PUBLIC MANAGEMENT AND PERFORMANCE-BASED LOGISTICS IN THE U.S. DEPARTMENT OF DEFENSE

Ira Lewis

ABSTRACT

A central concept in the evolution of public management has been an intentional blurring of the distinctions between the public and private sectors. In the U.S. Department of Defense (DOD), the Performance-Based Logistics (PBL) initiative, launched in 2001, is intended to create a “level playing field” where in-house or contracted organizations are selected for logistics support of a given commodity or weapon system based on performance rather than the nature of the source. This article provides a preliminary discussion of PBL initiatives and assesses the extent to which they appear to be representative of a significant adoption of public management principles by DOD leaders. This review found that while individual DOD organizations have experienced successes and significant lessons learned with PBL, there are significant areas where policy direction remains contradictory and embryonic.

INTRODUCTION

Kelman has emphasized that in comparison with traditional policy analysis, public management (PM) is concerned with a prescriptive focus on implementation, “what actually had to happen inside the government for a good idea to turn into reality.” Similarly, PM’s emphasis is oriented toward strategic actions by senior leaders, in particular those interacting with the political system (Kelman, 2003: 2; Barzelay, 2001: 157-158). Jones has suggested that PM scholars “search for the presence of sufficient inputs (political, economic, social, cultural) to form a ‘critical mass’ of elements necessary to support management change and reform” (Jones, 2003: 10), including specific results and outcomes (Jones, 2003: 11).

A key underlying concept of PM is a de-emphasis of the differences between management in the public and private sectors (Thompson, 2003: 5; Borins, 2002). Similarly, Jones has expressed the view that compared to traditional public administration (PA), PM “pays more attention to the operation of governments from the perspective of their interaction with the environments in which they operate” (Jones, 2003: 10). In the U.S. Department of Defense (DOD), these management interactions would correspond with the inter-relationships between the ranks of political appointees and with leaders in Congress and the private sector, rather than exclusively with relationships among the ranks of career civil servants and members of the military.

Kelman has also commented that organizational issues especially relevant to public organizations receive “grossly insufficient attention from the mainstream of academic management research” (Kelman, 2003: 4). In the general context of the U.S. government, Pollitt and Bouckaert have commented that the record of implementation of reforms has been “patchy,” partially due to the disconnected structure of budget functions, agency
organization, and the jurisdictions of Congressional committees (Pollitt and Bouckaert, 2004: 305). These specific factors may have further discouraged impetus for public management reform research in the U.S. context.

By improving the quality of research dealing with the actual workings of public sector organizations, Kelman has expressed the view that PM research will produce better prescription that will aid in the practice of PM (Kelman, 2003: 5). Jones has mentioned that PM researchers have a specific interest in determining “appropriate service delivery methods, differential pricing alternatives and, even different institutional arrangements for the provision of services including provision by the private and not-for-profit sectors” (Jones, 2003: 11). In this vein, research into DOD logistics fits very much into the tradition of PM research. As Gansler et al have commented, barriers to change in government logistics “can be dismantled or worked around, and the steps that leading companies have taken can provide ideas for achieving government change” (Gansler et al, 2004b: 20). A significant part of this evolution is the emphasis on competition and transaction costs, arising from public choice theory and the new economics of organization. These concepts are contributing to the management of logistics challenges such as contracting (Jones and Thompson, 1999: 13).

In this article, I make an attempt to assess efforts to reform logistics activities within DOD within the context of PM. Within the military environment, logistics includes “the integration of strategic, operational, and tactical sustainment efforts within the theater, while scheduling the mobilization and deployment of units.” Logistics includes activities such as supply, maintenance, transportation, procurement and contracting, distribution, and sustainment (U.S. Department of Defense 2000: v). Logistics reform is critical to DOD; as an example, 22 percent of U.S. Air Force aircraft are estimated to be unavailable at any given time due to lack of spare parts (Gansler et al, 2004a: 5). Furthermore, the increasing use of contractors for logistics support, including in deployed environments such as Iraq, has further elevated the importance of this function as a senior management concern within DOD (Blizzard, 2004). During the decade of the 1990s, private sector logistics, or its close synonym, supply chain management, underwent fundamental changes that are beginning to have a profound effect on public sector logistics activities. These changes include:

- advances in information technology;
- more demanding customers;
- globalization;
- emphasis on cost cutting and industry consolidation;
- enhanced importance of service and shorter product life cycles; and,
- deregulation of the transportation industry (Gansler et al, 2004a: 10-11).

This article begins by reviewing DOD’s strategy for modifying (or “transforming”) its logistics activities by leveraging private sector logistics innovations. I then discuss how this evolution affects the relationship between the government and private sector logistics providers, including how DOD has attempted to modify the policy context for the public-private relationship. Finally, I review the experience to date with certain logistics reform
initiatives and develop conclusions that may assist DOD in its continuing efforts at logistics reform.

**PERFORMANCE-BASED LOGISTICS**

The Quadrennial Defense Review, which is DOD’s overarching policy document, mandated the agency to implement “performance based logistics” (PBL), in order to “compress the supply chain and improve readiness for major weapons systems and commodities” (U.S. Department of Defense, 2001: 56). Logistics reform efforts, which are known by a wide variety of terms including PBL, product support, agile logistics, future logistics enterprise, and precision logistics, all share certain common traits. First, there is a clear emphasis on increased private sector involvement in the delivery of military logistics activities. Second, the theme of fundamental and continuing change—“transformation” is a common term—permeates this broad range of activities (Jones and Thompson, 1999; Apgar and Keane, 2004). DOD has made PBL the preferred approach for supporting weapon systems:

PBL utilizes a performance-based acquisition strategy, versus the traditional transaction-based approach. PBL allows [weapon system program managers] to optimize performance and cost objectives through the strategic implementation of varying degrees of Government-Industry partnerships (U.S. Department of Defense, 2002).

A complementary view of PBL has been presented as follows:

PBL thus embodies a premise of military leadership called “commander’s intent”: present the vision, strategy, and goals, but encourage subordinates to choose their methods. Companies decided which best practices to adopt. Payment is based on performance, with incentives for time and cost savings (Apgar and Keane, 2004).

As Jones as commented, “the goals of system change from the perspective of PM are more oriented towards reduced cycle time, increased quality and reducing costs for citizens than to the satisfaction of more narrow internal efficiency criteria…” (Jones, 2003: 12). Similarly, a major case study research effort led by the IBM Center for The Business of Government found that the key to results in logistics resided in “internal and external digital integration, including new linkages between logistics, procurement, and finance operations” (Gansler and Luby, 2004: xi). These success factors are consistent with DOD’s current goals for PBL, as codified by the Under Secretary of Defense for Acquisition, Technology, & Logistics (AT&L), are listed in Table 1.

<table>
<thead>
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<th>TABLE 1</th>
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<tr>
<td><strong>Objects of AT&amp;L Goals and Subgoals Relevant to Services Acquisition</strong></td>
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<td>Goal No.</td>
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* Objects of Subgoals*
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<tr>
<th></th>
<th>Credibility and effectiveness of acquisition logistics support</th>
<th>Acquisition cycle time, operations and sustainment costs, infrastructure costs, competitive sourcing, customer satisfaction</th>
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<tr>
<td>2</td>
<td>Quality and morale of AT&amp;L workforce</td>
<td>Requirements, experience levels, skill mix, [personnel displaced]</td>
</tr>
<tr>
<td>3</td>
<td>Health of defense industrial base</td>
<td>Competition, efficiency, [small and disadvantaged business]</td>
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<tr>
<td>4</td>
<td>Link between infrastructure and defense strategy</td>
<td>Management support for initiatives, [responsiveness, continuity]</td>
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*The bracketed items are sub-goals not formally associated with the related goals by AT&L but nonetheless of importance to AT&L.*

Source: Camm et al (2004: 9)

Third, all of these logistics reform efforts necessarily recognize that the private sector has always played a dominant role in DOD logistics, even from the viewpoint of simply manufacturing weapon systems such as aircraft, ships, and tanks, as well as the spare parts necessary to support these systems when they are in operation. Fourth, there is a clear emphasis on rewarding contractors for performance in supporting the operational availability of weapon systems, rather than simply complying with narrowly defined contractual provisions (Apgar and Keane, 2004; Doerr, Eaton, and Lewis, 2004).

The fundamental change brought about by PBL and its associated initiatives has been to directly involve manufacturers and other firms in the direct support of weapon systems while they are deployed in the field, such as maintaining an aircraft while it is based in Iraq, including provision of contractor personnel directly alongside their military counterparts. Kelman has made the prescient comment that contracting is important because “we need to train our public sector network managers how to influence to the work of people that do not work for them directly and from what I can see we don’t really know how to do that very well (the lore is not well developed)” (Kelman, 2003: 8).

**THE PARADOX OF SHIFTING ROLES**

It is significant that Jones has commented that PM places more emphasis “on the role of the manager as an active and motivation agent…whereas PA tends to view administrators as those who more passively execute the will of their political masters” (Jones, 2003: 11). A RAND study of DOD contracting (including in logistics) by Camm et al (2004) confirmed that outsourcing tended to transfer day-to-day management of activities from government personnel to contractors. This shift in emphasis for DOD then allowed the government “to think more strategically about how to link contract services to users’ needs or to simplify the process users face to get access to contractor services” (Camm et al, 2004: xvi). Jones has also mentioned that PM tends to focus on [I]ncentives and disincentives … on the input side to government and governance, and on the results or outputs and outcomes of what networks of government agencies and other entities produce. The application of what is termed the production function model (input >
production/workload measures > output and output measures > outcome and outcomes measures in a feedback loop) is far more prevalent in PM and often is sneered at as to much a product of business thinking by many PM scholars (Jones, 2003: 12).

Consistent with Jones’ comments is a trend toward blurring the boundaries between the public and private sectors. Within DOD, public-private partnerships and joint provision of services are indicative of a trend toward a broader range of relationships between two formerly very distinct entities (Camm et al, 2004: xvi; Kamensky and Burlin, 2004).

AN UNCERTAIN POLICY ENVIRONMENT

DOD efforts to reform logistics, particularly through increased private sector involvement, can best be characterized as a tapestry of initiatives that share common characteristics and major distinctions. In particular, the consensus seems to have emerged that while encouraged by the top leadership of DOD (the Office of the Secretary of Defense (OSD)), none of the documented reform initiatives can be traced back to OSD policy direction (Camm et al, 2004: xvii; Gansler and Luby, 2004: xi).

What seems to have occurred is a case of emergent policy rather than explicit or deliberate policy, with little relationship between actual reform and strategic goals (Mintzberg, 1994: 24-27). The Defense Business Board, a senior advisory council appointed by the Secretary of Defense, confirmed the lack of standard guidance on PBL and expressed the need for a “business case analysis” to determine if PBL is even the most suitable approach for a given weapon system (U.S. Department of Defense, 2003: 4), despite the current existence of high-level guidance mentioned mandating that an equivalent analysis be performed before selecting contractor or in-house (also known as “organic”) logistics support. The relationship between OSD policy and actual implementation of PBL is at best a tangential one:

For example, high-level priorities favoring competitive sourcing or outsourcing probably helped promote interest in using contract sources. But no one had to develop the creative approaches to using contractors displayed [in this report] to comply with those priorities. Similarly, high-level support for applying manpower ceilings in theater increased attention to using contractors to support deployed forces; creative acquisition strategies made it much easier to use contractors in theater (Camm et al, 2004: xvii).

Part of the challenge in determining whether PBL or in-house support represents the optimal approach for DOD resides in the fundamental decision as to which functions are most effectively assigned to government. Despite OSD direction, it is the individual services that must actually manage complex weapon systems. While there might be enthusiasm for outsourcing as a means of reducing the size of government, the process of shedding certain public-sector responsibilities creates new ones. In particular, the DOD oversight of contractors becomes critical when these firms’ roles evolve from simply
supplying or repairing individual components such as engines or brakes to managing and integrating entire weapon systems (U.S. Government Accountability Office, 2004; Camm et al, 2004: xvi).

The paradox is that because of the increased importance of oversight, outsourcing can increase, rather than decrease, the importance of certain government functions such as contract administration. Partially because of the difficulties of effective oversight, the GAO found that the private firms it studied had avoided outsourcing the management of entire systems, preferring to contract for support for individual components while keeping responsibility for management of entire systems in-house (U.S. Government Accountability Office, 2004).

DOD EXPERIENCE WITH PERFORMANCE-BASED LOGISTICS

Having reviewed six cases of PBL, a RAND Corporation study pragmatically viewed the OSD role in future initiatives as a limited one. Suggested OSD involvement was restricted to linking individual service and DOD strategic goals, managing congressional concerns, and disseminating lessons learned (Camm et al, 2004: xviii). The IBM study mentioned above (Gansler and Luby, 2004), based on five private sector and five government cases of logistics reform, took a more aggressive stance. The authors believed that fundamental legislative and regulatory change, significant shifts in the management of human resources, and aggressive leadership by senior government personnel (most likely at the political appointee level) could bring about widespread changes in how DOD manages its logistics activities.

For example, there are over 1,000 information technology (IT) systems associated with DOD logistics; the IBM study recommended that DOD adopt interoperability standards modeled on the acquisition by Boeing of McDonnell Douglas and Rockwell. The point here is not to minimize the complexity of DOD’s IT problems or gratuitously distinguish DOD challenges from private sector ones, but to point out the varying advocacy positions taken by outside analysts in making recommendations on DOD logistics reform.

A related issue deals with legislative, or more accurately, political barriers. For example, a statutory provision known as the “50/50 rule” requires half of all government depot work (heavy maintenance) to be performed in government depots (such as Air Logistics Centers or Naval Shipyards) by government personnel (U.S. Code, Title 10, Section 2466). The fact that over 64,000 government employees are involved in this work (and are represented by a Congressional Depot Caucus) gives some indication of the “immovability” of this provision. The IBM study reasonably states that the current situation “raises program costs and diminishes performance, compared to commercial situations, when free competition occurs” (Gansler et al, 2004b: 36).

An analogous situation arises with the division of congressional appropriations to DOD into what are commonly termed “colors or money.” For example, separate funding is provided for capital equipment vs. spare parts, which significantly limits managers attempting to coordinate a single overall relationship with a commercial PBL provider (U.S. Department of Defense, 2003a: 4; U.S. Department of Defense, 2004: 20). Furthermore, budgets are managed on a yearly basis, making long-term relationships with
contractors difficult. In reviewing recommendations for change, it is important to bear in mind that PM necessarily occurs in a context. The application of private sector principles such as competition or performance goals is meant to be nuanced by the unique realities of government.

Despite what could be termed externally imposed regulatory constraints to effective management of PBL, the U.S. General Accounting Office (now the U.S. Government Accountability Office (GAO)) has emphasized that the Army and Navy may be making support decisions “without knowing whether expected readiness improvements and cost-reduction goals are being met, where adjustments are needed, or the conditions under which the various support approaches are likely to achieve the most cost-effective results. The GAO found that the choice of a PBL approach had been documented and justified in only 11 of the 75 weapon systems reviewed (U.S. General Accounting Office, 2002: 3). The findings echoed the GAO’s earlier work on the Air Force, where it was determined that, with the exception of the C-17 Globemaster III cargo aircraft and B-2 Spirit bomber, there was no data available to support the decision to outsource support for 35 systems (U.S. General Accounting Office, 2001: 2). In a related study, the GAO found that in the case of a sample of 14 private firms examined, “performance-based contracting works better for subsystems and components where available cost and performance data are sufficient to establish a good business case analysis, noting that this is more difficult to accomplish for new systems, where performance data are uncertain” (U.S. Government Accountability Office, 2004: 13).

The DOD Inspector General (IG), in examining a PBL contract for the F/A-18 E/F fighter/attack aircraft, known as FIRST (F/A-18E/F Integrated Readiness Support Teaming Program), raised similar questions. FIRST was established between the Navy and Boeing to provide a wide range of logistics support for the F/A-18 E/F, including depot-level maintenance (i.e. heavy overhauls) and provision of spare parts. The IG found that the Navy did not have adequate data to justify the outsourcing of support for the aircraft, and asserted that a case could have been made to keep support in-house. (U.S. Department of Defense, 2003b: 4-17). The IG’s findings echoed the previously-cited view by Jones “the goals of system change from the perspective of PM are more oriented towards reduced cycle time, increased quality and reducing costs for citizens than to the satisfaction of more narrow internal efficiency criteria…” (Jones, 2003: 12). In this context, the Navy’s response to the IG report on the issue of performance metrics is of interest:

The Navy also commented that it did not need metrics for tracking repair cycle times and reliability improvements identified in the acquisition plan. However, the Navy identified the repair cycle time and reliability improvements as desired objectives needed to meet the estimated FIRST life-cycle cost reductions. The Navy did not agree to track infrastructure support costs as a percentage of actual material costs but did agree to charge customers prices based on actual costs. We fail to see how the Navy can do one without the other (U.S. Department of Defense, 2003b: ii).
Similarly, research into supply response times under the FIRST contract found that while certain repair parts were delivered more rapidly under FIRST that through the traditional military supply chain, these improvements might not have any impact on actual readiness (availability for flight) of aircraft. The authors also found that the FIRST contract essentially outsourced the existing Navy supply chain without any fundamental improvements, transferring to the private sector the inefficiencies of the Navy supply chain while possibly threatening logistics as a core competency. Finally, the authors called for a clarification of the Navy’s definition of what logistics functions should be retained internally, accompanied by research into providing quantifiable metrics for the FIRST contract (Noll and Simonson, 2002).

In summary, DOD experience with PBL shows mixed results, perhaps some of which can be traced back to a possible degree of confusion in policy development. It is unclear where the disparate objectives of reducing costs, improving the effectiveness or availability of weapon systems, or leveraging private sector innovation translate into a coherent implementation, prioritized strategy for the military services.

CONCLUSIONS

In their comparative study of public management reform, Pollitt and Bouckaert (2004: 301) express the view that the U.S. system of government is characterized by a “business-oriented” and “free enterprise” culture where “it has been very easy for private sector management concepts to enter to public sector.” The same authors have also emphasized that the current Bush Administration has strongly emphasized competitive outsourcing and the advantages of competition (Pollitt and Bouckaert, 2004: 304). Within this context, I have attempted to follow the advice of Jones and Thompson (1999: 16) and “describe what managers do and try to explain what works and what doesn’t.”

This review of performance-based logistics initiatives within DOD shows decidedly mixed results. The dominant finding is that measuring success in itself is frustrated, if not outright excluded, by the design of existing systems and procedures that are not meant to provide comparative data on the performance of outsourced versus in-house logistics services. It should be noted, however, that this review was limited to studies in the public domain. While these were decidedly more limited in number than those available internally within DOD or its contractors, this research, which examined existing performance-based logistics initiatives, did have the advantage of having been performed by credible organizations with sound public research reputations.

Within the above context, some implications emerge. The first is that in an environment of innovation, changes in public policy may almost inevitably precede the procedural changes and sustained leadership needed to fully validate those policy decisions. Empirical research into the relative success of public management reforms is certainly desirable, but the issue arises of whether adequate and available data exists to perform the evaluative examinations that underlie that research.

Second, due to the commonalities associated with the logistics support of weapon systems, research comparing the experiences in supporting these different systems (such as ships, aircraft, tanks, etc.) within DOD would be of great interest. The initial work carried out by RAND (Camm et al, 2004) represents a step in this direction. There is also
strong potential for international comparative work on the outsourcing of military logistics, especially since many nations share identical or similar weapon systems.

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