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BRIEFING

Using a Spend Analysis to Help Identify Prospective Air Force Purchasing and Supply Management Initiatives

Summary of Selected Findings

NANCY Y. MOORE, CYNTHIA COOK,
CLIFFORD GRAMMICH, CHARLES LINDENBLATT

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1200 South Hayes Street, Arlington, VA 22202-5050
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SUMMARY

Best purchasing and supply management (PSM) practices as identified by academic and business literature and professional organizations offer many ways by which the Air Force can improve performance and save money by improving the management of existing resources, thereby freeing funds for other priorities. Such techniques include consolidating multiple contracts, particularly sole-source contracts, with existing providers, selecting the best providers and offering them longer contracts with broader scopes of goods and services, and working with selected strategic partners to improve quality, responsiveness, reliability, and cost. Because of the success that leading commercial firms have had improving their purchasing and supply management, the Air Force asked RAND to help it identify opportunities to apply best PSM practices.

A first step toward knowing which PSM practices to use in any particular purchasing situation is to conduct a spend analysis, or an analysis of expenditures along dimensions such as type of commodity or service and suppliers, numbers of contracts and expenditures, and other variables showing how current money is spent on goods and services. Private firms place high importance on such analyses; 80 percent of supply chain executives in a recent survey view a spend analysis as "very important" or "critical" to the success of their enterprise (Aberdeen, 2002). A spend analysis can help enterprises improve their purchasing practices in the areas where they are likely to produce the greatest benefit.

This documented briefing summarizes a high-level analysis of Air Force spending and suggests some activities the Air Force may wish to review, revise, or improve in its purchasing and supply management. There are many challenges to conducting an Air Force–wide spend analysis, primarily the lack of detailed, centralized data on all expenditures as well as questions about data quality for those data that are available. Nevertheless, the data that do exist point to many prospective sources of savings and performance improvements.

In FY02, 69 percent of the Air Force budget was spent on goods and services procured from other organizations. Continuing efforts to competitively source or privatize many noncore activities likely mean that purchases of goods and services will increase in importance. Concentrating on better management of purchases of goods and services

by strategically and actively managing suppliers and supplier capacity rather than the tactical procurement of particular items from external organizations can lead to a higher quality of goods and services procured at lower total cost from more responsive providers.

In this briefing, we show the potential benefits of a spend analysis for improving Air Force purchasing. We analyze the most complete centralized source available on Air Force expenditures, data on direct purchase transactions of $25,000 or more, also known as DD350 data. Transactions in the DD350 data constitute 96 percent of all Air Force contract dollars spent directly (as opposed to intragovernmental transfers), or 47 percent of the total Air Force budget. These data provide information along many dimensions of interest, including how much and what the contract was for, purchase office code[1] issuing the contract, name of provider winning the contract, industry classification of purchases, number of solicitations and offers, and type of contract (e.g., sole-source or competitive).

The DD350 data provide detail on an enormous amount of goods and services that the Air Force purchases, totaling more than $47 billion annually, in a wide range of industries (represented by nearly 1,200 Federal Supply Class codes) from a huge number of contractor ID codes (more than 10,000). There are several indicators in the DD350 data that the Air Force may wish to examine more closely in seeking greater purchasing and supply management efficiencies. These include:

- Nearly 240 purchase office codes. This indicates potential opportunities to consolidate duplicated purchasing efforts across the Air Force, reducing transaction costs, and realizing savings such as those from volume discounts. Further savings may be possible by consolidating purchases across the Department of Defense (DoD). (See pp. 31–32.)
- A large number of contracts for localized base operating support services, such as building maintenance, groundskeeping, and janitorial services. The Air Force may wish to consolidate these. Such consolidation might seem to adversely affect socioeconomic goals for small businesses, but in fact many small businesses themselves hold several such contracts and consolidation of these can help them grow and improve. (See pp. 38–39.)

[1] Because Air Force organizations can have more than one purchase office code, we specifically use, at the request of the Deputy Assistant Secretary for Contracting, the term "Purchase Office Code" instead of "purchasing office" or a similar variant.

- Operational procurement offices (i.e., offices that buy goods and services for Air Force bases or installations) executing more than 800 contracts per year, or in more than 200 Federal Supply Classes, or with more than 400 contractor codes. As a result, operational procurement personnel may have difficulty becoming expert with specific industries or contractors (See pp. 22–23.)
- More than one in three, or 34 percent, of contractor ID codes having multiple contracts with the Air Force.[2] Because many Air Force suppliers have multiple contractor ID codes, this actually underestimates the number of multiple contracts with the same company. For companies with multiple contracts, the Air Force is paying for the contractor's repetitive bidding and contract administration costs through higher prices. (See pp. 34–35.)
- Many purchase office codes associated with the same contractor. Buyers indirectly pay each contractor's administrative and any marketing costs associated with selling its services to more than one unit of the buying enterprise. The decentralized Air Force purchasing structure leads to nearly one in four, or 24 percent, of contractor ID codes selling to more than one Air Force purchase office code. (See pp. 36–37.)
- Contracts for goods or services available from only one supplier. Such sole-source contracts account for 46 percent of the dollars spent on DD350 contracts. Although sole-source contracts can be desirable, the opportunities for gaining leverage over sole suppliers may be limited. Still, the Air Force may be able to pursue performance improvements and cost savings with such suppliers. (See pp. 40–41.)

We explore several ways the Air Force can address purchasing and supply management challenges identified by the data. One of these involves "corporate contracts," or the grouping of several individual, sole-source contracts with a company into one larger contract. A corporate contract lets the Air Force leverage its buying power for more favorable terms and conditions. The Air Force is currently consolidating some contracts with its largest corporate providers to obtain performance improvements and cost savings. It also may wish to lead efforts for DoD-wide corporate contracts with corporations (e.g., jet engine manufacturers) for which it

[2] Because many large enterprises have multiple business units and locations, it is standard in the commercial world and within DoD to give each location a separate number, called a "contractor ID code" in the DD350 data, and hence the term we use to describe purchases from a particular business unit and location.

makes most DoD purchases. For commodities procured more by other services, the Air Force may prefer to yield leadership on supplier relationships to other DoD branches.

A thorough spend analysis identifies not just opportunities for savings and performance improvements but also some of the risks that may be associated with using innovative purchasing and supply management practices, particularly those in situations where there is or are:

- Only one supplier or limited competition with few bidders
- Suppliers with financial problems
- Low or highly variable demand
- No contract
- No supplier performance incentives or commitment to improve
- Inadequate or poor past performance information
- Inappropriate scopes of work.

Some of these factors may be relatively simple to locate in existing spend data. Others must be researched more carefully using additional internal and external data sources. In particular, conducting a complete Air Force spend analysis would require information on the needs, preferences, and priorities of commodity users not available in the DD350 data. Because the Air Force needs to balance prospective savings, performance improvements, risks, socioeconomic and other goals, and other regulations not always present in the private sector, not all best commercial practices may be appropriate for it.

Because the DD350 data do not contain all elements needed for a complete Air Force spend analysis, conclusions drawn from them can only be speculative. An in-depth spend analysis would require combining multiple data sources; gathering and integrating additional data on suppliers, markets, internal Air Force requirements, and market factors; maintaining substantial computational capability and experts to process the numbers; and developing knowledgeable personnel to perform the analytical tasks from a service-wide perspective across all enterprises with which the Air Force does business.