Coast Guard
- U.S. Customs Service
- U.S. Export Administration
- U.S. Secret Service

Additionally, DHS itself has independent contracting authority and their procurement was also included in our analysis. However, DHS did not begin contracting until 2004. We did not include agencies such as the Central Intelligence Agency (CIA) or the National Security Administration (NSA) because they are exempt from reporting their contracts to FDPS. The selection of these nine agencies is in line with prior studies on the impact of federal spending in homeland security. In particular, Dr. Stephen Fuller of George Mason University’s Center for Regional Analysis, has utilized the same set of agencies to determine federal spending in homeland security (Fuller, 2004).

The data was gathered from the FPDS Next Generation website. Within the registered user area of the website is an option to create “ad-hoc” reports. These reports are created by the user. We identified each of the above agencies by their “Agency ID” number and then ran a query for all information from each agency for the years 2001 to 2004. The information was grouped on the following categories:

- Agency
- Place of Performance Code
- Place of Performance Location (City)
- State and Country
- NAICS Number and NAICS Description
- Vendor Name and DUNS number
- Parent DUNS number
- Vendor country

Total actions (contracts), total project dollars, and – where available – company revenue and employees were aggregated at these levels. A total of just over 25,000 records were collected for four years of Homeland Security contracting.

The most important steps after this were linking location codes to the Census MSA information and cleaning up the vendor names. Location codes were linked by state and code, as these are the unique identifiers for each city. Far more difficult was the clean-up of vendor names. Many vendor names were misspelled, spelled differently (FH Sons, Inc., F H Sons, F.H. Sons Incorporated and F.H. Sons, Inc. while all being the same company would appear in the data as four separate companies), were a direct subsidiary of another firm or were merged in with other firms and no longer in existence. More than 11,000 “companies” were associated with the 25,000 contracts, but after cleaning the names only 7,700 unique companies were identified.

Finally, only MSAs within the domestic United States were analyzed. All foreign contracts or contracts to United States territories were excluded from analysis. While this reduced the total records analyzed to just over 24,000 total, its impact on procurement was minimal. The vast majority of Homeland Security expenditures (99 % in 2004) take place within the domestic United States.

2.3 Geographic definitions

The unit of analysis is primarily Arlington County but included the contiguously urbanized Washington D.C. an Northern Virginia metropolitan area as needed. To provide points of reference, data was collected for the Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area. To simplify the analysis, we divided the Washington D.C. MSA into five components: Arlington County, Fairfax County, District of Columbia, Northern Virginia (which also included Jefferson County in WV), and suburban Maryland. The following table outlines which jurisdictions belong to each of these components:

Table 1: Washington D.C. MSA and its components

Washington D.C. sub-region	County/City component
Arlington County	Arlington County
Fairfax County	Fairfax County, VA Fairfax city, VA
District of Columbia	District of Columbia, DC
Northern Virginia	Clarke County, VA Fauquier County, VA Loudoun County, VA Prince William County, VA Spotsylvania County, VA Stafford County, VA Warren County, VA Alexandria city, VA Falls Church city, VA Fredericksburg city, VA Manassas city, VA Manassas Park city, VA Jefferson County, WV
Suburban Maryland	Calvert County, MD Charles County, MD Prince George's County, MD

Source: U.S. Census (2005b)

2.4 Limitations

It should be noted that exact replication of this data analysis is difficult. The FPDS Next Generation online system has an open interface whereby contractors or government procurement agents can, at any time, go into the contracting record and change information related to the contract. While this should, in the long run, serve to make the database more accurate than a one-time entry, it also means that the data may be subject to review and change at any time.

Our data was collected between March 1st and 13th, 2005. For an exact replication, the database would have to be retrieved from FPDS-NG that corresponds to those dates; whether this is possible or not is unknown.

Additionally, the data has a number of limitations:

- **Data is not available on subcontracting relationships:** The place of performance, for instance, often refers to the headquarters of the contracting agency. If the contract is sub-contracted to a company in another location, the data will not show that.
- **No information about multiple contractors:** Contracts that involved the cooperation of two companies on a larger project are always assigned to one corporation or the other. Qualitative analysis of the contract in question is required in both of these situations to better ascertain where the contracting dollars will ultimately be procured.
- **2004 data is still being finalized by FPDS-NG:** Although a static snapshot from January 1st, 2005 reveals little change in the total dollars procured between then and March as recorded in the database, a number of records are still being completed by entrants. This is most noticeable in the NAICS information. All NAICS data is available in 2001 and 2002, and only a small fragment of NAICS data is missing in 2003 (well under one percent of the total data). In 2004, however, almost half the records were still missing NAICS information as of March, 2005 (see Appendix 1). This has limited our analysis on NAICS information to 2001, 2002, and 2003.

3. Background on homeland security

3.1 Department of Homeland Security

The terrorist attacks in 2001 set in motion a variety of governmental reforms such as the creation of the Department of Homeland Security (DHS) in 2002. DHS brought together more than 22 new and existing federal agencies and more than 170,000 employees (Kettl, 2004). Leading up to the creation of DHS, several important milestones were passed (see Table 2). Among these milestones were the passage of the Patriot Act, which lay the foundation for improved intelligence gathering, and the creation of the Transportation Security Administration (TSA), an agency charged with improving aviation and transportation security.⁶ The following table outlines key historic events since September 11, 2001.

Table 2: Key events regarding homeland security

Time	Action
September 2001	9/11 terrorist attacks in NYC, D.C., Pennsylvania
October 2001	Patriot Act becomes law; Office of Homeland Security is established
November 2001	Aviation and Transportation Act and creation of Transportation Security Administration
June 2002	President Bush proposes DHS legislation
July 2002	Office of Homeland Security created Strategy for National Homeland Security
November 2002	Homeland Security Act; Creation of Department of Homeland Security (DHS)
January 2003	Department of Homeland Security (DHS) is created and headed by Secretary Tom Ridge President announces creation of Terrorist Threat Integration Center
March 2003	More than 20 agencies were transferred to DHS.
February 2004	DHS releases its strategic plan "Securing our Homeland: The DHS Strategic Plan"
February 2005	Michael Chertoff assumes leadership of DHS as the agency's second secretary

Source: Department of Homeland Security (2005b), Haynes (2004)

Many observers claim that the reorganization around homeland security is larger, more complex, and more problematic than the creation of the Department of Defense in 1947 (Haynes, 2004; Kettl, 2004). DHS is currently struggling with the integration and coordination of many different agencies that have traditionally worked towards different missions. Additionally, most of these agencies have had strong identities of their own (i.e. Coast Guard, FEMA). Therefore, it is not surprising that DHS received bad grades after its first year: Working on a report for the Century Foundation, Kettle et al. (2004) gave DHS a meager C+ for its first year performance. The authors primarily criticized the lack of coordination among the many agencies and departments that came together as well as the lack of coordination with state and local agencies. In particular, Kettle et al (2004) found major shortcomings in aviation and cargo security, reducing the backlog of immigration applications, the allocation of financial support for homeland security to state and local governments, and they also claim that DHS has failed to form a clear vision and strategy. DHS received positive grades primarily in the areas of tracking foreign students, airport screening, enlarging the fleet of air marshals, and establishing an organizational structure for information gathering about critical infrastructure (Kettl, 2004).

⁶ TSA is currently experiencing major organizational restructuring. On April 7, President Bush asked TSA's director David M. Stone to step down. The 2006 budget proposal includes significantly lower levels of funding indicating a smaller role for TSA (Goo Kehaulani, 2005).

Despite the various shortcomings, DHS has influenced the way the United States is approaching homeland security. From a public administration perspective, the formation of a department that combines a multitude of tasks is a formidable yet daunting task (see Table 3).

Table 3: Major DHS components

DHS component	Task & Offices	Location
Office of Secretary	Coordinates federal, state, local and private activity Houses multiple offices <ul style="list-style-type: none"> - Office of the Chief Privacy Officer - Office of Civil Rights and Civil Liberties - Office of Counter Narcotics - Office of General Counsel - Office of the Inspector General - Office of Legislative Affairs - Office of National Capitol Region Coordination - Office of the Private Sector - Office of Public Affairs - Office of State and Local Government Coordination and Preparedness 	
Border and Transportation Security (BTS)	<ul style="list-style-type: none"> - Transportation Security Administration (TSA) - Customs and Border Protection - Immigration and Customs Enforcement 	Arlington, VA District of Columbia Fairfax
Emergency Preparedness and Response	<ul style="list-style-type: none"> - Federal Emergency Management Agency (FEMA) 	District of Columbia
Information Analysis and Infrastructure Protection	<ul style="list-style-type: none"> - Homeland Security Operations Center (HSOC) - Information Analysis - Infrastructure Protection 	
Science and Technology	<ul style="list-style-type: none"> - Office of National Laboratories - Homeland Security Laboratories - Homeland Security Advanced Research Projects Agency (HSARPA) 	
Office of Management	Responsible for procurement, budget, appropriations, expenditures, accounting, etc.	
U.S. Citizenship and Immigration Services	<ul style="list-style-type: none"> - U.S. Citizenship and Immigration Services - Office of Citizenship - National Customer Service Center 	District of Columbia
U.S. Coast Guard	Protects nation's ports and waterways	District of Columbia Arlington, VA
U.S. Secret Service	Protects the President, nation's leaders, as well as country's financial and critical infrastructure.	District of Columbia

Source: Department of Homeland Security (2005b)

3.2 Homeland security investments

Since the tragic events of September 11, 2001, homeland security has become a priority at all levels of government (national, state, and local). At the center are efforts to protect the United States from future terrorist attacks through improved aviation security and border control, critical infrastructure protection, biodefense, and emergency preparedness among others. Homeland security spending is primarily driven by the federal government which acts as the major investor in homeland security products and services. Since 2001, federal outlays in homeland security have more than doubled from \$15 billion in 2001 to \$31 billion in 2003 and \$26 billion in 2004

(see Figure 1). Federal estimates show that spending on homeland security will remain above \$30 billion a year until 2010 (Office of Management and Budget, 2005).

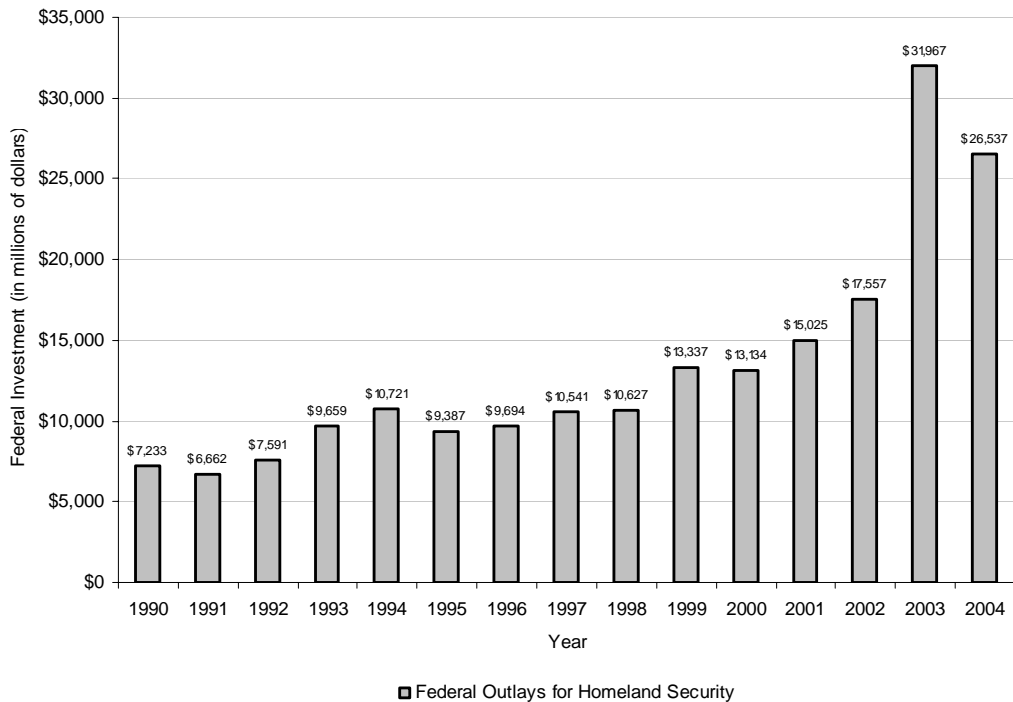


Figure 1: Federal government outlays for homeland security

Source: Office of Management and Budget (2005)

These federal investments in homeland security have spawned new economic activity over the last four years. Industry experts estimate that \$9.5 billion of federal spending of the FY 2006 budget is actionable for the private sector (Beckner, Shaheen, & Cuk, 2005).⁷ Thus, homeland security constitutes a major industry comprised of traditional government contractors but also new players such as smaller innovative technology firms (Gould & Beckner, 2003).

Local and state government agencies have discovered the homeland security sector as a target for their economic development efforts. The State of Illinois for example is working to attract homeland security companies by establishing a special division in the Department of Commerce and Economic Opportunity (Blagojevich, 2005). At the local level, cities are trying to leverage benefits from the economic expansion resulting from increased homeland security spending: The first incubator that focuses on the homeland security sector opened in 2003 in Annapolis and is called the Chesapeake Innovation Center (CIC).⁸ CIC was supported by the Anne Arundel Economic Development Corporation and houses 14 companies whose focus ranges from software development to biodefense (Krizner, 2005). Another example is the Oklahoma

⁷ Civitas estimates that \$8.992 billion were spent on the private sector in 2004 (Beckner et al., 2005) while in 2003 (the first year an estimate was available) spending on the private sector was \$6.73 billion (Civitas Group LLC, 2005). Civitas derived these numbers through the analysis of line items in the federal budget request for the Department of Homeland Security. The weight each request received was weighted depending on the percentage of the agency's mission to serve a homeland security purpose.

⁸ For more information on the CIC check: <http://www.cic-tech.org/index.html>.

Technology and Research Park.⁹ Located in Stillwater, the park leverages Oklahoma State University’s research expertise in homeland security (Krizner, 2005). Parallel to these state and local efforts, universities across the country are beginning to apply their research capacity to homeland security. In the Washington D.C. region, universities are taking advantage of their close proximity to the federal government. Johns Hopkins University in Baltimore, Maryland, for example, formed an Information Security Institute. George Mason University opened its National Center for Biodefense at its Prince William campus in 2002. The center focuses mainly on research in the realm of public health and biodefense. Finally, George Washington Universities’ Homeland Security Policy Institute is a portal to its research expertise.¹⁰

3.3 DHS funding priorities and investment areas

Federal investments in homeland security have almost doubled since 2001. President Bush’s budget request for DHS amounts to a total of \$41.1 billion for 2006, which represents an increase of seven percent over the enacted 2005 budget of \$38.5 billion. We calculated how much of the total budget of the Department was spent on private sector products and services and found that in 2004 about 15 % of the total DHS budget was used to procure from the private sector (see Table 4). The agencies that spent more than 10 percent of their budget on procurement with the private sector were the Federal Law Enforcement Training Center (59 %) followed by the Transportation Security Administration (36 %), the U.S. Coast Guard (23 %), the Federal Emergency Management Agency (15 %), the Bureau of Immigration and Custom Enforcement (11 %), and the Bureau of Customs and Border Protection (10 %).

Table 4: Procurement as Share of Total DHS Budget for Select Agencies, 2004

DHS Agencies	Total Procurement	FY 2004 Enacted Budget	Procurement (% of Budget)
U.S. Coast Guard	\$1,584,628,569	\$ 6,994,222,000	23%
Transportation Security Administration	\$1,637,743,664	\$ 4,578,043,000	36%
Bureau of Immigration and Customs Enforcement	\$406,016,662	\$ 3,669,615,000	11%
Bureau of Customs and Border Protection	\$594,930,503	\$ 5,997,287,000	10%
Animal and Plant Health Inspection Services	\$142,907,166	n/a	n/a
Federal Emergency Management Agency	\$685,504,928	\$ 4,671,782,000	15%
Office of the Secretary (DHS)	\$131,380,937	n/a	n/a
Federal Law Enforcement Training Center	\$112,478,721	\$ 191,643,000	59%
U.S. Secret Service	\$50,253,199	\$ 1,334,128,000	4%
Total (for select agencies)	\$5,345,844,348	\$ 27,436,720,000	19%
Total (DHS)		\$ 35,604,092,000	15%

Source: Department of Homeland Security (2005a, p. 15), FDPS-NG Procurement Data (2005a)

Note: The budget for the Animal and Plant Health Inspection Services and the Office of the Secretary could not be identified.

⁹ Further information on the Oklahoma research park is available at: <http://www.oktechpark.com/>.

¹⁰ Johns Hopkins University provides more information about the institute at <http://www.jhuisi.jhu.edu/>. The National Center for Biodefense website is <http://www.gmu.edu/centers/biodefense/>. Information about the George Washington University homeland security initiative is available at <http://www.homelandsecurity.gwu.edu/home.htm>.

The majority of private procurement for homeland security is allocated to a few key areas. The *National Strategy for Homeland Security* (Office of Homeland Security, 2002) provides the foundation for DHS investment priorities. The strategy's six critical mission areas are:

1. Intelligence and warning
2. Border and transportation security
3. Domestic counterterrorism
4. Protecting critical infrastructure and key assets
5. Defending against catastrophic threats
6. Emergency preparedness and response

Most opportunities for private sector procurement and federal investment in private sector products and services are within the areas of border and transportation security, domestic counterterrorism, and in the defense against catastrophic threats such as biological, chemical or nuclear threats. Emergency preparedness and response is primarily the responsibility of state and local government (who may in turn contract with the private sector).

In their report about the FY 2006 DHS budget request, the Civitas Group (Beckner et al., 2005) highlighted seven areas for private investment opportunities. These are:

- Biological sensors and surveillance technology to fight the threat of bioterrorism.
- Screening and identification technology to manage border security.
- Radiation and detection equipment and technology (sensor, monitors, etc.)
- Anti-missile technology for commercial aviation (so-called counter MANPADS systems)
- Explosives detection and baggage screening systems
- Remote video surveillance equipment for border security (America's Shield initiative)
- Operation center and secure networks for internal DHS coordination

A value chain analysis developed by the O'Gara Company (Gould & Beckner, 2003) segments the private sector homeland security market into two main areas. The first area contains firms whose primary function and expertise is associated with the integration of homeland security systems (the so-called systems integrators). Firms associated with this field already have an established government presence and have extensive experience in government contracting often resulting from defense-related contracts. The second area contains firms who provide functional solutions to protect, detect, and respond to homeland security threats. The following figure illustrates the homeland security value chain. Firms in both areas contract with federal, state, and local government for products, technology, and services (see Figure 2).

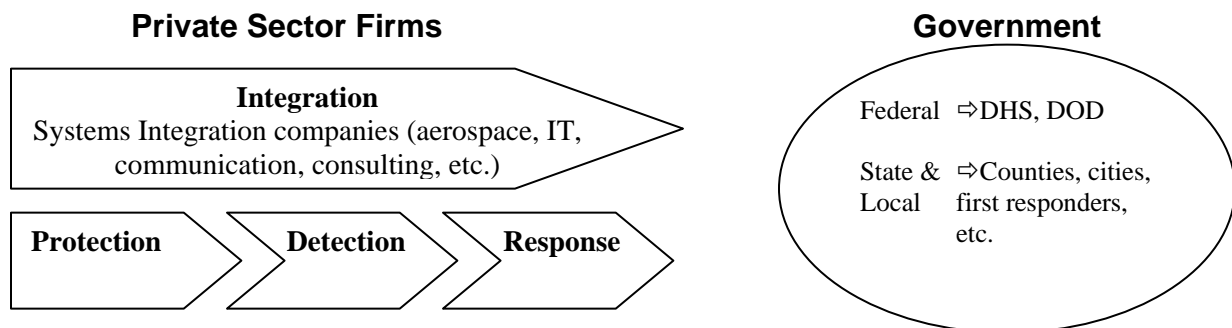


Figure 2: Value chain of the homeland security industry

Source: Adapted from Gould & Beckner (2003)

4. Homeland security procurement trends

4.1 National trends

As previously mentioned, the Department of Homeland Security spends a significant part of its budget on procuring products and services from the private sector. During 2004, federal procurement accounted for 15 % of DHS' total budget. After an intense period of heavy investments during 2002 and 2003, it appears that procurement for homeland security products and services has slowed down: During 2004, there was a slight decrease (-2.2 %) in procurement activity compared to the year before (see Table 5).

Table 5: Total federal procurement compared to homeland security, 2001 to 2004

Year	Total Actions	Total Procurement: Dollars	Homeland Security Procurement	Homeland Security's Portion of Total Federal Procurement	Year to Year Change in procurement for homeland security
2001	624,253	\$ 221,324,866,589	\$ 2,447,014,703	1.1 %	
2002	806,650	\$ 260,029,932,077	\$ 4,758,836,507	1.8 %	94.5 %
2003	1,136,445	\$ 309,090,683,308	\$ 5,463,435,326	1.8 %	14.8 %
2004	1,706,874	\$ 314,973,729,928	\$ 5,345,844,348	1.7 %	-2.2 %

Source: FDPS-NG Procurement Data (2005a)

Note: Total homeland security procurement includes international contracts.

Overall federal government agencies spent about \$15.6 billion on homeland security products and services between 2002 and 2004. In terms of absolute federal spending on the private sector, procurement almost doubled from 2001 to 2002. This does not come as a surprise since federal security activities increased after September 11, 2001. In particular investments occurred in aviation security. For example, the Transportation Security Administration had to fulfill mandates for tighter and safer procedures in baggage screening set forth in the Aviation and Transportation Act. Thus, major investments in equipment (screening technology) and services (TSA personnel at airports, etc.) occurred during FY 2002.

Despite the increase in investment activity, the Department of Homeland Security is not the largest government customer of private sector products. Procurement activities at the Department of Defense, the Department of Energy, the General Services Administration, the Department of Health and Human Services, and the Department of Veterans Affairs are much larger than at DHS. If we consider homeland security's share of total federal procurement, we have to note that it only accounts for about 1.6 % of total procurement. Compared to Department of Defense procurement, which was more than \$229 billion in 2004 and accounted for 73 % of total government procurement (Federal Procurement Data Center, 2005b), homeland security procurement constitutes only a small share of the total federal contracting market.

Procurement spending in homeland security has primarily influenced the Washington D.C. area and even though this sector only accounts for a small share of federal procurement, its geographic concentration on the D.C. region is significant and warrants a more in-depth analysis to which we turn now.

4.2 Washington D.C. metro region trends

Since 2001, the Washington D.C. metropolitan region ranked number one in capturing procurement contracts in homeland security. Homeland security procurement in the D.C. metro region almost tripled in the last four years. In 2004, the region's firms received more than \$2.7 billion in federal contracts for homeland security products and services. Overall since 2001, the Washington D.C. region captured more than half (\$9.3 billion) of total homeland security procurement (\$17.7 billion). Figure 3 illustrates the growth trends in domestic homeland security procurement relative to the nation's capital share and the share of other metropolitan statistical areas. Procurement in 2004 leveled a trend that parallels recent budget allocations as discussed earlier.

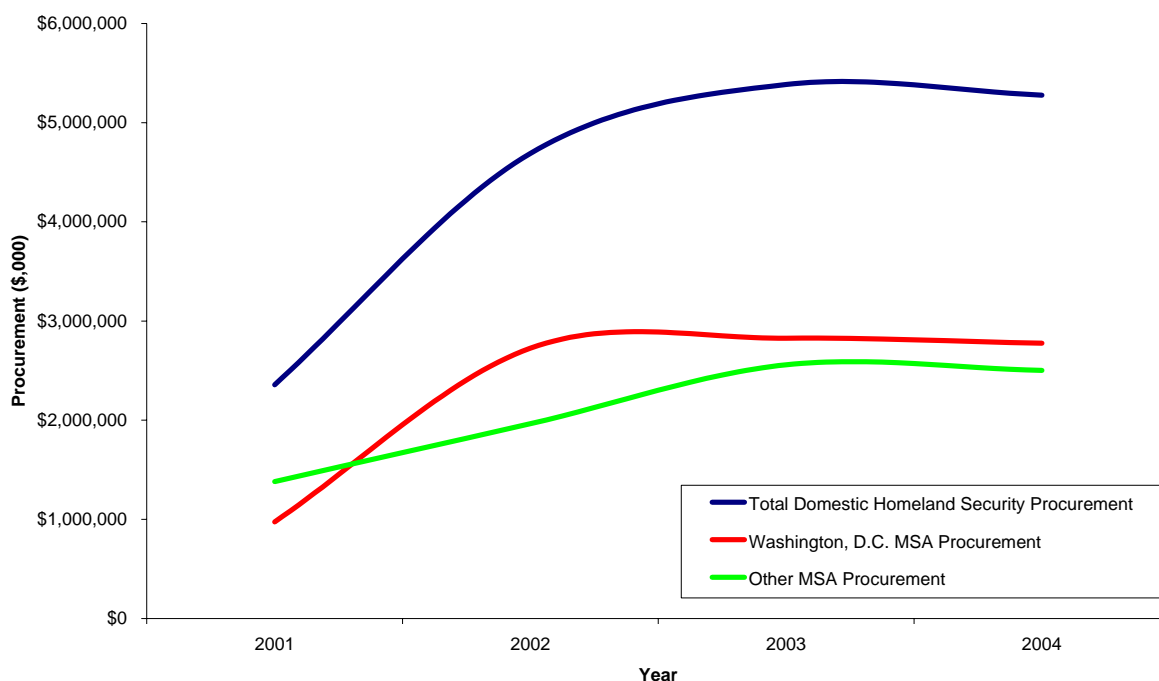


Figure 3: Homeland security procurement trends in the U.S. and in Washington D.C., 2001-2004

Source: FDPS-NG Procurement Data (2005a)

Homeland security procurement seems to follow the spatial distribution patterns of defense procurement. Several academic studies have shown that government contracting concentrates in only a few regions in the United States. According to these studies, the top recipient of government contracts is the Washington D.C. region and its suburban communities such as Arlington and Fairfax counties (Markusen, Hall, Campbell, & Deitrick, 1991; Warf, 1993; Wheeler, 1988). Government outsourcing has benefited the D.C. region in terms of job and firm creation (Feldman, 2001). The spatial patterns we uncover for homeland security procurement are therefore not new trends, but follow well established dynamics.

Among the 50 largest metropolitan statistical areas in the United States, Washington D.C. ranks first in capturing total homeland security procurement in 2004 (see Table 6). Washington-based contractors received more than \$2.7 billion in federal awards to perform services and produce or develop products for homeland security. It is highly likely that these contractors benefit and rely on the proximity to federal government agencies such as the Department of Homeland Security. It is also possible that many of the traditional government contractors have expanded their business into homeland security to serve federal government needs that arose as a result of the terrorist attacks. In fact, Washington D.C. captured more than half of total homeland security procurement (51.9 %). The majority of homeland security contracts (87.3 %) were awarded to the 25 largest metropolitan areas.

Table 6: Ranking of homeland security procurement by metropolitan statistical area, 2004

Rank	Metropolitan region	Total Procurement in 2004	% of Total Procurement
1	Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	\$ 2,775,331,436	51.9 %
2	Dallas-Fort Worth-Arlington, TX MSA	\$ 405,788,777	7.6 %
3	San Francisco-Oakland-Fremont, CA MSA	\$ 381,457,332	7.1 %
4	Brunswick, GA MSA	\$ 102,412,426	1.9 %
5	Phoenix-Mesa-Scottsdale, AZ MSA	\$ 94,822,827	1.8 %
6	Virginia Beach-Norfolk-Newport News, VA-NC MSA	\$ 80,314,198	1.5 %
7	Corpus Christi, TX MSA	\$ 80,200,799	1.5 %
8	Baltimore-Towson, MD MSA	\$ 77,161,745	1.4 %
9	Tampa-St. Petersburg-Clearwater, FL MSA	\$ 63,997,986	1.2 %
10	Seattle-Tacoma-Bellevue, WA MSA	\$ 63,220,033	1.2 %
11	New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	\$ 62,273,792	1.2 %
12	Akron, OH MSA	\$ 54,297,992	1.0 %
13	Honolulu, HI MSA	\$ 51,910,873	1.0 %
14	San Diego-Carlsbad-San Marcos, CA MSA	\$ 51,407,548	1.0 %
15	Boston-Cambridge-Quincy, MA-NH MSA	\$ 46,932,856	0.9 %
16	Los Angeles-Long Beach-Santa Ana, CA MSA	\$ 42,708,516	0.8 %
17	Houma-Bayou Cane-Thibodaux, LA MSA	\$ 41,641,948	0.8 %
18	Miami-Fort Lauderdale-Miami Beach, FL MSA	\$ 30,622,899	0.6 %
19	Bremerton-Silverdale, WA MSA	\$ 28,387,380	0.5 %
20	Cleveland-Elyria-Mentor, OH MSA	\$ 25,970,739	0.5 %
21	Austin-Round Rock, TX MSA	\$ 24,551,142	0.5 %
22	Elizabeth City, NC MSA	\$ 23,125,939	0.4 %
23	El Centro, CA MSA	\$ 20,860,978	0.4 %
24	Morehead City, NC MSA	\$ 19,889,113	0.4 %
25	Chicago-Naperville-Joliet, IL-IN-WI MSA	\$ 17,465,241	0.3 %
Total procurement in top 25 metropolitan statistical areas		\$ 4,666,754,515	87.3 %
Total procurement in remaining metropolitan areas in U.S.		\$ 610,850,417	11.4 %
Total procurement in international and unidentified areas		\$ 68,239,416	1.3 %
Total procurement in homeland security		\$ 5,345,844,348	

Source: FDPS-NG Procurement Data (2005a)

4.3 Arlington County homeland security procurement trends

Arlington County received more homeland security procurement than any other metropolitan area in the United States (except for Washington D.C.). During 2004, Arlington County captured more than \$818 million (more than Dallas and San Francisco combined) or 29.5 % of the total procurement in the Washington D.C. MSA. Firms located in the rest of Northern Virginia (i.e. Fairfax, Loudon, Prince William, etc.) received more than a third of total procurement in the region while District-based firms were awarded 25.5 % and suburban Maryland firms 11.6 % (Figure 4). Along with other counties in Northern Virginia, Arlington has shown positive growth rates over the last four years in homeland security procurement. In contrast, homeland security contracting in suburban Maryland and the District fluctuated more (see Figure 5).

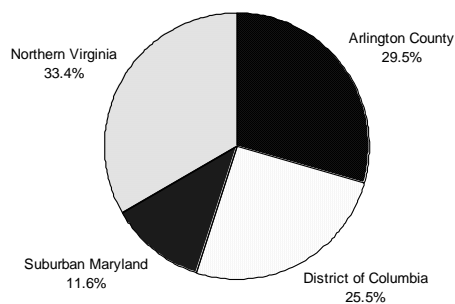


Figure 4: Distribution of homeland security procurement in Washington D.C., 2004

Source: FDPS-NG Procurement Data (2005a)

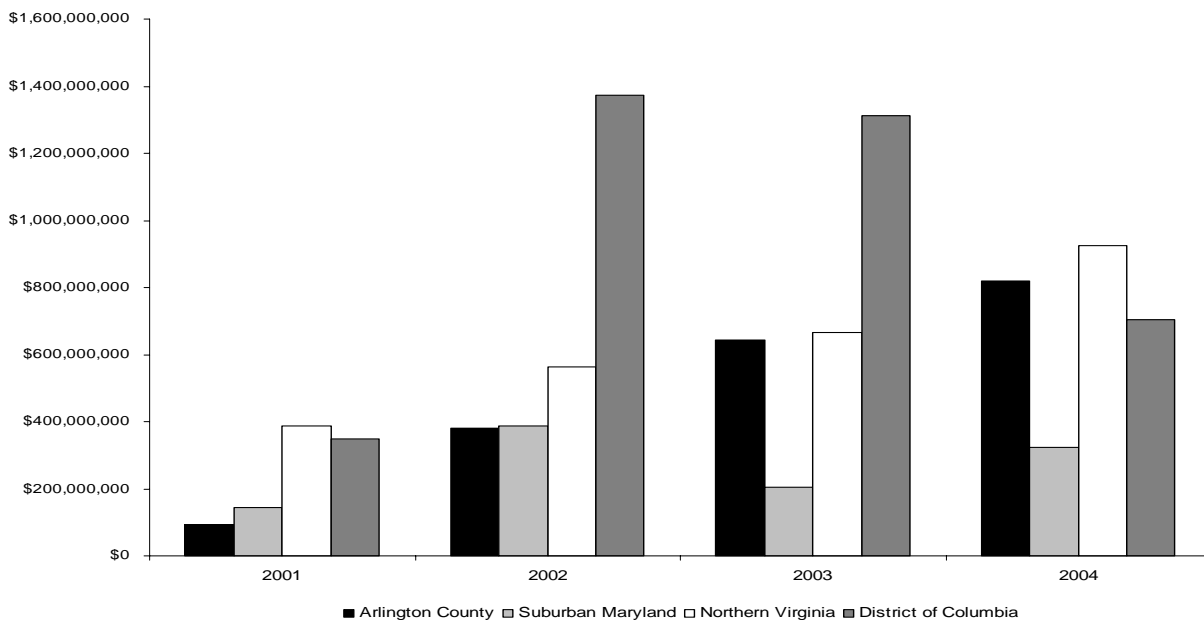


Figure 5: Distribution of homeland security procurement in Washington D.C., 2004

Source: FDPS-NG Procurement Data (2005a)

Table 7: Profile of Homeland Security Spending in the Washington DC MSA, 2001-2004

D.C. Geographic Component	State	2001	2002	2003	2004	Share of Homeland Security 2001	Share of Homeland Security 2004	Annualized Change in \$ Procured 2001-2004
District of Columbia	DC	\$ 349,794,547	\$ 1,373,094,534	\$ 1,312,082,319	\$ 705,557,628	35.9 %	25.4%	26.3%
<i>Sub-total, District</i>		<i>\$ 349,794,547</i>	<i>\$ 1,373,094,534</i>	<i>\$ 1,312,082,319</i>	<i>\$ 705,557,628</i>	<i>35.9%</i>	<i>25.4%</i>	<i>26.3%</i>
Calvert County	MD	\$ 1,389,000	\$ 0	\$ 1,497,909	\$ 761,377	0.1 %	0.0%	-18.2%
Charles County	MD	\$ 98,000	\$ 852,000	\$ 0	\$ 269,300	0.0 %	0.0%	40.1%
Frederick County	MD	\$ 11,346,000	\$ 11,893,000	\$ 20,198,618	\$ 13,258,434	1.2 %	0.5%	5.3%
Montgomery County	MD	\$ 84,068,000	\$ 282,488,299	\$ 111,701,338	\$ 211,827,829	8.6 %	7.6%	36.1%
Prince George's County	MD	\$ 46,344,000	\$ 92,082,867	\$ 71,861,356	\$ 95,503,531	4.8 %	3.4%	27.3%
<i>Sub-total, Maryland</i>		<i>\$ 143,245,000</i>	<i>\$ 387,316,166</i>	<i>\$ 205,259,221</i>	<i>\$ 321,620,471</i>	<i>14.7%</i>	<i>11.6%</i>	<i>30.9%</i>
Alexandria City	VA	\$ 32,988,000	\$ 48,842,081	\$ 35,858,653	\$ 102,963,548	3.4 %	3.7%	46.1%
Arlington County	VA	\$ 93,646,000	\$ 379,269,176	\$ 642,027,662	\$ 818,210,199	9.6 %	29.5%	106.0%
Clarke County	VA	\$ 1,938,000	\$ 6,366,000	\$ 4,363,754	\$ 2,141,831	0.2 %	0.1%	3.4%
Culpeper County	VA	\$ 136,000	\$ 0	\$ 61,461	\$ 0	0.0 %	0.0%	-100.0%
Fairfax City	VA	\$ 76,788,000	\$ 99,638,227	\$ 102,116,495	\$ 129,736,749	7.9 %	4.7%	19.1%
Fairfax County	VA	\$ 208,814,372	\$ 325,035,254	\$ 486,970,042	\$ 646,835,619	21.4 %	23.3%	45.8%
Falls Church City	VA	\$ 16,187,000	\$ 19,519,000	\$ 10,810,350	\$ 7,367,231	1.7 %	0.3%	-23.1%
Fauquier County	VA	\$ 10,000	\$ 428,000	\$ 451,289	\$ 19,248	0.0 %	0.0%	24.4%
Fredericksburg City	VA	\$ 69,000	\$ 118,000	\$ 129,852	\$ 16,106	0.0 %	0.0%	-38.4%
Loudoun County	VA	\$ 33,267,000	\$ 29,338,000	\$ 23,592,911	\$ 33,930,369	3.4 %	1.2%	0.7%
Manassas City	VA	\$ 13,896,230	\$ 34,127,456	\$ 1,301,329	\$ 613,309	1.4 %	0.0%	-64.7%
Prince William County	VA	\$ 3,531,000	\$ 29,000	\$ 32,325	\$ 528,746	0.4 %	0.0%	-46.9%
Stafford County	VA	\$ 56,000	\$ 65,000	\$ 55,000	\$ 500,000	0.0 %	0.0%	107.5%
Warren County	VA	\$ 222,000	\$ 147,000	\$ 0	\$ 0	0.0 %	0.0%	-100.0%
<i>Sub-total, Virginia</i>		<i>\$ 481,548,602</i>	<i>\$ 942,922,194</i>	<i>\$ 1,307,771,123</i>	<i>\$ 1,742,862,955</i>	<i>49.4 %</i>	<i>62.8%</i>	<i>53.5%</i>
Jefferson County	WV	\$ 376,000	\$ 22,529,000	\$ 788,341	\$ 5,290,382	0.0 %	0.2%	141.4%
<i>Sub-total, West Virginia</i>		<i>\$ 376,000</i>	<i>\$ 22,529,000</i>	<i>\$ 788,341</i>	<i>\$ 5,290,382</i>	<i>0.0 %</i>	<i>0.2%</i>	<i>141.4%</i>
Total Washington DC MSA		\$974,964,149	\$ 2,725,861,894	\$2,825,901,004	\$ 2,775,331,436			41.7%

Source: FDPS-NG Procurement Data (2005a)

4.4 Arlington County procurement by DHS agency

The majority of homeland security procurement in Arlington County originates with the Transportation Security Administration and the U.S. Coast Guard. In 2004, these two agencies combined accounted for more than 96 % of the County's total homeland security procurement. For the U.S. Coast Guard, one company in particular is receiving the majority of federal spending. This company is Integrated Coast Guard Systems (ICGS) which received 67 % of total 2004 homeland security procurement in Arlington County. We will discuss ICGS contracting activity in more detail later in this report.

Table 8: Homeland security procurement in Arlington County by DHS agency, 2001-2004

Agency Name	2001	2002	2003	2004
Animal and Plant Health Inspection Service	\$ 304,000	\$ 250,000	\$ 1,310,082	\$ 1,138,983
Bureau of Customs and Border Protection	\$ 0	\$ 0	\$ 80,000	\$ 7,003,131
Bureau of Immigration and Customs Enforcement	\$ 520,000	\$ 1,748,000	\$ 2,702,730	\$ 22,390,995
Federal Emergency Management Agency	\$ 2,047,000	\$ 1,349,000	\$ 2,286,675	\$ 2,035,288
Federal Law Enforcement Training Center	\$ 0	\$ 32,000	\$ 0	\$ 25,894
Immigration and Naturalization Service	\$ 76,226,000	\$ 69,004,000	\$ 19,039,918	\$ 0
Office of the Secretary, DHS	\$ 0	\$ 0	\$ 0	\$ 210,000
Transportation Security Administration	\$ 0	\$ 0	\$ 199,178,250	\$ 225,146,332
U.S. Coast Guard	\$ 13,910,000	\$ 305,344,176	\$ 415,957,430	\$ 560,259,575
U.S. Export Administration	\$ 0	\$ 116,000	\$ 561	\$ 0
U.S. Secret Service	\$ 639,000	\$ 1,426,000	\$ 1,472,016	\$ 0
Total	\$ 93,646,000	\$ 379,269,176	\$ 642,027,662	\$ 818,210,199

Source: FDPS-NG Procurement Data (2005a)

Table 9: Percent share of Arlington-based homeland security procurement by DHS agency, 2001-2004

Agency Name	2001	2002	2003	2004
Animal and Plant Health Inspection Service	0.5%	0.2%	0.8%	0.8%
Bureau of Customs and Border Protection			0.0%	1.2%
Bureau of Immigration and Customs Enforcement	0.1%	0.2%	0.6%	5.5%
Federal Emergency Management Agency	0.6%	0.4%	0.5%	0.3%
Federal Law Enforcement Training Center	0.0%	0.0%	0.0%	0.0%
Immigration and Naturalization Service	12.5%	7.4%	7.4%	
Office of the Secretary, DHS				0.2%
Transportation Security Administration		0.0%	9.2%	13.7%
U.S. Coast Guard	1.5%	23.0%	28.7%	35.4%
U.S. Export Administration		4.1%	0.0%	
U.S. Secret Service	1.0%	1.4%	1.9%	0.0%
Total	3.8%	8.0%	11.8%	15.3%

Source: FDPS-NG Procurement Data (2005a)

4.5 High tech versus non-high tech homeland security procurement

For this report, we analyzed the procurement data by industry classifications. These industry classifications are expressed as NAICS codes in the data and are only complete for the 2001 to 2003 time period. Data with associated NAICS information for 2004 is very incomplete and could therefore not be used for this analysis.

From 2001 to 2003, Arlington County captured almost 17 % of the U.S. high tech procurement in homeland security.¹¹ The county's share of high tech procurement in the D.C. area was even higher and accounted for almost 36 %. Within the Washington D.C. metropolitan region, Arlington County along with the District of Columbia captured the majority of high tech related procurement investments (together these sub regions account for 70.4 %). Surprisingly, Fairfax County and Northern Virginia account for a small share of high tech as Table 10 indicates.

Table 10: Regional shares of high tech procurement in the D.C. region, 2001-2003

Sub Region of the Washington D.C. MSA	Share of total high tech procurement in US	Share of total high tech procurement in D.C.
Arlington County	16.9 %	35.4 %
Fairfax County	8.6 %	18.0 %
Northern Virginia	2.7 %	5.7 %
District of Columbia	16.7 %	35.0 %
Suburban Maryland	2.8 %	5.9 %
Washington D.C. metro region	47.7 %	

Source: FDPS-NG Procurement Data (2005a)

As Figure 6 shows, Arlington County has gained significant shares in high-technology procurement in homeland security. The District of Columbia ranks second while the other jurisdictions trail behind significantly.

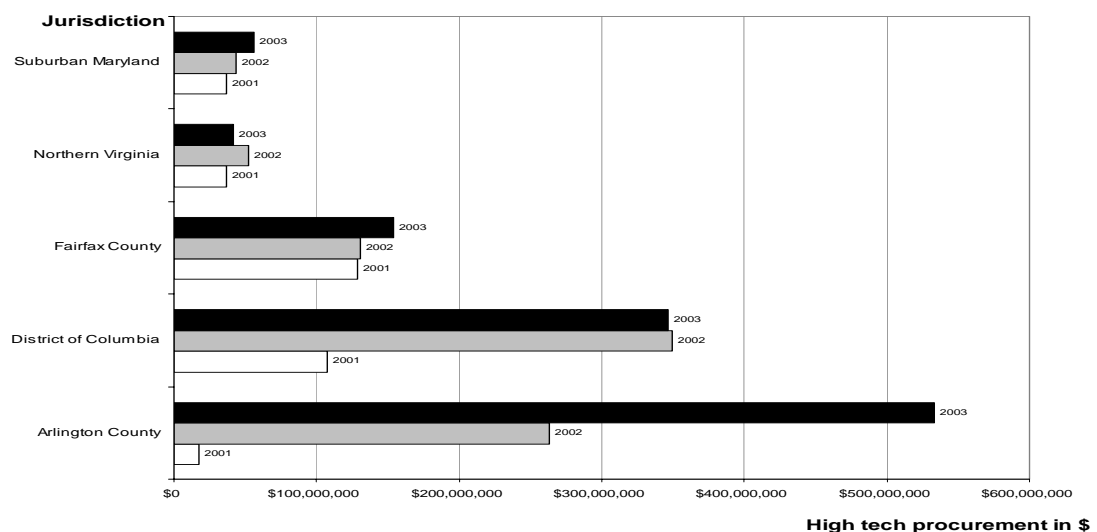


Figure 6: High tech procurement in homeland security in D.C. region, 2001 to 2003

Source: FDPS-NG Procurement Data (2005a)

¹¹ A list of NAICS codes that constitute the high tech industry sector is included in Appendix 3.

Table 11: High tech versus non-high tech procurement in D.C. area, 2001-2003

Sub Region of the Washington D.C. MSA	Total 2001-2003	Change 2001-2003	Average Annual Change 2001-2003
High Tech procurement			
Arlington County	\$813,400,587	2986.4%	455.6%
Fairfax/Fairfax City	\$413,700,009	18.9%	9.0%
Northern Virginia	\$130,439,517	14.0%	6.8%
District of Columbia	\$802,638,778	222.1%	79.5%
Suburban Maryland	\$136,212,763	52.1%	23.3%
Sub-Total, High Tech	\$2,296,391,654	245.5%	85.9%
Non-High Tech Procurement*			
Arlington County	\$301,542,251	42.3%	19.3%
Fairfax/Fairfax City	\$885,662,381	178.4%	66.8%
Northern Virginia	\$211,190,515	-46.0%	-26.5%
District of Columbia	\$2,232,332,622	298.6%	99.7%
Suburban Maryland	\$599,607,624	40.2%	18.4%
Sub-Total, Non-High Tech	\$4,230,335,393	161.7%	61.8%
Total, Both Categories	\$6,526,727,047	189.8%	70.2%

Source: FDPS-NG Procurement Data (2005a)

Note: The category non-high tech includes a total of \$4 million of undefined NAICS categories from 2003 (Appendix 2).

Northern Virginia includes all the Virginia and West Virginia jurisdictions of the D.C. metro area except for Fairfax County and Fairfax City.

We found that Arlington County captures a significant share of procurement that is dedicated to high technology products and services (17 % of total U.S. high tech procurement and 35 % of total D.C. high tech procurement). The main areas the county captures federal spending in high tech relative to the rest of the D.C. MSA are related to the aerospace industry, audio and visual equipment, communications equipment, computer systems design, industrial machinery, technical and managerial consulting services, navigational and measurement instruments, and research and development services (see Table 12). These areas correlate with the findings of our Phase I study in which we presented evidence for employment concentrations in these sectors. Thus, Arlington County employers that have strengths in these sectors are also capturing federal investments in homeland security high tech products and services.

Table 12: High tech versus procurement in homeland security for Arlington, DC, and the U.S., 2001-2003

NAICS 4 Digit Classification	Arlington	DC MSA	United States	Arlington's Share of total US	Arlington's Share of total DC
Aerospace Product and Parts Manufacturing	\$ 57,000	\$ 338,000	\$ 408,158,188	0.01%	16.86%
Architectural Engineering and Related Services	\$ 2,990,746	\$ 434,025,519	\$ 742,143,803	0.40%	0.69%
Audio and Video Equipment Manufacturing	\$ 159,700	\$ 1,998,101	\$ 3,824,433	4.18%	7.99%
Chemical Manufacturing	\$ 0	\$ 38,000	\$ 263,522	0.00%	0.00%
Commercial and Service Industrial Machinery Manufacturing	\$ 103,710	\$ 3,767,035	\$ 15,467,249	0.67%	2.75%
Communications Equipment Manufacturing	\$ 5,390,105	\$ 96,808,417	\$ 200,118,674	2.69%	5.57%
Computer and Peripheral Equipment Manufacturing	\$ 1,524,898	\$ 79,900,788	\$ 267,397,473	0.57%	1.91%
Computer Systems Design and Related Services	\$ 73,734,745	\$ 290,745,041	\$ 368,681,821	20.00%	25.36%
Data Processing	\$ 0	\$ 2,763,472	\$ 4,980,252	0.00%	0.00%
Industrial Machinery Manufacturing	\$ 426,419	\$ 5,222,225	\$ 10,052,309	4.24%	8.17%
Internet Publishing and Broadcasting	\$ 0	\$ 25,000	\$ 25,000	0.00%	0.00%
Internet Service Providers	\$ 0	\$ 634,939	\$ 651,160	0.00%	0.00%
Management Scientific and Technical Consulting Services	\$ 56,572,782	\$ 656,854,946	\$ 1,724,283,352	3.28%	8.61%
Navigatl. Measuring Electromed. and Control Instr. Manuf.	\$ 670,564,442	\$ 687,007,465	\$ 987,642,737	67.90%	97.61%
Other Telecommunications	\$ 0	\$ 1,523,786	\$ 2,455,664	0.00%	0.00%
Pharmaceutical and Medicine Manufacturing	\$ 0	\$ 25,000	\$ 24,753,560	0.00%	0.00%
Prof. & Comm. Equipment & Supplies Merchant Wholesalers	\$ 251,040	\$ 1,407,702	\$ 3,037,746	8.26%	17.83%
Scientific Research and Development Services	\$ 1,150,000	\$ 4,180,757	\$ 9,087,953	12.65%	27.51%
Semiconductor and Other Electronic Component Manufacturing	\$ 0	\$ 4,103,265	\$ 8,680,829	0.00%	0.00%
Software Publishing	\$ 475,000	\$ 25,022,196	\$ 29,100,557	1.63%	1.90%
Total, High Tech Procurement, 2001-2003	\$ 813,400,587	\$ 2,296,391,654	\$ 4,810,806,282	16.91%	35.42%
Non-High Tech Procurement	\$ 301,540,865	\$ 4,227,374,590	\$ 7,854,568,060	3.84%	7.13%
Undefined	\$ 1,386	\$ 2,960,803	\$ 3,912,194	0.04%	0.05%
Total, 2001-2003	\$ 1,114,942,838	\$ 6,526,727,047	\$ 12,669,286,536	8.80%	17.08%

Source: FDPS-NG Procurement Data (2005a)

5. Top homeland security contractors

5.1 Top contractors in the nation

From 2001 to 2003, about 7,700 companies contracted with federal government agencies for homeland security related products and services. Even though this seems like a large number of industry partners for the federal government, the majority of contracts and federal dollars spent on homeland security were concentrated among the top ten contractors and within the top ten metropolitan areas receiving homeland security contracts. Table 13 illustrates this concentration for 2004 and shows that the top 10 contractors in each metro area receive 87 % of the total procurement in homeland security. There is evidence for further concentration because companies like Lockheed Martin and Boeing are represented in more than one of the top ten metro areas. Within the Washington D.C. area, the top 10 homeland security contractors captured almost all procurement (98 %) while in the Baltimore or Tampa regions, procurement seemed to be more spread among firms that are not among the top ten in their respective region.

Table 13: Concentration of federal procurement for homeland security in metro areas, 2004

Rank	MSA	Total MSA Procurement	% of Procurement by Top 10 Contractors in MSA
1	Washington-Arlington-Alexandria, DC-VA-MD-WV	\$ 2,775,331,436	98.0 %
2	Dallas-Fort Worth-Arlington, TX	\$ 405,788,777	99.6 %
3	San Francisco-Oakland-Fremont, CA	\$ 381,457,332	97.6 %
4	Brunswick, GA	\$ 102,412,426	80.9 %
5	Phoenix-Mesa-Scottsdale, AZ	\$ 94,822,827	85.6 %
6	Virginia Beach-Norfolk-Newport News, VA-NC	\$ 80,314,198	72.0 %
7	Corpus Christi, TX	\$ 80,200,799	56.3 %
8	Baltimore-Towson, MD	\$ 77,161,745	28.1 %
9	Tampa-St. Petersburg-Clearwater, FL	\$ 63,997,986	38.5 %
10	Seattle-Tacoma-Bellevue, WA	\$ 63,220,033	82.7 %
Total		\$ 4,124,707,558	87.2 %

Source: FDPS-NG Procurement Data (2005a)

The top 10 homeland security contractors *in the nation* for 2004 were:

1. Integrated Coast Guard Systems
2. Unisys Corporation
3. Boeing North American Inc.
4. Invision Technologies
5. Lockheed Martin
6. Cooperative Personnel Services
7. L-2 Communications Corporation
8. Accenture
9. General Dynamics, Inc
10. Dewberry & Davis LLC

In Appendix 4 we list the top ten contractors in the nation for each year from 2001 to 2003.

5.2 Top contractors in the Washington D.C. metropolitan region

The Washington D.C. region represents the most important market for homeland security procurement. We conducted a detailed analysis of the top 10 companies that contract with the federal government for homeland security products and services. Almost all top 10 companies in the D.C. metro region received most of the procurement in the D.C. region. A small exception is Lockheed Martin for which about 19 percent of its procurement is done in other markets. It is of note that 10.8 % of Lockheed's procurement is performed in the Baltimore MSA.

Table 14: Top 10 contractors in the Washington D.C. region, 2004

Rank	Company Name	Total Procurement in MSA	Total Procurement nationwide, 2004	Portion of Procurement in D.C. MSA, 2004
1	INTEGRATED COAST GUARD SYSTEMS	\$ 550,196,658	\$ 550,196,658	100.0 %
2	UNISYS CORP	\$ 372,464,769	\$ 372,464,769	100.0 %
3	COOPERATIVE PERSONNEL SERVICES	\$ 138,857,727	\$ 138,857,727	100.0 %
4	LOCKHEED MARTIN	\$ 126,648,248	\$ 156,226,846	81.1 %
5	ACCENTURE	\$ 90,683,948	\$ 91,008,948	99.6 %
6	DEWBERRY & DAVIS LLC	\$ 80,808,946	\$ 80,868,946	99.9 %
7	BAKER AND ASSOCIATES	\$ 76,655,094	\$ 78,353,921	97.8 %
8	CHENEGA MANAGEMENT, LLC	\$ 70,549,236	\$ 71,693,943	98.4 %
9	COMPUTER SCIENCES CORP.	\$ 69,268,055	\$ 69,268,055	100.0 %
10	EG&G TECHNICAL SERVICES INC	\$ 62,748,365	\$ 62,748,365	100.0 %
	All other companies	\$ 1,136,450,390		
	Total	\$ 2,775,331,436	\$ 1,671,688,178	98.0 %

Source: FDPS-NG Procurement Data (2005a)

The following provides a brief overview of the main services provided by these firms:¹²

- 1. Integrated Coast Guard Systems:** Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing
- 2. Unisys Corp:** Computer systems design
- 3. Cooperative Personnel Services:** Administrative management and general management consulting services
- 4. Lockheed Martin:** Scientific and R&D services, aerospace
- 5. Accenture:** Administrative management and general management consulting services, human resources and executive search consulting services, other business support services
- 6. Dewberry & Davis LLC:** Architectural engineering and related services, management scientific and technical consulting services
- 7. Baker & Associates:** Aerospace product and parts manufacturing, architectural engineering and related services
- 8. Chenega Management, LLC:** Computer facilities management services, wired telecommunications carriers
- 9. Computer Sciences Corporation:** Computer systems design and related services, management scientific and technical consulting services, Third party administration of insurance and pension funds
- 10. EG&G Technical Services Inc:** Process, physical distribution, and logistics consulting services, all other professional, scientific, and technical Services

¹² The 2004 data misses a lot of information on NAICS codes and definitions. Thus, where information was not found for the 2004 NAICS codes, we examined contracting patterns for 2001 to 2003.

5.2 Top contractors in Arlington County

Arlington County's competitive advantage in capturing homeland security contracting is primarily in the provisions of products and services for the U.S. Coast Guard and for the Transportation Security Administration. Work for 35.4 % of the contracts issued by the U.S. Coast Guard is performed in Arlington County and about 13.7 % of the contracts for the Transportation Security Administration are performed in Arlington.

Table 15: Arlington County's share of DHS agency market, 2004

Agency Name	Arlington Procurement (\$)	Arlington's Share of Total Agency Procurement
U.S. COAST GUARD	\$ 560,259,575	35.40 %
TRANSPORTATION SECURITY ADMINISTRATION	\$ 225,146,332	13.70 %
BUREAU OF IMMIGRATION AND CUSTOMS ENFORCEMENT	\$ 22,390,995	5.50 %
BUREAU OF CUSTOMS AND BORDER PROTECTION	\$ 7,003,131	1.20 %
ANIMAL AND PLANT HEALTH INSPECTION SERVICE	\$ 1,138,983	0.80 %
FEDERAL EMERGENCY MANAGEMENT AGENCY	\$ 2,035,288	0.30 %
OFFICE OF THE SECRETARY, DEPARTMENT OF HOMELAND SECURITY	\$ 210,000	0.20 %
FEDERAL LAW ENFORCEMENT TRAINING CENTER	\$ 25,894	0.02 %
U.S. SECRET SERVICE	\$ -	0.0 %

Source: FDPS-NG Procurement Data (2005a)

Arlington County has captured a variety of companies that were new entrants into the homeland security market. These companies have not been contracting in 2001, but have been able to capture federal contracts in the three years following. Table 16 lists these companies and their status as new entrants. We also have to note that most of the companies in Arlington have a presence in other metropolitan regions. These other locations capture significant shares of firm procurement as well. Table 16 lists the top ten contractors in Arlington County.

Table 16: Top 10 contractors in Arlington County and their share of national, D.C. homeland security procurement, 2001 to 2004

Rank	Company Name	Arlington County Procurement in 2004	% of Firm's National Procurement in Arlington	% of total DC Procurement	Change, 2001 to 2004
1	INTEGRATED COAST GUARD SYSTEMS	\$ 550,196,658	100.0 %	19.8 %	New Entrant
2	LOCKHEED MARTIN	\$ 116,440,987	74.5 %	4.2 %	New Entrant
3	DELOITTE & TOUCHE LLP	\$ 32,047,482	87.8 %	1.2 %	New Entrant
4	SCIENCE APPLICATIONS INTL CORP	\$ 11,886,891	40.3 %	0.4 %	-61.8 %
5	ITS CORPORATION	\$ 10,012,993	15.8 %	0.4 %	New Entrant
6	BEARINGPOINT, INC.	\$ 9,391,078	44.8 %	0.3 %	New Entrant
7	USIS, INC.	\$ 9,359,223	86.7 %	0.3 %	New Entrant
8	UNISYS CORP	\$ 6,817,066	1.8 %	0.2 %	New Entrant
9	SYSTEMS INTEGRATION, INC	\$ 5,410,729	85.4 %	0.2 %	New Entrant
10	SETA CORP	\$ 3,915,728	33.9 %	0.1 %	New Entrant
	All Others	\$ 62,731,364		2.3 %	0.3 %
	Sub-Total, Arlington	\$ 818,210,199		29.5 %	773.7 %

Source: FDPS-NG Procurement Data (2005a)

5.3 Case studies of top homeland security contractors in Arlington

A closer look at the top ten contractors in Arlington County reveals that their contracting activities (as defined by NAICS codes) closely correspond to the County's high tech employment concentrations (Mayer, Holzheimer, & Glidden, 2004). The list below illustrates the main NAICS codes in which these ten companies provide contractual services and products:

- 1. Integrated Coast Guard Systems:** Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing
- 2. Lockheed Martin:** Scientific and R&D services, aerospace
- 3. Deloitte & Touche LLP:** Custom computer programming services
- 4. Science Applications International Corporation:** Engineering services, computer services, environmental consulting services
- 5. ITS Corporation:** n/a
- 6. BearingPoint, Inc.:** Administrative management and general management consulting services
- 7. US Investigations Services, Inc:** Communication equipment manufacturing
- 8. Unisys Corp:** Computer systems design
- 9. Systems Integration, Inc.** Computer services
- 10. Seta Corporation:** Computer systems design

We will now discuss each contractor in more detail by providing a profile of their main business activities. This information was gained from reviewing various secondary data sources such as company websites and newspaper articles. Research to gain a better understanding of the contractual relationships between the federal government and between these main contractors and their sub-contractors is beyond the scope of this report.

1. Integrated Coast Guard Systems

Integrated Coast Guard Systems (ICGS) is headquartered in Rosslyn, Virginia, and manages the Integrated Deepwater System contract.¹³ ICGS accounts for the majority of homeland security spending in Arlington County. ICGS' mission and contract obligations are to modernize the Coast Guard's involvement in deepwater missions, and its products and services contribute to DHS' mission in border protection. ICGS is a venture by Lockheed Martin and Northrop Grumman. The Rosslyn-based team is responsible for systems integration of the Integrated Deepwater System. From 2001 to 2004, ICGS had already contracted for more than \$1.2 billion for homeland security-related products and services. In total, ICGS will receive \$11 billion over a 20 year period (Integrated Coast Guard Systems, 2002).

The contract will completely modernize the Coast Guard's fleet (ships, helicopters, surveillance equipment, etc.). The Rosslyn-based headquarters of ICGS seems to be the management hub for the coordination of over 100 companies from 32 states (Integrated Coast Guard Systems, 2002). Work on the contracts will be performed across the nation and the emphasis will probably be at Lockheed Martin's and Northrop Grumman's headquarter locations (Bethesda, MD, and Los Angeles, CA). Northrop Grumman will perform work on the ship sector which will take place mostly in the Southern states of Mississippi and Louisiana (Pascagoula, Gulfport, New Orleans,

¹³ For more information on ICGS, go to <http://www.icgsdeepwater.com/>

Tallulah). Thus, the Washington D.C. region and the Arlington County jurisdiction of Rosslyn probably serve as the coordination center for ICGS, DHS's Coast Guard, and the various subcontractors to ICGS.

2. Lockheed Martin

Lockheed Martin is one of the largest government contractors and belongs to the category of systems integrators. Headquartered in Bethesda, MD, Lockheed Martin was formed in 1995 through the merger of Lockheed Corporation and Martin Marietta Corporation. Markusen et al. (1991) note that systems integration firms like Lockheed Martin not only design the system, but also offer recommendations on the types of equipments and software needed by government agencies. Thus, companies like Lockheed Martin are typically involved from the beginning to the end of a project. Lockheed Martin employs about 130,000 people worldwide (Lockheed Martin, 2005). Unfortunately we couldn't find any firm-level information on the number of employees in Arlington County.

According to its own website, Lockheed Martin is the "largest provider of IT services, systems integration, and training to the U.S. Government." (Lockheed Martin, 2005) The company works closely with DHS and provides services in the areas of infrastructure protection, supply chain security, deepwater forces, baggage screening (coordination of implementation of new technology at airports across the U.S.), and others. The list of products and services in Lockheed's portfolio ranges from strategy consulting, electronic tracking, geospatial intelligence solutions, LinkSensors Networking, remote sensing, to wireless and mobile computing (Lockheed Martin, 2005).

3. Deloitte & Touche, LLP

Deloitte & Touche LLP originated as an accounting firm in 1845 in London. Since then the company has grown into a global player that provides financial and management consulting services. The global office (headquarters) of Deloitte & Touche is in New York. Like many other consulting companies, Deloitte & Touche specializes in public sector consulting and provides government entities with its consulting services. In a 2005 report, Deloitte & Touche outlines security and defense as key challenges government entities are facing in the future.

On its website, Deloitte & Touche LLP mentions various projects serving the homeland security market (Deloitte & Touche, 2005). Primarily Deloitte & Touche contributed services to organizational restructuring and the integration of activities associated with the formation of DHS and the integration of federal agencies. The company assisted the federal government with "strategic planning, technology, business process integration and real estate. They also assisted with budgeting and financial management." (Deloitte & Touche, 2005) TSA contracted with Deloitte and Touche to conduct risk assessment studies, while DHS contracted for IT integration.

4. Science Applications International Corporation

Science Applications International Corporation (SAIC) is an employee-owned research and engineering firm that was founded in 1969 by a group of scientists in La Jolla, California. Today, SAIC employs more than 42,000 people worldwide and the company has more than 120 office locations in Virginia with about 27 in Arlington County. SAIC provides technology solutions to government agencies such as DHS or DOD.

SAIC's website has a wealth of information on the kinds of homeland security products and services it offers to government agencies.¹⁴ SAIC caters to local, state and federal government entities and provides products and services for protection, detection and response to terrorist attacks. SAIC was involved in the design and implementation of the IT foundation and infrastructure of the Department of Homeland Security. Furthermore, the company offers services for emergency preparedness and response, biosecurity, infrastructure protection, anti-terrorism training and response, border and transportation security, and information analysis. To name a few products, SAIC offers inspection systems for cargo and vehicle inspections (VACIS Inspection Systems), x-ray inspection tools, chemical agent detections systems, radiology survey instruments, assessment tools (CATS), and geo-spatial intelligence products (such as GeoRover).

SAIC's presence in the Washington D.C. area is manifested through a variety of centers that specialize in homeland security: SAIC's Public Safety Integration Center (PSIC) located in McLean, VA, focuses on issues of interoperability and collaborative systems integration. The Center for Biosecurity Strategy conducts vulnerability and risk assessments and devises strategic biosecurity plans. SAIC executives are also involved in public policy and research regarding homeland security. Michael Davis, President of SAIC's Technology Applications Sector (McLean, VA) was selected as one of two industry experts to the executive committee of the Virginia Institute of Defense and Homeland Security (IDHS).¹⁵

5. ITS Corporation

ITS Corporation is based in Los Angeles and has a myriad of regional offices across the United States. The company primarily provides information technology services to government agencies. ITS has a long established track record contracting with agencies such as the Immigration and Customs Enforcement and the Bureau of Customs and Border Protection before these agencies became integrated with the Department of Homeland Security. ITS also has expertise in vulnerability assessment of both the physical and the information infrastructure.

6. BearingPoint

BearingPoint is a McLean, VA, based global consulting firm with 16,000 employees worldwide.¹⁶ The company might be better known under its old name, KPMG Consulting, under which it operated until 2002. BearingPoint's public sector division offers a variety of services to federal government agencies in areas as diverse as housing, trade, customs, fiscal and tax administration. A strong emphasis is placed on homeland security products and services. In a brief overview of its capabilities, the consulting firm points out that it has supported agencies that make up DHS before its organizational restructuring (BearingPoint, 2005). It is highly likely that many of the top homeland security contractors have already had long established contractual relationships with the government agencies that are part of DHS today.

¹⁴ For information on what SAIC offers in terms of national security services, see <http://www.saic.com/natsec/>.

¹⁵ For more information about IDHS, go to <http://www.cit.org/idhs/>. The Institute is a consortium of universities, federal government labs and firms doing research in the realm of homeland security. It is operated by Virginia's Center for Innovative Technology (CIT).

¹⁶ For more information about BearingPoint, go to <http://www.bearingpoint.com/portal/site/bearingpoint>.

Some of the more unique services BearingPoint provides include Internet-based registration systems, identity management, passport system modernization, critical homeland security business process design and re-engineering, war room operations/war gaming environments, organizational change and communications management.

7. US Investigations Services

US Investigation Services (USIS) is “the largest personnel security services company in North America” (US Investigation Services, 2005). USIS is headquartered in Annandale, PA, and also has offices located throughout the Washington D.C. region. The company offers pre-employment screening, staffing, training and intelligence support, business intelligence and investigations. Its top five customers are the Department of Homeland Security, the Department of Defense, the Department of State, the national intelligence community and the Office of Personnel Management.

USIS has an interesting history. The company was formed in 1996 as an employee-owned privatized as a spin off from the Office of Federal Investigation (OFI). Background investigations have a long tradition in the federal government and began in 1883 when the Civil Service Commission was established to provide screening services about the suitability and loyalty of Federal employees.

In 1999, USIS began work on a \$200 million multi-year contract providing personnel security investigation to DOD. In 2002, USIS began offering services to the Federal Aviation Administration (FAA) and the Transportation Security Administration (TSA). USIS was selected to perform background investigations of airport screeners and air marshals (Peckenpugh, 2002). Regulations after September 11 set forth that baggage screeners, and air marshals would be hired as federal employees. Each of them had to undergo background checks and USIS provides its services to federal agencies such as the TSA.

8. Unisys Corporation

Unisys also functions as a systems integrator (Unisys, 2005). Headquartered in Reston, Virginia, the company specializes in information technology services and solutions. Unisys’ U.S. Federal Government Group focuses primarily on the needs of federal agencies. This unit employs about 3,000 people who are often located at clients’ sites.

Unisys concentrates on the homeland security sector through its Office of Homeland Security Solutions. This office is located in McLean, Virginia, and its focus areas are biometric identification and access control, network security, and crisis management. Unisys has been working with the TSA on the US-VISIT program and contributed to the implementation of biometric tools at U.S. borders and exit points.

9. Systems Integration Inc

Systems Integration, Inc. (SII) was founded in 1990 and is headquartered in Landover, Maryland, with additional offices in Arlington, Orlando, Florida and Frederick, Maryland. SII provides integrated customer interaction solutions and operational support to business and government. This includes technology specifically designed to support call centers, help desks, and consumer hotlines. SII became involved in homeland security in 2002, when they won a

\$1.6 million dollar contract from the TSA to provide services and personnel for their consumer response center.¹⁷

10. SETA Corporation

SETA Corporation provides information technology services to government agencies and is headquartered in McLean, Virginia. SETA was founded in 1987 as a spin-off from MITRE (itself a MIT startup company). SETA primarily works with the U.S. Coast Guard, U.S. Customs Service and the TSA (SETA, 2005a). In 2003, SETA received a \$ 9 million contract to develop and maintain the Automated Targeting, Profiling, and Free and Secure Trade systems (ATS) for the U.S. Customs agency. SETA states that “these systems are part of a nationwide, distributed expert system that analyzes most of the import, export, and passenger data available to Customs” (SETA, 2005b). In 2002, SETA received a “Managed Services” contract from TSA to provide the agency with IT products and services such as computer hardware and software, servers, wireless devices, PDAs, and program management. In reviewing these contracts, it’s clear that SETA is a systems integration company specializing in serving federal agencies with IT products and solutions.

¹⁷ For more information, see www.sysintegration.com.

Summary of top 10 Arlington-based contractors

Most of the top 10 companies that perform contract services in Arlington County belong to the group of systems integrators. These firms are large-scale consulting firms that have expertise in developing information technology or defense systems and integrating various requirements for governmental purposes.

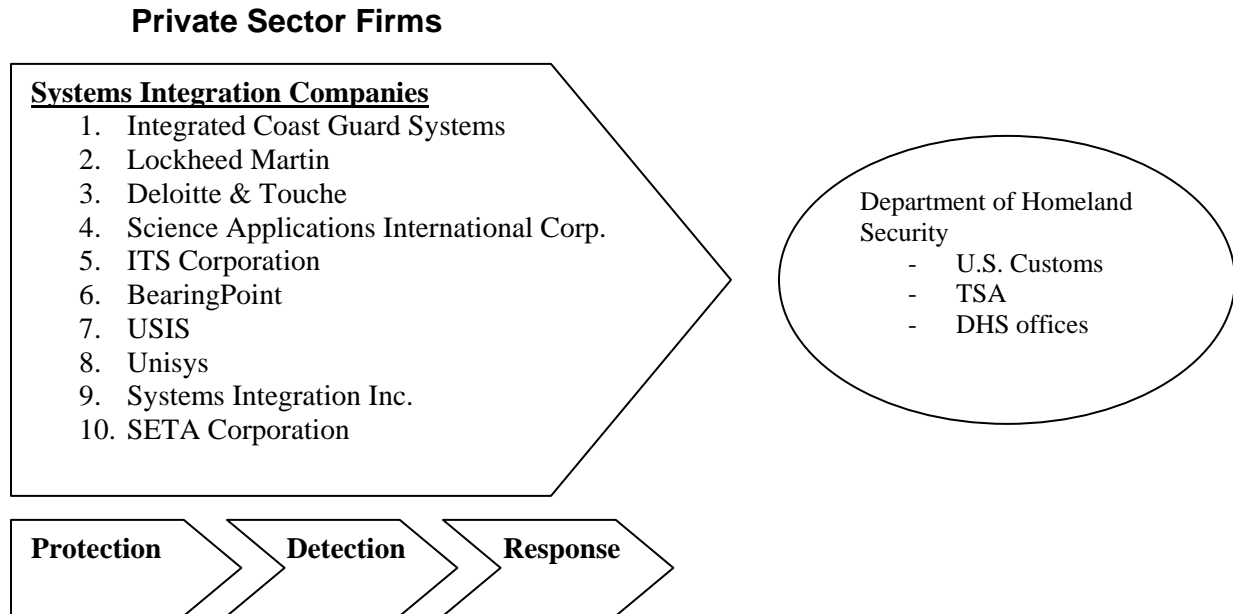


Figure 7: Top 10 Arlington contractors and the homeland security value chain

Source: Adapted from Gould & Beckner (2003)

Figure 7 shows how the top 10 Arlington contractors fit into the broader homeland security value chain. In-depth qualitative research needs to be conducted to find out about their relationship with smaller companies that provide services in the realm of protection, detection and response.

5.4 Top contractors in other Washington D.C. sub-areas

We also examined the top contractors for homeland security products and services in the sub-areas of the Washington D.C. region. Namely we looked at the District of Columbia, Fairfax County, suburban Northern Virginia and suburban Maryland. This analysis will give Arlington Economic Development an idea about what companies are *not* located in Arlington County. In general, we can observe that most of the top 10 homeland security contractors in Arlington are “new entrants,” meaning that they have not performed homeland security contract work in Arlington prior to 2004. The opposite is true for the other jurisdictions in the Washington D.C. region where most of the contractors have done work prior to 2004 and have significantly increased their market shares since 2001. Appendix 5 provides detailed listings of the top 10 contractors in these other geographic areas.

6. Target analysis of DHS procurement

The top 10 contractors that we identified previously are the large systems integration and consulting firms. These companies are a mainstay of the Washington D.C. region and will always offer their services to federal government agencies. That they seized the opportunity to contract for homeland security purposes is not surprising since most of them already have an established tradition in federal contracting and substantial expertise in this field.

For economic development purposes, however, a different analysis might be more useful. We examined our dataset in terms of companies that contract for homeland security, but that have entered the market only recently or have a limited or changing presence in the Washington D.C. region.

We identified the top firms in the following targets:

- **Target #1:** New DHS contractors with limited presence in Washington D.C.
- **Target #2:** New DHS entrants into the Washington D.C. metro region who have less than 100 % of procurement in this area
- **Target #3:** Mid-sized DHS contractors with changing presence in the Washington D.C. metro region
- **Target #4:** DHS contractors who are drawing down their Washington D.C. metro region presence or who's presence is growing but not significant

We recommend Arlington Economic Development to focus its efforts in business expansion for the homeland security industry on targets 1, 2 and 3. Firms listed under target 4 should be carefully considered for business retention efforts since these firms have seen a decline or have been stagnant in their contracting activities. The firms we are listing in the following have more than \$ 1 million in contract activity in 2004.

6.1 Target #1: New DHS contractors with limited presence in D.C. area

The following presents a list of companies that have only recently (in 2004) started to perform homeland security contracting work in the Washington D.C. region. We rank these companies by the percentage of their total procurement activity that takes place in the D.C. region. In the table, we also list the top 4 locations in which these companies have performed contracting work in the past. Arlington County is the primary location of only one company (Kadix System¹⁸).

Table 17: New contractors since 2001 with limited presence in Washington MSA

Rank	Company Name	Top 4 Locations for Procurement, 2001-2004	% of Procurement in DC MSA 2004
1	REVIS ENGINEERING, INC.	South Baltimore, MD; Baltimore, MD; Bethesda, MD; Curtis Bay, MD	1.4%
2	NU-WAY CONCRETE COMPANY, INC.	Bay Minette, AL; Tampa, FL; West Virginia No. 2, WV; Corbin, KY	1.9%
3	TANDBERG, INC	Alameda, CA; Lanham, MD	2.1%
4	INSIGHT PUBLIC SECTOR, INC.	Portsmouth, VA; Tempe, AZ; Chantilly, VA; Anniston, AL	3.1%
5	TKC COMMUNICATIONS LLC	Anchorage, AK; Arlington, VA ; Fairfax, VA; Autauga (County), AL	4.3%
6	SFA, INC.	Portsmouth, VA; Frederick, MD; Highland Park, FL; Virginia Beach, VA	11.5%
7	MPC-G, LLC	Nampa, ID; Alexandria, VA; Kearneysville, WV; Baltimore, MD	12.2%
8	NORTEL NETWORKS INC.	Bohemia, NY; Herndon, VA; Riverdale, MD; Washington, DC	18.3%
9	VITERI CONSTRUCTION MGT INC	Norfolk, VA; Laurel, MD; Portsmouth, VA; Galveston Coast Guard Base, TX	36.6%
10	DIGITAL DATA DEV., CORP.	Las Vegas, NV; Washington, DC	40.0%
11	REGUS BUSINESS CENTER	Washington, DC; Purchase, NY	55.1%
12	DATA MINING INTERNATIONAL	Washington, DC; Los Gatos, CA	56.0%
13	E F JOHNSON COMPANY	Bluemont, VA; Omaha, NE; Waseca, MN; Riverdale, MD	58.8%
14	A K ASSOCIATES, LLC	Berryville, VA; Harvey, IL	89.4%
15	KADIX SYSTEMS	Arlington, VA ; Riverdale, MD; Pickerington, OH	98.9%

Other companies that just recently established a presence in the Arlington County area are:

- Access Systems
- Banner Staffing
- EDS Corporation
- Gene Rouleau & Associates
- Horne Engineering Services
- Imapdata
- Integrated Coast Guard Systems (top 10)
- Integrated Management Services
- Leon Snead & Company
- Master Key Consulting
- Protection Strategies
- QED Consulting
- Resource Management Concepts I
- Ribbins Gioia

¹⁸ For more information about Kadix System, go to www.kadix.com. Kadix System is headquartered in Arlington and has offered multimedia training systems to the FBI.

6.2 Target #2: New DHS entrants with less than 100 % procurement

This table lists companies that have a newly established presence in the Washington D.C. region. While these firms have contracted for homeland security work prior to 9/11, they have *not* contracted for homeland security *in this* region before and are just beginning to establish a presence in the Washington D.C. metro region. Some of the firms (the latter half of the list starting at Rank 10) have more than 50 % of their contract work performed in the D.C. region in 2004.

Table 18: New entrants to Washington D.C. region, 2004

Rank	Company Name	Top 4 Locations for Procurement, 2001-2004	% of Proc. in DC MSA 2004
1	ALLIANT TECHSYSTEMS INC	Lewiston, ID; Glynco (Federal Law Enforcement Training Center), GA; Artesia, NM; Cheltenham, MD	0.2%
2	URS CORPORATION	Bogue, NC; Seattle, WA; Gaithersburg, MD; San Antonio, TX	0.8%
3	FPMI COMMUNICATIONS INC	Huntsville, AL; Niles, MI; Washington, DC	0.9%
4	W R SYSTEMS, LTD	Wildwood, NJ; Norfolk, VA; Fairfax, VA; Kearneysville, WV	1.1%
5	DCS CORPORATION	Portsmouth, VA; Cheltenham, MD	1.6%
6	RAMCOR SERVICES GROUP, INC.	Glynco (Federal Law Enforcement Training Center), GA; Cheltenham, MD; Artesia, NM	17.6%
7	INNOVATIVE EMERGENCY MANAGEMENT	Baton Rouge, LA; Washington, DC	25.4%
8	SBC	Fresno, CA; Sterling, VA; Atlanta, GA; El Paso (County), TX	29.8%
9	ZIMMERMAN ASSOCIATES, INC.	Elkridge (Elk Ridge), MD; Fairfax, VA	44.9%
10	MICROSYSTEMS INTEGRATION, INC.	Washington, DC; Stonington, CT; Pawcatuck, CT	57.1%
11	JDG ASSOCIATES, INC.	Washington, DC; Boerne, TX	82.0%
12	ROLLS-ROYCE CORPORATION	Washington, DC; Elizabeth City, NC; Saint Rose Plantation, LA; Acorn Terrace, MA	86.6%
13	KIMBALL INTERNATIONAL, INC	Arlington, VA ; Washington, DC; Jasper, IN; Providence, RI	90.5%
14	ASAP SOFTWARE	Washington, DC; Newington, VA; Riverdale, MD; Chicago, IL	96.0%
15	OLYMPUS AMERICA INC	Washington, DC; Middlebush, NJ; Dulles, VA; El Paso, TX	97.5%

6.3 Target #3: DHS contractors with changing presence

The following firms conduct less than 70 % of their total contracting performance in the D.C. metropolitan region. Even though they have changed their contracting activity significantly from 2001 to 2004, many of them have expanded their procurement in other areas more quickly. Additional research should be conducted to identify leakage and on how to retain contracting activity in Arlington County.

Table 19: Firms with changing procurement in the D.C. region

Rank	Company Name	Top 4 Locations for Procurement, 2001-2004	% of Procurement in DC MSA 2001	% of Procurement in DC MSA 2004	Change from 2001 to 2004
1	HONEYWELL, INC.	Greer, SC; Phoenix Acres Trailer Park, AZ; Tempe, AZ; Elizabeth City Coast Guard Air Station, NC	0.2%	0.5%	81.3%
2	COMPUTER ASSOCIATE, INC.	Princeton, NJ; Herndon, VA; Alexandria, VA; Elizabeth City Coast Guard Air Station, NC	100.0%	21.1%	309.4%
3	TITAN SYSTEMS CORPORATION	Billerica (Billerica Center), MA; Washington, DC; Fairfax, VA; Hanover, MD	64.1%	21.9%	317.7%
4	EXCELL MANAGEMENT CORPORATION	Glynco (Federal Law Enforcement Training Center), GA; Gaithersburg, MD	100.0%	32.9%	55.0%
5	JOHN J MCMULLEN ASSOCIATES	Seattle, WA; Alexandria, VA; Arlington, VA	100.0%	45.2%	136.9%
6	AVAYA, INC.	Potomac, MD; Columbia, MD; Glynco (Federal Law Enforcement Training Center), GA; East Boston, MA	65.4%	61.0%	310.4%
7	NORTHROP GRUMMAN CORP	Fairfax, VA; Falls Church, VA; Glynco (Federal Law Enforcement Training Center), GA; Knoxville, TN	68.4%	63.2%	27.0%
8	BOOZ ALLEN HAMILTON, INC.	Lexington Park, MD; Arlington, VA ; Mclean, VA; Washington, DC	98.5%	65.6%	47.6%
9	PITNEY BOWES	Annandale, VA; Stamford, CT; Louisville, KY; Arlington, VA	90.4%	66.3%	109.0%

Note: These firms conduct less than 70% of their total contracting performance in the DC MSA but nonetheless maintain a presence in the region.

6.4 Target #4: DHS contractors who are drawing down their presence

The following table shows the contractors that are withdrawing their presence from the D.C. region. The list is ranked by the change in contracting activity from 2001 to 2004.

Table 20: Fastest shrinking contractors in DC MSA for homeland security Procurement, 2001-2004

Company Name	Top 4 Locations for Procurement, 2001-2004	% of Procurement in DC MSA 2001	% of Procurement in DC MSA 2004	Change from 2001 to 2004
COMMUNICATIONS RESOURCE INC	Tysons Corner, VA; Potomac, MD; Riverdale, MD; Washington, DC	100.0%	100.0%	-26.8%
USER TECHNOLOGY ASSOCIATES	Arlington, VA	100.0%	100.0%	-31.6%
PERFORMANCE MANAGEMENT CONSULTANTS INCORPORATED	Mclean, VA; Washington, DC; Arlington, VA ; Fairfax, VA	100.0%	100.0%	-32.5%
NATIONAL INSTITUTE OF BUILDING SCIENCES	Washington, DC; Emmitsburg, MD	100.0%	100.0%	-37.8%
DEPARTMENT OF TREASURY	Lorton, VA; Washington, DC; Baltimore, MD; Bedford, IL	72.4%	100.0%	-41.0%
NATIONAL CON-SERV, INC.	Rockville, MD; Redwood City, CA; Waldorf, MD; Washington, DC	100.0%	83.5%	-45.2%
AMERICAN MANAGEMENT SYSTEMS	Washington, DC; Fairfax, VA; Glynco (Federal Law Enforcement Training Center), GA; Brunswick, GA	100.0%	94.0%	-46.8%
TECHNICA CORP	Washington, DC; Dulles, VA; Dulles International Airport, VA; Dumbarton, VA	100.0%	100.0%	-51.3%
SCIENCE APPLICATIONS INTL CORP	Arlington, VA ; San Diego, CA; Washington, DC; Springfield, VA	67.1%	74.8%	-55.6%
C WIN, INC	Glynco (Federal Law Enforcement Training Center), GA; Cheltenham, MD; Arlington, VA ; Beckley, WV	60.7%	3.8%	-60.4%
TETRA TECH INC	Buchanan, TN; Portland, ME; Reston, VA; Honolulu, HI	16.2%	7.9%	-67.2%
ALLIED TECHNOLOGY GROUP INC.	Norfolk Gardens, VA; Portsmouth, VA; Rockville, MD; Virginia Beach, VA	89.5%	25.4%	-70.6%
COMPAQ COMPUTER CORPORATION	Greenbelt, MD; Houston, TX; Glynco (Federal Law Enforcement Training Center), GA; Riverdale, MD	94.7%	63.2%	-78.6%
UNICOR	Glynco (Federal Law Enforcement Training Center), GA; Pittsburgh, PA; Philadelphia, PA; Lexington (Corporate Name Lexington-Fayette), KY	22.3%	5.9%	-79.5%

TABLE 20 CONTINUED Company Name	Top 4 Locations for Procurement, 2001-2004	% of Procurement in DC MSA 2001	% of Procurement in DC MSA 2004	Change from 2001 to 2004
KPMG LLP	Lorton, VA; Washington, DC; Riverdale, MD; Lanham, MD	98.8%	100.0%	-80.9%
THE LEADS CORPORATION	Washington, DC; Arlington, VA; Arlington Village, VA	100.0%	91.3%	-81.4%
ELECTRONIC DATA SYSTEMS CORP.	Washington, DC; Mechanicsburg, PA; Ashburn, VA; Herndon, VA	100.0%	82.1%	-82.2%
FEDERAL MANAGEMENT SYSTEMS INC	Washington, DC	100.0%	100.0%	-82.6%
BASE TECHNOLOGIES INC	Springfield, VA; Washington, DC; McLean, VA; Newington, VA	100.0%	7.9%	-84.8%
MANTECH MSM SECURITY SERVICES	Springfield, VA; Alexandria, VA; Arlington, VA; Fairfax, VA	100.0%	100.0%	-85.3%
FORCE 3 INC	Crofton, MD; Riverdale, MD; Washington, DC	91.5%	3.0%	-87.6%
XEROX CORP.	Fairview, KY; Glyco (Federal Law Enforcement Training Center), GA; Kearneysville, WV; Saint Petersburg, FL	50.4%	3.5%	-92.3%
HITT CONTRACTING, INC.	Miami, FL; Bluemont, VA; Berryville, VA; Miami International Airport, FL	81.9%	3.3%	-94.4%
MOTOROLA, INC.	Hanover, MD; Columbia, MD; Orlando, FL; Atlanta, GA	38.4%	1.4%	-96.9%
PLANETGOV, INC.	Glyco (Federal Law Enforcement Training Center), GA; Washington, DC; Ogden, UT; Albuquerque, NM	31.7%	1.0%	-97.0%

7. Homeland security institutional assets

Besides being a prime location for firms contracting with the Department of Homeland Security, Arlington County hosts a variety of institutions that contribute in important ways to homeland security research and development, as well as policy and program formulation. Among these agencies are the following:

1. ANSER (Analytic Services Inc.)

ANSER serves federal agencies research services and is located in Arlington County's Shirlington neighborhood. The company provides the federal government with analytic and technical research and supports agencies such as the Department of Homeland Security. ANSER was founded in 1958 to provide research to the Air Force. Today it operates from three locations, which include Arlington County, Hampton, Virginia, and Colorado Springs, Colorado. ANSER has three core competencies. They include *Acquisition Decision Support, Policy & Doctrine Analysis*, and *Education & Training Solutions*. For more information about ANSER see www.anser.org.

2. Homeland Security Institute (HSI)

Arlington County's Shirlington neighborhood is also home to the Homeland Security Institute (HSI). HIS is a Studies and Analysis Federally Funded Research and Development Center (FFRDC) that was established through the Homeland Security Act of 2002. HSI provides DHS with scientific, technical, and analytical expertise it needs for program development and execution. HSI is operated under a contract with ANSER. Besides the federally mandated services, HIS provides information resources in form of e-mail newsletters and journal publications. For more information, see <http://www.homelandsecurity.org/>.

3. DHS's US-VISIT program

The US-VISIT program is the Department of Homeland Security's program to secure safe travel and trade across the U.S. borders. The program utilizes biometric technologies such as fingerprints and digital pictures to record the entry and exit of visitors.

Another important institution dealing with homeland security research and development is the

- Homeland Security Advanced Research Projects Agency (HSARPA)

HSARPA fund short- and long-term research for the Department of Homeland Security. The program is modeled after the Defense Advanced Research Projects Agency (DARPA) and is charged with conducting and contracting for groundbreaking technologies in homeland security. During 2004, HSARPA had a budget of \$918.2 million. HSARPA is directed by David Bolka, a retired Navy captain who has also worked for technology companies such as AT&T's Bell Laboratories and Lucent Technologies Wireless Networks. For more information, see <http://www.hsarpabaa.com/>.

8. Implications for economic development planning

Our analysis of the top homeland security contractors shows that the firms that captured most government contracts in Arlington County are the “usual suspects” (i.e. large system integration companies). These firms may not need the attention of economic development planners since they seem to have a long history of contracting with the federal government. Their needs might be related to ensuring their physical presence in close proximity to government agencies. On the business side, these contractors may have all the necessary experience and information about how to do business with the government.

The more interesting set of companies are the firms that are new to the homeland security market. We identified these firms in the target analysis in this report. Greater opportunities may exist if the County would focus on firms that just started recently to contract for homeland security products and services. The County should also pay attention to the firms that have seen a decline or stagnation in contracting activity. There needs to be a better understanding about the nature of the change and whether these companies are contracting in other areas with federal government agencies.

It might be useful to find out which target firms focus on providing innovative inputs in the areas of protection, detection and response to homeland security threats. Some industry insiders claim that the homeland security value chain also contains firms that provide core knowledge and expertise in these areas as suppliers to the large systems integrators. Thus, a more detailed examination of subcontracting activity may be necessary and insightful.

Also, Arlington Economic Development could utilize the homeland security industry value chain and examine which firms in our target analysis work on protection, detection and response issues. In a second step the firms that fit into these categories could then be matched with the County’s economic strengths identified in Phase I. Thus, a targeted economic development strategy would focus on homeland security firms that fit the Arlington economic profile. This in turn would allow shortening the target list to only those firms that “fit” the Arlington economy. Additionally, economic development planners could find out what the relationship between the target firms is to the big contractors (i.e. “usual suspects”). This in essence would be a industry cluster perspective of the homeland security industry.

Arlington County should also pay more attention to promoting its status as the ideal location for the homeland security market. Its close proximity to central government agencies is a strategic advantage. The County attracts the necessary labor force that a budding knowledge-based industry like the homeland security market may need. As a location for homeland security firms, Arlington County seems to be an important location especially for the TSA and the Coast Guard. The County needs to maintain its location advantage for these two agencies and the firms they contract with.

The County has benefited in particular from one homeland security contractor, Integrated Coast Guard Systems. Planners need to pay attention to its major contractors since they account for a major share of the County’s contracting activity.

9. Future Research

This analysis is limited to a descriptive overview of federal contracting activities in homeland security. We presented an examination of the major private sector contractors that work for the Department of Homeland Security and its various agencies. We were able to show that the amount of contracting undertaken in Washington D.C. and its sub-regions is significant and that Arlington County constitutes an important center for homeland security contracting activity. The analysis, however, is missing critical information about the following areas:

- **Subcontracting activity:** One of our major findings is that the major system integration firms in the Washington D.C. region are among the top contractors (i.e. Lockheed Martin, SAIC, SETA, Unisys, etc.). These big corporations probably have a myriad of subcontracting relationships with smaller companies, which might provide the necessary technological innovation and flexibility in protection, detection and response to homeland security threats. The nature of our analysis, however, does not provide us with information on such subcontracting activity. An in-depth qualitative study would need to be undertaken to find out about the nature of such relationships.
- **Source of innovation and technological advancement:** We don't know much about the capacity for innovation and the sources for new technological knowledge that the major systems integrators draw on. A follow-up qualitative inquiry with these major firms would need to be undertaken to determine what kinds of innovation are undertaken and where the technological know-how comes from. Such an analysis would also need to pay attention to university-based activities in the arena of homeland security. We are thinking of utilizing RAND's RaDiUS as a tool for analyzing federally funded R&D.
- **Future DHS contracting activity:** Our data shows that the federal government quickly responded to homeland security needs after September 11, 2001, by undertaking the acquisition of necessary products and services. The 2002 Aviation and Transportation Security Act was one of a variety of legislations that required the federal government to increase security measures. A common federal government response was the outsourcing of these needs. As a result, a new industry focusing on homeland security developed. However, the question is whether investments will remain at the same level. Government budget forecasts assume that investments would remain steady. Follow-up interviews with officials at the Department of Homeland Security would need to be conducted to determine the direction future contracting activities would take.
- **More detailed target analysis for Arlington County:** Our target analysis provides Arlington Economic Development with an in-depth look at the firms that are entering, expanding, or retracting in the Washington D.C. homeland security market. This analysis needs to be more developed so that Arlington Economic Development would have a greater understanding about which firms to strategically target.
- **Relationships between DHS and DOD:** Our analysis did not examine the relationships between DHS and DOD. There may be significant overlaps between the contracting firms that serve both agencies. Further analysis needs to be conducted to examine these.

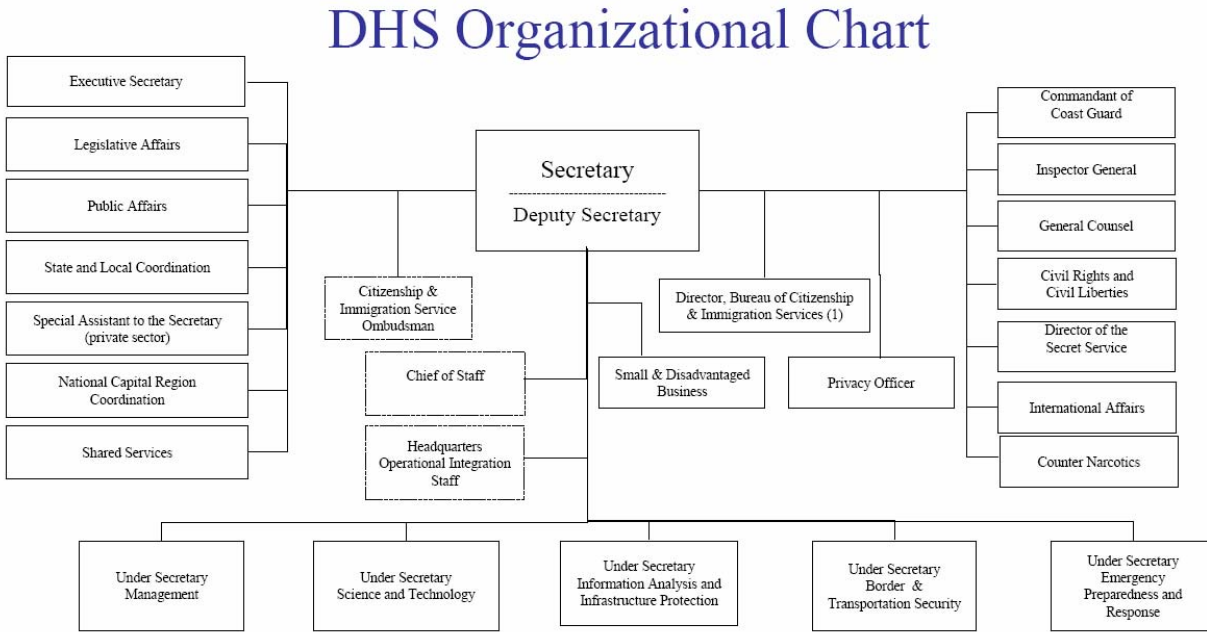
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Appendices

Appendix 1: Department of Homeland Security organizational chart



August 2004

Source: Department of Homeland Security (2005c)

Appendix 2: NAICS analysis

Availability of NAICS codes in homeland security procurement data, 2001-2004

High Tech	2001	2002	2003	2004
High Tech Procurement	\$814,893,314	\$1,641,158,334	\$2,354,754,634	\$994,181,304
Other, Non-high Tech Procurement	\$1,632,121,389	\$3,117,678,173	\$3,104,768,498	\$1,843,693,997
Undefined (no NAICS code associated with record)			\$3,912,194	\$2,507,969,047
Total	\$2,447,014,703	\$4,758,836,507	\$5,463,435,326	\$5,345,844,348

Appendix 3: High technology definition (by NAICS codes)

High technology definition (employer based) by Paytas and Berglund (2004)

High Technology Manufacturing

NAICS 2111 Oil and Gas Extraction

21111 Oil and Gas Extraction

NAICS 3251 Chemical Manufacturing

325110 Petrochemical Manufacturing
325120 Industrial Gas Manufacturing
325131 Inorganic Dye and Pigment Manufacturing
325182 Carbon Black Manufacturing
325188 All Other Basic Inorganic Chemical Manufacturing
325192 Cyclic Crude and Intermediate Manufacturing
325199 All Other Basic Organic Chemical Manufacturing

NAICS 3332 Industrial Machinery Manufacturing

333210 Sawmill and Woodworking Machinery Equipment
333220 Plastics and Rubber Industry Machinery Manufacturing
333292 Textile Machinery Manufacturing
333293 Printing Machinery and Equipment Manufacturing
333294 Food Product Machinery Manufacturing
333295 Semiconductor Machinery Manufacturing
333298 All Other Industrial Machinery Manufacturing

NAICS 3333 Commercial and Service Industrial Machinery Manufacturing

333313 Office Machinery Manufacturing
333314 Optical Instrument and Lens Manufacturing
333315 Photographic and Photocopying Equipment Manufacturing
333319 Other Commercial and Service Industry Machinery Manufacturing

NAICS 3341 Computer and Peripheral Equipment Manufacturing

334111 Electronic computer mfg
334113 Computer terminal mfg
334119 Other computer peripheral equipment mfg

NAICS 3342 Communications Equipment Manufacturing

334210 Telephone apparatus mfg
334220 Radio, TV broadcast & wireless communication equip mfg
334290 Other communications equipment mfg

NAICS 3343 Audio and Video Equipment Manufacturing

334310 Audio & video equipment mfg

NAICS 3344 Semiconductor and Other Electronic Component Manufacturing

334412 Bare printed circuit board mfg
334413 Semiconductor & related device mfg

-
- 334414 Electronic capacitor mfg
 - 334415 Electronic resistor mfg
 - 334417 Electronic connector mfg
 - 334418 Printed circuit assembly (electronic assembly) mfg
 - 334419 Other electronic component mfg

NAICS 3345 Navigational, Measuring, Electromedical, and Control Instruments Manufacturing

- 334510 Electromedical apparatus mfg
- 334511 Search, detection & navigation instrument mfg
- 334512 Automatic environmental control mfg
- 334513 Industrial process control mfg
- 334514 Total fluid meter & counting device mfg
- 334515 Electricity measuring, testing instrument mfg
- 334516 Analytical laboratory instrument mfg
- 334517 Irradiation apparatus mfg
- 334519 Other measuring & controlling device mfg

NAICS 3364 Aerospace Product and Parts Manufacturing

- 336411 Aircraft mfg
- 336412 Aircraft engine & engine parts mfg
- 336413 Other aircraft part & auxiliary equipment mfg
- 336419 Other missile, space veh parts & aux equip mfg

NAICS 4234 Professional and Commercial Equipment and Supplies Merchant Wholesalers

- 423410 Photographic Equipment and Supplies Merchant Wholesalers
- 423420 Office Equipment Merchant Wholesaler
- 423430 Computer and Computer Peripheral Equipment and Software Merchant Wholesalers
- 423440 Other Commercial Equipment Merchant Wholesalers
- 423450 Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
- 423460 Ophthalmic Goods Merchant Wholesalers
- 423490 Other Professional Equipment and Supplies Merchant Wholesalers

High Technology Services

NAICS 5112 Software Publishing

- 511210 Software Publishing

NAICS 5415 Computer Systems Design & Related Services

- 541511 Custom computer programming services
- 541512 Computer systems design services

NAICS 5416 Management, Scientific and Technical Consulting Services

- 541611 Admin & gen management consulting services
 - 541612 Human res & exec search consulting services
 - 541613 Marketing consulting services
 - 541614 Process, phys dist & log consulting services
 - 541618 Other management consulting services
 - 541620 Environmental consulting services
 - 541690 Oth scientific & technical consulting services
-

NAICS 5417 Scientific Research and Development Services

541710 R&D in physical, engineering & life sciences

541720 R&D in social sciences & humanities

NAICS 5161 Internet Publishing and Broadcasting

516110 Internet Publishing and Broadcasting

NAICS 5181 Internet Service Providers

518111 Internet Service Providers

NAICS 5413 Architectural, Engineering, and Related Services

541310 Architectural services

541330 Engineering services

541370 Surveying, mapping (exc geophysical) services

541380 Testing laboratories

NAICS 5179 Other Telecommunications

517910 Other Telecommunications

NAICS 5182 Data Processing

518210 Data Processing, Hosting, and Related Services

Life Science

NAICS 3254 Pharmaceutical and Medicine Manufacturing

325411 Medicinal & botanical mfg

325412 Pharmaceutical preparation mfg

325413 In-vitro diagnostic substance mfg

325414 Biological product (exc diagnostic) mfg

Source: Paytas & Berglund (2004)

Appendix 4: Top 10 homeland security contractors in nation, 2001 to 2004

Top 10 Homeland Security Contractors in 2001

1. TEXTRON SYSTEMS CORPORATION
2. LOCKHEED MARTIN
3. SCIENCE APPLICATIONS INTL CORP
4. RAYTHEON CO.
5. DIGITALNET GOVERNMENT SOLUTION
6. ELECTRONIC DATA SYSTEMS CORP.
7. GULFSTREAM AEROSPACE CORP.
8. IBM CORP.
9. LABAT-ANDERSON, INC
10. COMPUTER SCIENCES CORP.

Top 10 Homeland Security Contractors in 2002

1. LOCKHEED MARTIN
2. IBM CORP.
3. BOEING NORTH AMERICAN INC
4. INTEGRATED COAST GUARD SYSTEMS
5. J H M RESEARCH & DEVELOPMENT I
6. SCIENCE APPLICATIONS INTL CORP
7. TEXTRON SYSTEMS CORPORATION
8. ACCENTURE
9. COMPUTER SCIENCES CORP.
10. RAYTHEON CO.

Top 10 Homeland Security Contractors in 2003

1. BOEING NORTH AMERICAN INC
2. NCS PEARSON, INC
3. INTEGRATED COAST GUARD SYSTEMS
4. UNISYS CORP
5. LOCKHEED MARTIN
6. ITS CORPORATION
7. ACCENTURE
8. GENERAL DYNAMICS, INC.
9. RAYTHEON CO.
10. COOPERATIVE PERSONNEL SERVICES

Source: FDPS-NG Procurement Data (2005a)

Appendix 5: Top 10 contractors in sub-areas of Washington D.C. region, 2004

DC MSA Sector	Company Name	Company DC MSA Sector Procurement	Company DC MSA Procurement	Company National Procurement	% of DC MSA Procurement	% of National Procurement	% of DC MSA Sector Procurement	% of total DC Procurement	Change, 2001 to 2004
Arlington	INTEGRATED COAST GUARD SYSTEMS	\$550,196,658	\$550,196,658	\$550,196,658	100.0%	100.0%	67.2%	19.8%	New Entrant
	LOCKHEED MARTIN	\$116,440,987	\$126,648,248	\$156,226,846	91.9%	74.5%	14.2%	4.2%	New Entrant
	DELOITTE & TOUCHE LLP	\$32,047,482	\$36,255,165	\$36,482,217	88.4%	87.8%	3.9%	1.2%	New Entrant
	SCIENCE APPLICATIONS INTL CORP	\$11,886,891	\$22,083,026	\$29,509,936	53.8%	40.3%	1.5%	0.4%	-61.8%
	ITS CORPORATION	\$10,012,993	\$58,302,909	\$63,542,188	17.2%	15.8%	1.2%	0.4%	New Entrant
	BEARINGPOINT, INC.	\$9,391,078	\$20,974,407	\$20,974,022	44.8%	44.8%	1.1%	0.3%	New Entrant
	USIS, INC.	\$9,359,223	\$10,799,223	\$10,799,223	86.7%	86.7%	1.1%	0.3%	New Entrant
	UNISYS CORP	\$6,817,066	\$372,464,769	\$372,464,769	1.8%	1.8%	0.8%	0.2%	New Entrant
	SYSTEMS INTEGRATION, INC	\$5,410,729	\$6,338,224	\$6,338,224	85.4%	85.4%	0.7%	0.2%	New Entrant
	SETA CORP	\$3,915,728	\$11,561,029	\$11,561,029	33.9%	33.9%	0.5%	0.1%	New Entrant
	All Others	\$62,731,364					7.7%	2.3%	0.3%
	Sub-Total, Arlington	\$818,210,199	\$1,215,623,658	\$1,258,095,113			100.0%	29.5%	773.7%
District of Columbia	COOPERATIVE PERSONNEL SERVICES	\$138,857,727	\$138,857,727	\$138,857,727	100.0%	100.0%	19.7%	5.0%	New Entrant
	ACCENTURE	\$67,018,462	\$90,683,948	\$91,008,948	73.9%	73.6%	9.5%	2.4%	9570.8%
	ITS CORPORATION	\$44,209,516	\$58,302,909	\$63,542,188	75.8%	69.6%	6.3%	1.6%	125.4%
	NISTAC	\$39,215,795	\$40,315,795	\$40,315,795	97.3%	97.3%	5.6%	1.4%	28.9%
	QSS GROUP, INC	\$33,798,847	\$33,798,847	\$33,798,847	100.0%	100.0%	4.8%	1.2%	623.0%
	UNISYS CORP	\$28,038,018	\$372,464,769	\$372,464,769	7.5%	7.5%	4.0%	1.0%	1448.2%
	VERIZON COMMUNICATIONS, INC	\$24,139,479	\$27,137,203	\$27,494,900	89.0%	87.8%	3.4%	0.9%	New Entrant
	FLUOR DANIEL, INC.	\$24,096,570	\$24,096,570	\$24,096,570	100.0%	100.0%	3.4%	0.9%	84.4%
	AIR PARTNER, INC.	\$14,994,379	\$14,994,379	\$14,994,379	100.0%	100.0%	2.1%	0.5%	New Entrant
	ROBBINS GIOIA INC	\$13,501,225	\$17,413,092	\$17,413,092	77.5%	77.5%	1.9%	0.5%	New Entrant
	All Others	\$277,687,610					39.4%	10.0%	-0.7%
	Sub-Total, District of Columbia	\$705,557,628	\$818,065,239	\$823,987,214			100.0%	25.4%	101.7%
Fairfax County	UNISYS CORP	\$337,609,685	\$372,464,769	\$372,464,769	90.6%	90.6%	43.5%	12.2%	10600.8%
	DEWBERRY & DAVIS LLC	\$80,808,946	\$80,808,946	\$80,868,946	100.0%	99.9%	10.4%	2.9%	143.3%
	CHENEGA MANAGEMENT, LLC	\$70,047,579	\$70,549,236	\$71,693,943	99.3%	97.7%	9.0%	2.5%	New Entrant
	ALLTECH, INC.	\$60,733,140	\$60,733,140	\$60,733,140	100.0%	100.0%	7.8%	2.2%	98.2%
	THE MITRE CORPORATION	\$26,674,454	\$30,239,103	\$30,239,103	88.2%	88.2%	3.4%	1.0%	14476.2%

DC MSA Sector	Company Name	Company DC MSA Sector Procurement	Company DC MSA Procurement	Company National Procurement	% of DC MSA Procurement	% of National Procurement	% of DC Sector Procurement	% of total DC Procurement	Change, 2001 to 2004
Fairfax County (Cont.)	ACCENTURE	\$23,438,205	\$90,683,948	\$91,008,948	25.8%	25.8%	3.0%	0.8%	New Entrant
	GTSI CORP.	\$16,145,473	\$19,824,072	\$20,549,133	81.4%	78.6%	2.1%	0.6%	108.0%
	GOVWORKS	\$14,579,760	\$14,579,760	\$14,579,760	100.0%	100.0%	1.9%	0.5%	New Entrant
	JIL INFORMATION SYSTEMS	\$8,423,840	\$8,423,840	\$8,423,840	100.0%	100.0%	1.1%	0.3%	New Entrant
	COMPUTECH, INC.	\$7,689,627	\$7,689,627	\$7,689,627	100.0%	100.0%	1.0%	0.3%	New Entrant
	All Others	\$130,421,658					16.8%	4.7%	-38.1%
Sub-Total, Fairfax/Fairfax City		\$776,572,368	\$755,996,441	\$758,251,210			100.0%	28.0%	171.9%
Maryland	COMPUTER SCIENCES CORP.	\$68,536,340	\$69,268,055	\$69,268,055	98.9%	98.9%	21.3%	2.5%	92.0%
	EG&G TECHNICAL SERVICES INC	\$56,453,789	\$62,748,365	\$62,748,365	90.0%	90.0%	17.6%	2.0%	New Entrant
	IBM CORP.	\$48,185,130	\$51,317,724	\$52,212,810	93.9%	92.3%	15.0%	1.7%	2870.7%
	INFOPRO INC	\$18,390,629	\$18,820,889	\$18,820,889	97.7%	97.7%	5.7%	0.7%	New Entrant
	POST, BUCKLEY, SCHUH & JERNIGAN	\$14,750,621	\$14,750,621	\$14,805,629	100.0%	99.6%	4.6%	0.5%	10.7%
	BART & ASSOCIATES, INC.	\$12,010,001	\$12,010,001	\$12,010,001	100.0%	100.0%	3.7%	0.4%	New Entrant
	ACS DEFENSE INC.	\$11,901,120	\$13,179,659	\$13,179,659	90.3%	90.3%	3.7%	0.4%	New Entrant
	VITERI CONSTRUCTION MGT INC	\$8,897,463	\$9,605,933	\$26,230,832	92.6%	33.9%	2.8%	0.3%	New Entrant
	U S BUSINESS INTERIORS, INC	\$7,525,000	\$7,525,000	\$7,525,000	100.0%	100.0%	2.3%	0.3%	17400.0%
	JOHNS HOPKINS UNIVERSITY	\$5,857,933	\$5,857,933	\$5,857,933	100.0%	100.0%	1.8%	0.2%	New Entrant
	All Others	\$69,112,445					21.5%	2.5%	-25.3%
Sub-Total, Maryland		\$321,620,471	\$265,084,180	\$282,659,173			100.0%	11.6%	124.5%
Northern Virginia	BAKER AND ASSOCIATES	\$76,655,094	\$76,655,094	\$78,353,921	100.0%	97.8%	50.0%	2.8%	511.3%
	ORBCOMM INCORPORATED	\$7,806,475	\$7,806,475	\$7,806,475	100.0%	100.0%	5.1%	0.3%	New Entrant
	VSE CORPORATION	\$5,919,803	\$12,697,429	\$12,697,429	46.6%	46.6%	3.9%	0.2%	4039.7%
	ARTEL, INC.	\$5,430,957	\$5,430,957	\$5,529,050	100.0%	98.2%	3.5%	0.2%	167.5%
	ANTEON CORP.	\$5,206,654	\$19,319,927	\$25,235,141	26.9%	20.6%	3.4%	0.2%	New Entrant
	OMNI CORPORATION	\$4,366,097	\$8,827,370	\$8,827,370	49.5%	49.5%	2.8%	0.2%	New Entrant
	POTOMAC MANAGEMENT GROUP, INC.	\$4,172,514	\$7,461,310	\$7,461,310	55.9%	55.9%	2.7%	0.2%	75.3%
	NORTHROP GRUMMAN CORP	\$3,073,948	\$11,211,991	\$17,726,806	27.4%	17.3%	2.0%	0.1%	1005.7%
	NEWS SPORTS MICROWAVE RENTAL	\$2,995,839	\$2,995,839	\$2,995,839	100.0%	100.0%	2.0%	0.1%	New Entrant
	VERIZON COMMUNICATIONS, INC	\$2,401,360	\$27,137,203	\$27,494,900	8.8%	8.7%	1.6%	0.1%	-85.0%
	All Others	\$35,342,029					23.0%	1.3%	-49.0%
Sub-Total, Northern Virginia		\$153,370,771	\$179,543,596	\$194,128,240			100.0%	5.5%	49.4%
DC Total		\$2,775,331,436							

Source: FDPS-NG Procurement Data (2005a)

