Skip all front matter: Jump to Page 1

DOCUMENTED
BRIEFING

Targets for Marine Corps Purchasing and Supply Management Initiatives

Spend Analysis Findings

Nancy Y. Moore, Clifford A. Grammich,
Mary E. Chenoweth, Judith D. Mele

Prepared for the United States Marine Corps

RAND NATIONAL DEFENSE RESEARCH INSTITUTE

The research described in this report was prepared for the United States Marine Corps. The research was conducted in the RAND National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Department of the Navy, the Marine Corps, the defense agencies, and the defense Intelligence Community under Contract DASW01-01-C-0004.

Published 2011 by the RAND Corporation
1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665
RAND URL: http://www.rand.org
To order RAND documents or to obtain additional information, contact
Distribution Services: Telephone: (310) 451-7002;
Fax: (310) 451-6915; Email: order@rand.org

Summary

Like the other military services, the U.S. Marine Corps must execute an increasingly broad array of tasks. In conducting these operations, it has had to embrace new operational and support concepts and to make the most of existing resources.

Improved purchasing and supply management (PSM) practices can offer ways for the Marine Corps to improve performance and save money through better management of its existing resources and freeing of funds for other priorities. Such practices may 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, and cost. Because of the success of earlier efforts by the Department of Defense (DoD) to improve PSM, as well as that of leading commercial firms, the Marine Corps retained RAND in September 2004 to perform high-level spend analyses of fiscal years 2003 and 2004 contract transaction data. In October 2004, it established a Strategic Purchasing Initiative (SPI) Integrated Process Team (IPT) that used these analyses to apply best PSM practices to its operations.

One of the steps in implementing best PSM practices is to conduct a spend analysis. A spend analysis is an analysis of expenditures along such dimensions as type of commodity or service and suppliers, number of contracts and expenditures, and other variables showing how current money is spent on goods and services. A spend analysis can help enterprises identify areas where PSM initiatives are likely to produce the greatest benefit. This document summarizes a high-level analysis of Marine Corps spending and identifies prospective PSM opportunities. This analysis was used by the SPI IPT to help target areas of spending for its initial commodity teams.

Background

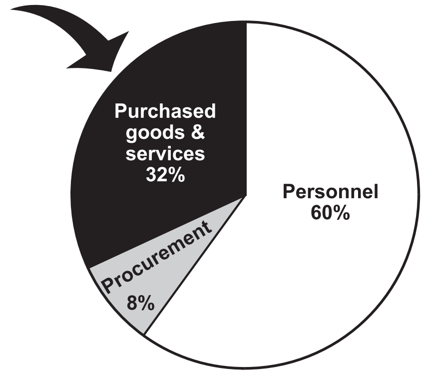
In fiscal year (FY) 2004, the total Marine Corps budget was $18.9 billion (Figure S.1). Of this, $7.6 billion, or 40 percent, was for weapons (i.e., procurement) and other goods and services. Most of these expenditures are actually made by the Navy, Army, and Defense Logistics Agency (DLA) on behalf of the Marine Corps rather than directly by the Marine Corps itself. This analysis represents a first effort to document Marine Corps goods and services, a category not usually presented in military budgets.

Figure S.1

Purchased Goods and Services Total More Than $6 Billion in the Marine Corps Budget

- **USMC has greater control over nonpersonnel costs**
- **Nonpersonnel costs are influenced by**
  - **Wars**
    - **Iraq**
    - **Afghanistan**
  - **Competitive sourcing**
  - **Reengineering**

Marine Corps FY04 budget $18.9 billion



SOURCES: OUSD (Comptroller), *National Defense Budget Estimates for FY2006*, February 2005 Tables 6-3, 6-6.
NOTE: Total Obligation Authority data $18.0B=budget, $1.5B=Procurement, $11.1B=Personnel ($10.4=MilPers,$0.7B=CivPers); $5.4B=Goods and Services; http://navweb.secnav.navy.mil/pubbud/06pres/highbook/appendixtables.pdf (Tables A-2a, A-4a, 14, 15); https://164.224.25.30/FY06.nsf/($reload)/D414517DB5B5D36285256FB200499173/$FILE/OMMC_DataBook_FY06PB.pdf; https://164.224.25.30/FY06.nsf/($reload)/88404197AC3F190385256FC1004153C0/$FILE/OMMCR_FY06PB.pdf; Marine Corps Concepts and Programs, 2004.

RAND S.1

Because nonpersonnel costs are those over which the military services generally have greater control, and because the Marine Corps has a higher proportion of its budget devoted to personnel than the other services do, the Marine Corps has smaller opportunities than other services for PSM improvements. Nevertheless, the proportion of the budget devoted to goods and services in particular is worth careful consideration for two reasons. First, the nonpersonnel budget, particularly that for goods and services, has grown faster than the personnel budget in recent years. Second, the budget for these could continue to grow to the extent that operations in Iraq and Afghanistan require additional purchases, reengineering of business processes leads to decreased requirements for support personnel, or outsourcing of services leads to increased purchases of goods and services.

Several sources of data are available on direct expenditures by the Marine Corps as well as on indirect expenditures made by others on its behalf for weapons and other goods and services. Unfortunately, many years of decentralized purchasing practices across DoD means there is no single centralized database of purchases and that available data vary in quality.

This work seeks to provide as comprehensive an overview as permitted by extant data of direct spending and a significant portion of indirect spending.

Findings on Direct Purchases

For direct commercial purchases, one of the richest sources of extant data is DD350 data.[1] In FY 2004, the year we analyze, DD350 data covered 86 percent of the $3.3 billion in direct commercial purchases by the Marine Corps. Although they constitute less than half of all Marine Corps purchases for goods and services, such purchases warrant special attention by the Marine Corps because of the control the service has over these expenditures.

DD350 data offer detailed information for each contract action of at least $25,000. (In recent years, they have included transactions of at least $2,500 as well.) This information includes the cost of and the general category of the contract, which purchase office codes issued and used the contract, which provider won the contract, whether providers are small or disadvantaged businesses, industry classifications of purchases, the number of solicitations and offers, and the type of market (e.g., sole-source or competitive) for the commodity.

DD350 data show that the Marine Corps has

- *Seventeen different purchase office codes for buying weapons, goods, and services.* In some ways, the number of Marine Corps purchasers is quite lean. There are, for example, far fewer purchase office codes in the Marine Corps than in other services. Nevertheless, it could be leaner still. For example, the Marine Corps appears to have more than a dozen purchase office codes buying such commonly used commodities as office furniture and communications equipment. Consolidating such duplicated purchasing could improve performance by giving those with the greatest expertise responsibility for purchasing a commodity as well as help reduce transaction costs and realize savings, such as those from volume discounts. Further savings may be possible by consolidating purchases across DoD. Indeed, the Marine Corps participates in a commodity council for furniture and fixtures, established by the Navy in April 2005, and leads commodity teams for information technology, clothing, and office equipment. Recently, it has activated commodity teams for professional services and maintenance of equipment.
- *Multiple purchasers and contracts associated with the same parent firm.* More than one in four firms holding Marine Corps contracts have more than one such contract, with one firm having 49 contracts (Figure S.2). For companies with multiple contracts, the Marine Corps is paying repetitive bidding and contract administration costs through higher prices. The Marine Corps may also be diluting its buying power by using multiple contracts to purchase from the same firm. Reducing the number of these contracts

[1] The Marine Corps, along with the other military services and defense agencies, has long collected data on transactions equal to or greater than $25,000 using the DoD Form 350, Individual Contract Action Report, which was stored in the DD350 Contract Action Reporting System.

Figure S.2

Parent Firms with Many Contracts, Purchasers, or Industries May Indicate PSM Targets

Parent Firms w/	%	Avg# (≥2)	Max[a]	Marine Corps Concerns
Multiple contracts	27	4	49	Diluted buying power? Administrative personnel requirements?
Multiple purchase offices codes	16	3	11	High transaction costs? Duplication of effort?
Multiple FSC codes	27	3	28	Contractor's core competencies? – # 1 or 2 in industry? – Investing in improvements?
Multiple NAICS codes	27	3	24	Same as for multiple FSC codes

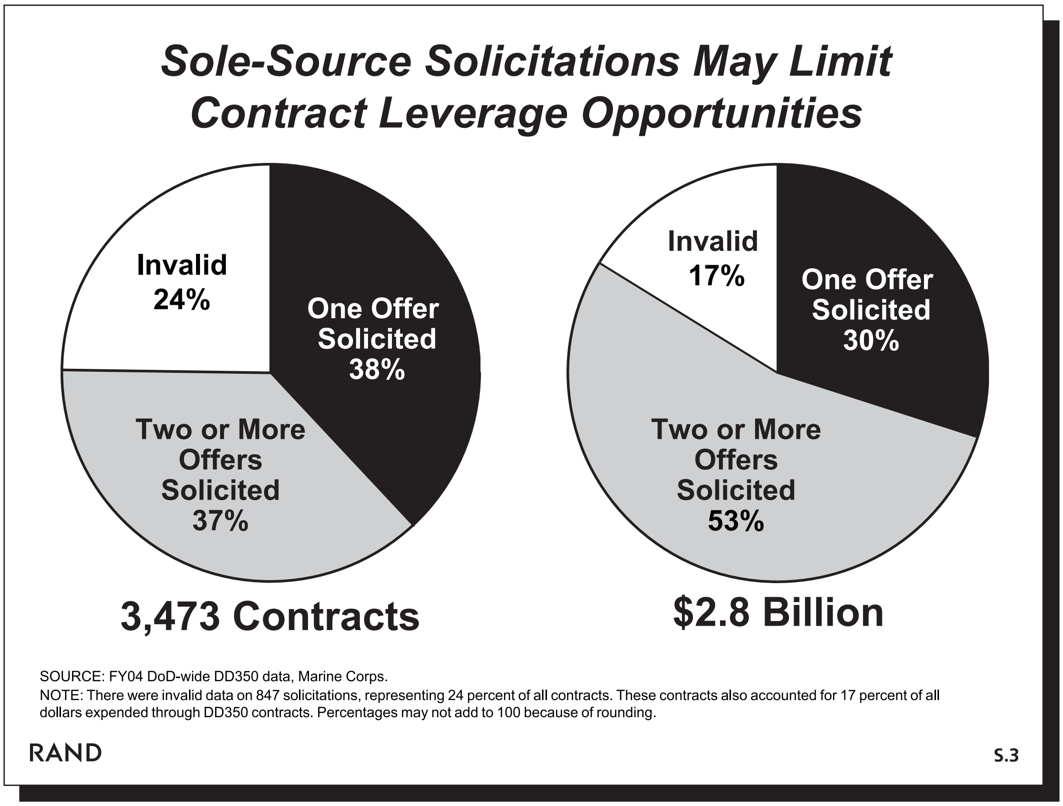
SOURCE: FY04 DoD-wide DD350 data, Marine Corps.
[a]Contracts: WYLE ELECTRONICS; Purchase Office Codes: XEROX CORPORATION; FSC codes: NORTHROP GRUMMAN CORPORATION; North American Industry Classification System (NAICS) codes: RAYTHEON COMPANY.

RAND S.2

may help the Marine Corps improve performance by increasing its leverage with these suppliers.

- *Many purchase office codes associated with the same contractor.* One in six firms with Marine Corps contracts deals with more than one purchase office code, with one supplier having contracts with 11 purchase office codes. When the same contractor has contracts with different offices of the same purchaser, the purchaser incurs indirect marketing costs and other higher transaction costs associated with each contractor selling goods and services to more than one activity of the purchaser. Purchasers may also find it difficult and costly to manage unnecessarily large numbers of contracts with the same provider.
- *Contracts for goods or services available from only one supplier.* Such sole-source contracts account for over one-third of the offers solicited on DD350 contracts (Figure S.3). Although sole-source contracts can be desirable, the opportunities for gaining leverage over sole suppliers may be limited. Still, the Marine Corps may be able to pursue performance improvements and cost savings with such suppliers. Several suppliers have a dozen or more sole-source contracts. Consolidating multiple sole-source contracts with the same sole-source supplier can reduce total costs for both the supplier and the Marine Corps.

Figure S.3



Findings on Indirect Purchases

In addition to DD350 data on direct purchases by the Marine Corps, we explore Active Contract File (ACF) data on purchases the DLA made on behalf of the Marine Corps. Although the ACF accounts for only about $13 billion of the more than $24 billion that DLA had made in direct purchases in FY04, it includes many more smaller contract actions (i.e., those that are less than $25,000) than are present in the DD350.

Altogether, the ACF includes data on $505 million in DLA purchases of goods for the Marine Corps in FY 2004. (Unlike DD350 data, ACF data do not include services.) These purchases represented 4 percent of the total DLA spend shown in the ACF. These data indicate that, for most goods it obtains through DLA, the Marine Corps would have to partner with other services for PSM improvements.

DLA purchased goods used by the Marine Corps through 54,241 contracts, covering 42,942 National Stock Numbers from 4,153 parent company ID codes. Sole-source and single-source contracts accounted for 43 percent of contracts and 24 percent of dollars for goods that DLA purchases for the Marine Corps. That is, DLA is purchasing for the Marine Corps many goods for which there are limited, or no, possibilities for substitution. Three in four contracts as well as four in nine dollars for ACF goods that DLA purchases for the Marine Corps were with small businesses. Many of these purchases may stem in part from federal goals for small business procurement.

Many contracts and most contract actions and dollars managed by DLA are handled through automated actions. Automation can eliminate many of the PSM concerns associated with a large number of contracts, such as those DLA has. Nevertheless, some steps in "automated" processes—e.g., those for shipping goods—are not automated and, hence, can carry costs associated with those of multiple contracts. Furthermore, even "automated" purchases have some transaction costs, albeit ones that are smaller than those for manually processed purchases, which can become substantial when multiplied by thousands of contracts.

Many DLA goods are also shipped from suppliers by direct-vendor delivery (DVD) to the ultimate user. When introducing DVD for items such as nuts and washers consumed in repairs, DLA personnel noted that delays in expensive repairs could be avoided if such items were made available more quickly. DVD, however, can be costly and requires additional handling by users, who have to receipt and distribute many small packages. The trade-off between total costs for a potentially large number of shipments and reductions in inventory costs, as well as shorter order and ship times resulting from DVD, may be worth further analysis.

Conclusions

Although the sheer size of its spend for weapons, other goods, and services, nearly $8 billion, merits attention, the area of opportunities the Marine Corps has for implementing PSM initiatives is smaller than that for the other military services. This difference is because of the large proportion of its spend devoted to personnel and the large amount of its spend for weapons, other goods, and services that is actually spent by others on its behalf.

Still, there are several PSM initiatives to improve performance and reduce costs available to the Marine Corps, many of which it has already taken, to improve performance and reduce costs. Data on both direct and indirect purchases indicate corporate contracts grouping several individual sole-source contracts may allow the Marine Corps to leverage its purchasing power for more favorable terms and conditions. Indeed, initial Marine Corps commodity teams reported, in October 2005, estimated savings that met their goals.

Our research provides a first review of how Marine Corps purchases of different commodity groups and with leading suppliers compare with those of other DoD purchasers, and we discuss who should provide leadership, by supplier and commodity. Our research also indicates who might be best positioned within DoD to provide leadership with certain suppliers or for certain commodities. As a result, the Marine Corps SPI IPT decided to take a two-tier approach. Tier I would establish Marine Corps–wide commodity teams, while Tier II would focus on Marine Corps participation in commodity teams led by others (Simon, 2006).

Although the Marine Corps is typically not the largest DoD purchaser from a given corporation or within a given industry, it is the DoD leader in some niches (e.g., particular sole-source commodities from certain firms) and can help leverage DoD spend more generally. In addition, its PSM initiatives can serve as a model for other military branches and agencies.

Its food service contract consolidation, for example, appears, according to these data, to be a good example of improving business practices and adapting purchases of a commodity to local needs and tastes.

A thorough spend analysis would identify not only opportunities for improving performance and reducing costs but also some of the risks that may be associated with using innovative PSM practices. These include situations in which there may be

- suppliers with financial problems
- low or highly variable demand
- no contract
- no supplier performance incentives or commitment to improve
- inadequate or limited past performance information
- inappropriate scopes of work.

The data we examined offer no information on these variables. Some of them may be relatively simple to analyze in other existing spend data. Others must be researched more carefully using additional internal and external data sources. In particular, conducting a complete Marine Corps spend analysis would require information on the needs, preferences, and priorities of commodity users not indicated in these data. Because the Marine Corps needs to balance prospective savings, performance improvements, risks, and other policy goals, not all best commercial practices may be appropriate for it. Nevertheless, because it is also a comparatively small purchaser of goods and services within DoD, it can benefit most from spend analyses seeking to increase overall leverage, both for itself and the other military services and agencies.