

Creating a "Revolution in Business Affairs" in DoD

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Summary

The United States military must modernize its forces and operational concepts to meet the challenges of the 21st century. Such modernization will not come cheaply. In the past, DoD relied on Congress to appropriate additional funds, but at this time, such appropriations appear unlikely. Therefore, DoD will have to modernize within its existing budget.

Currently, 60 percent of DoD's budgeted resources go to the defense infrastructure. Infrastructure expenditures are expected to remain at this level through FY 2001. One reason these costs are so high is that DoD does not use its resources efficiently. To modernize its forces, DoD must modernize its business practices and achieve efficiencies comparable to those in the private sector. This second modernization is the "Revolution in Business Affairs."

Shortfalls of current support practices

DoD's business practices have created a costly, nonresponsive support infrastructure. Some major problems of the current system are:

- In-house costs average 30 percent above competitive rates.
- The repair and logistics systems are slow, unnecessarily tying up billions of dollars of assets in the pipeline. Often, the system stocks and repairs the wrong items, while leaving shortages in other critically needed parts.
- There is a lack of cost visibility throughout DoD. Managers must make decisions without ever knowing their true costs.
- There is a highly inflexible bureaucracy in which civilian white-collar payrolls have diminished by only 2 percent while overall real expenditures have declined by 35 percent.

Creating the “Revolution in Business Affairs”

If the DoD were a nation, it would be the third largest centrally controlled economy in the history of the world. Like all centrally controlled economies, DoD suffers from misallocations of resources, entrenched bureaucratic procedures, inflexible business processes, and reluctance to innovate. As with those economies, a large part of the solution is decentralization.

DoD must empower its personnel by giving them:

- Greater local control over budgeted resources, physical assets, procedures, and purchases.
- Better information to ascertain the financial, manpower, and time costs of their decisions.
- Better incentives at the local unit and activity level that will help support the overall objectives of DoD and the Services.

Together, these changes will foster an atmosphere of competition and customer service among military support activities. Activities that belong in the private sector will migrate to the private sector. Activities that are best provided in-house, will remain in-house. Operating units will have the right incentives to choose the most cost-effective and responsive mix of public and private providers.

The RBA will differ from previous attempts at reform. Instead of imposing changes from above, RBA will create change from the bottom of the organization by giving lower level managers incentives to achieve maximum efficiency.

Specific reforms

Specific reforms needed to implement the RBA include:

- All resources used by operational units should be in their budgets.
- Local commands should have discretion to move funds across accounts and across years.

- Units and installations should be able to competitively choose the suppliers of all commercial support activities.
- The Services should immediately implement activity-based costing for both support and operational units.
- Each facility must become its own cost center, with no cross-subsidization.
- The Services should be allowed to make some changes to Working Capital Fund (WCF) rates to reflect changing costs during the year.
- Prior-year losses should not be included in subsequent WCF rates. There are alternative ways to cover losses without distorting current rates.
- Inefficient in-house providers should be allowed to go out of business.

We recommend that Congress set up a commission to develop comprehensive changes to defense business processes. Working with OSD and the Services, the commission would present a unified package of reforms to Congress. Together, these reforms would alleviate many of the infrastructure problems at DoD.

Introduction

Background

U.S. military expenditures have fallen dramatically since the breakup of the Soviet bloc. Since 1987, real DoD expenditures have declined 35 percent, military manpower 33 percent, and procurements more than 60 percent. However, not all parts of the defense budget have had such reductions. Over the same period, operations and maintenance costs declined by only 17 percent, and civilian white-collar payrolls by only 2 percent [1]. It appears that the military's "tooth" is diminishing far faster than its "tail."

The budget for defense infrastructure has been particularly hard to bring down. The Bottom-Up Review estimated that, in FY 1994, infrastructure activities cost \$160 billion or 60 percent of DoD's total obligational authority [2]. The General Accounting Office (GAO) expects infrastructure expenditures to remain at 60 percent of the defense budget through FY 2001. GAO estimates that infrastructure cost \$146 billion in FY 1997 and that 660,000 military personnel were assigned to infrastructure activities [3]. This is about 45 percent of all active military personnel and is in addition to the 800,000 DoD civilians in the support infrastructure.

Given the lack of an immediate threat by a superpower, the pressures to fund nondefense programs, and the desire to shrink the deficit, the military's budget, in real terms, is unlikely to increase. Yet, we must fund modernization efforts and new initiatives, such as "the Revolution in Military Affairs." The only source for these funds appears to be the military infrastructure accounts.

This paper calls for a "Revolution in Business Affairs" (RBA) to provide an efficient and flexible infrastructure that will support changing military requirements at a price that does not forestall modernization

efforts. The RBA will achieve this by changing fundamental DoD business processes to those that have worked in the private sector.

Previous approaches, including studies by the Commission on Roles and Missions [4], the Defense Science Board Task Force on Privatization and Outsourcing [5], the Defense Science Board Summer Panel [6], and the Quadrennial Defense Review [7], have proposed specific ways, such as outsourcing and reengineering the logistics system, to streamline the support structure. Most of these proposals have been implemented piecemeal with only isolated improvements. One reason for slow implementation is that the changes were recommended from above, and they met great resistance from the underlying organization. The changes appeared contrary to the information available in the system and the incentives of managers and decision-makers, and they assumed a flexibility in the system that doesn't exist. RBA is different; it will create change from the bottom of the organization by giving lower level managers incentives to achieve maximum efficiency.

Why a "Revolution in Business Affairs"?

If the DoD were a nation, it would be the third largest centrally controlled economy in the history of the world. Like all centrally controlled economies, DoD suffers from inefficiencies, misallocations of resources, imperfect production of outputs, entrenched bureaucratic procedures, inflexible business processes, and reluctance to innovate. As with those economies, a large part of the solution is decentralization.

DoD has dedicated personnel who try hard to make the right decisions, but the centralized system frustrates and ultimately defeats them. It is simply not possible to centrally manage an organization the size of DoD and have it be efficient. Too much information is required, too many daily adjustments must be made, and there are too many unique factors at individual units and facilities. DoD needs to empower its personnel so that they can make the right, cost-effective decisions.

The RBA will empower personnel in three ways:

- It will permit greater local control over budgeted resources, physical assets, procedures, and purchases.
- It will provide personnel with better information to ascertain the financial, manpower, and time costs of their decisions.
- It will realign the incentives at local activities and operational units so they help meet the overall objectives of DoD and the Services.

Together, these changes should foster an atmosphere of competition and customer service among military support activities. Activities that can be most cost-effectively provided in-house, will remain in-house. Those activities that belong in the private sector will migrate to the private sector. Operating units will have the right incentives to choose the most cost-effective and responsive mix of public and private providers.

Relationship to the “Revolution in Military Affairs”

The “Revolution in Business Affairs” and the “Revolution in Military Affairs” share many of the same themes. Both will rely on better information and greater authority to empower lower-level activities. The RMA, as described in Joint Vision 2010 [8], foresees that new technologies and better information will “allow increased capability at lower echelons...leveraging the skills and initiatives of individuals and small units. These capabilities could empower a degree of independent maneuver, planning, and coordination at lower echelons, which were normally exercised by more senior commanders in the past.” The Revolution in Business Affairs applies these same principles to achieve far more efficient and flexible military support infrastructure.

The increased flexibility created by the RBA will be critical in the coming decades. Joint Vision 2010 foresees a very uncertain world: “Accelerating rates of change will make the future environment more unpredictable and less stable, presenting our Armed Forces with a wide range of plausible futures.” Such a world requires a dynamic and responsive support system. The current infrastructure cannot meet the need.

The Services would like to believe that their present support structure adjusts to the needs of the operational units. Unfortunately, DoD's business practices work against change. For example, our military has tried to manage its resources by stabilizing the workload of in-house providers. Decisions are made two to three years before the work is performed. In-house providers base decisions for the timing of repairs and training on their need for a level workload with minimum disruption. They do this because it is difficult to adjust the size of civilian and military workforces and reallocate budgets in response to a changing workload. Today, if operational units are unhappy with quality or cost of support, they have few options. In frustration, many in the Pentagon cut budgets, only to find that services are reduced with no improvement in efficiency.

The RBA promises to change that. It will create competition within the support infrastructure and instill a sense of customer orientation. Support activities will have the flexibility to meet rapidly changing customer needs.

Although the RMA's application of these principles to military forces remains controversial, the RBA's application to support activities has been implemented successfully in the private sector. Much has been written about "reengineering," "downsizing," and "outsourcing" within private industry, and these techniques work. The techniques are also a key to recent calls for improving the public sector, such as the National Performance Review efforts to "reinvent government" [9, 10].

This paper has four sections. In the first, we discuss the shortfalls of current support practices and why they should be changed. In the second, we discuss what the "Revolution in Business Affairs" is and how to bring it about. The third section describes results of RBA reforms, and in the final section, we discuss implementation and tie all the material together.

Shortfalls of current support practices

Current DoD business practices produce a nonresponsive, inflexible, and inefficient system that lacks cost visibility. It is not capable of supporting the RMA, and it ties up resources that would modernize the military. In this section, we provide some examples of deficiencies that RBA will address.

Nonresponsiveness

It is widely recognized that the military's system for getting material and repair parts to the units is much slower than similar systems in the private sector [11]. This slow response time falls short of operational requirements and increases the cost to the military.

Table 1 compares typical DoD response rates to those of several private firms. The differences are dramatic, and they show what can be achieved by organizations that use modern information systems and compete to provide services to customers.

Table 1. Comparison of commercial and DoD material processes [11, 12]

Process	DoD average	Sample commercial rates
Distribution for in-stock items	26 days	1 day (Motorola) 2 days (Caterpillar) 3 days (Boeing)
Repair cycle time	87 days	3 days (Compaq) 14 days (Boeing electronics) 14 days (Detroit Diesel)
Procurement administrative lead time	88 days	Minutes (Boeing, Caterpillar) 0.5 days (Portland General) 4 days (Texas Instruments)

Supplying replacement parts in 15 days, as opposed to the current 26, can cut the cost of spares at operational units by 20%.

Sometimes, the slow response is due to misdirected parts. An Air Force study of broken avionics items found that 28 percent were sent to the wrong place for repair [13].

Slow response time leads to increased inventories and costs. If the military supply system could provide replacement parts in 15 days, instead of the current 26 days, operational units would need 20 percent fewer spares [14]. If the system provided parts in 10 days, the units could cut spares by one-third. This would reduce supply purchases between \$400 and \$500 million a year. Thus, although the military should strive for private-sector performance, even small improvements could significantly reduce inventory costs.

Inflexibility

The day-to-day nonresponsiveness is only one dimension of the inertia within the infrastructure. Over longer periods, the support infrastructure does not adjust to changing requirements. This limits the military's ability to reconfigure support to changing operational needs and eats away at resources. The most notable cases are the difficulties in adjusting both facilities and the white-collar work force to the smaller workload.

Military Forces are 1/3 smaller than they were 10 years ago, but facilities have only been cut by 1/5.

Drawing down excess capacity has been slow and difficult. By DoD's own measures, the military forces are one-third smaller than ten years ago, but the base closures have cut facilities by only 20 percent [15]. These numbers mask the fact that many older facilities were not even needed ten years ago, and many of the facilities designated for closing have yet to be closed. Only 60 of 87 major bases designated for closure between 1991 and 1995 were operationally closed at the beginning of FY 1998. Even after the closures are complete, GAO reports that the military will still have 35 percent more laboratory infrastructure than it needs and 50 percent more rotary-wing aircraft training infrastructure [16].

In the last ten years, the white-collar civilian payroll has been particularly difficult to bring down. Today, 800,000 civil servants work in

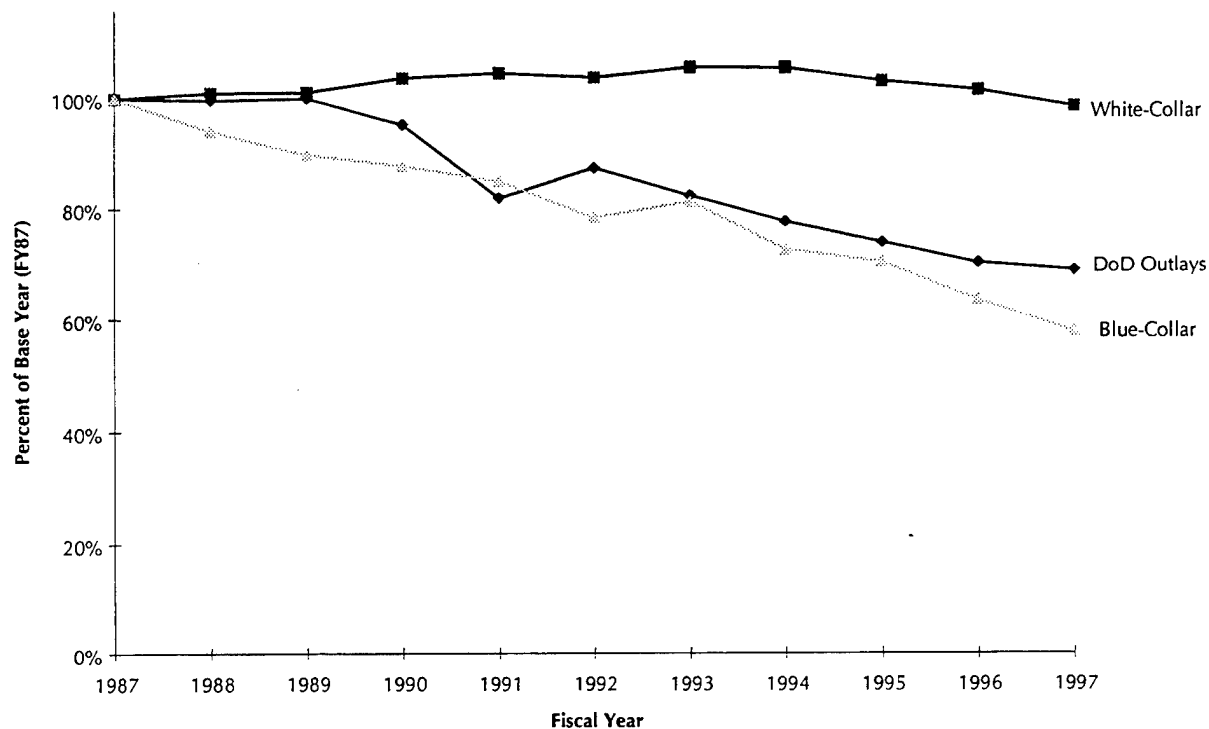
DoD. Since 1988, as overall budget outlays have come down 31 percent, the number of civilians has come down 27 percent, but the civilian payroll has come down only 15 percent [1]. Most of the drawdown has been in the blue-collar workforce. The actual white-collar/blue-collar payroll data in figure 1 show dramatic differences. Blue-collar payrolls have declined 39 percent, while white collar payrolls have come down only 2 percent.¹ A far greater portion of DoD's budget today goes to white-collar civil servants.²

There are many reasons for this relatively flat white-collar payroll. To be fair, we probably shouldn't expect it to come down in the same proportion as total budgets, because the size of headquarters staffs often does not decrease in proportion to reductions in overall organization workload. However, this current inflexibility seems way out of line.

We can attribute this inflexibility to inadequate budget pressures on the white-collar work force. This is most apparent when we look at the OSD white-collar work force which has grown by 35 percent since 1987 in the hope of consolidating work and reducing the DoD's overall payroll. Although reductions have occurred in some areas, they have been more than countered by growth in other areas. When these activities are in the Services, the Services make the tradeoffs between modernization, force operations, support, and staffs. The Services also have trouble reducing the size of their staffs, but to balance their budgets, they are constantly reviewing and paring them. When those staffs move to OSD, they become fenced from this direct review and tradeoff with modernization and operations. Since most of these staffs receive their own budgets, the Services can never reallocate funds and change priorities. OSD may put its own pressure on its

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1. We derive these estimates from data in [1] and assume that Wage Board employees are blue-collar and General Schedule employees are white-collar.
 2. As a benchmark, for the U.S. economy, between 1985 and 1995, real white-collar payroll (measured by number of workers multiplied by median earnings) moved with the gross domestic product (both increased 27 percent), while the blue-collar payroll declined 1 percent [16]. The growth in white-collar payroll relative to DoD budget does not seem to represent overall economic trends.

Figure 1. DoD outlays and civilian payroll relative to 1987 (constant dollars)^a



a. The new locality pay makes up 4.3% of the white collar payroll. Without it, civilian payroll would decline 7%.

agencies, but it is not directly linked to the tradeoffs that the Services must make to perform their mission [17].

This lack of control over the white-collar work force is present even when the agencies are reimbursed by funds originally given to the Services. The agencies are internal monopolies that can define the requirement for their work, set the charge rates, and control any use of alternative providers.

Both examples, the inflexibility of facilities and the white-collar payroll, suggest that DoD has been slow to align its support infrastructure to the needs of today's military. This inflexibility in the system draws resources away from modernization and operational readiness, and it will be even more burdensome when DoD starts to implement the revolution in military affairs.

Inefficiency

DoD in-house monopolies spend far more to provide services than do organizations in competitive markets.

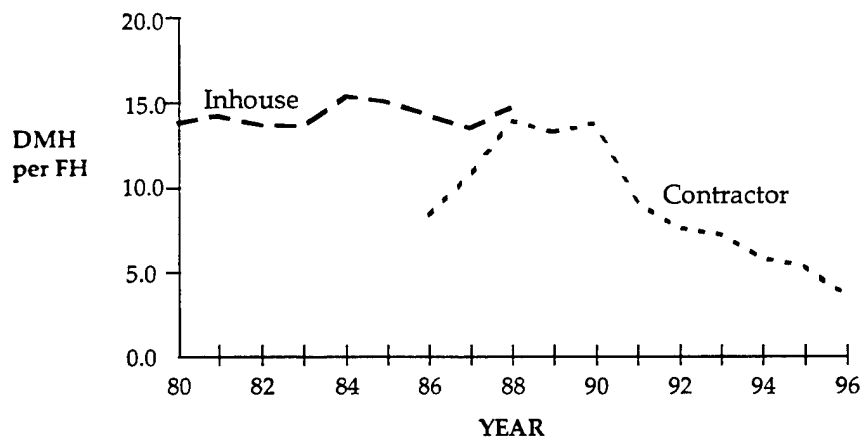
DoD does not make efficient use of its resources. Studies by CNA show that DoD in-house monopolies spend far more to provide services than do organizations in competitive markets [18, 19, 20]. When these monopoly support activities are forced to compete with the private sector, costs drop by 30 percent. Table 2 shows the results from A-76 competitions. Whether in-house teams or private contractors won, significant savings resulted. The in-house teams, when faced with competition, reduce their costs, suggesting that there was nothing unique to their work requiring the additional resources. Yet, despite these savings, of those commercial activities currently done in-house, only 5 percent were kept in-house based on competitions. CNA estimates that competing all commercial activities would reduce support costs by an additional \$6 billion per year [15]. In addition, many support activities and jobs have been arbitrarily classified as "inherently governmental." The Navy has applied the strictest definition of "inherently governmental," and if the other Services applied the same criteria, billions more could be cut through competition.

Table 2. Summary of DoD's A-76 competitions

Function group	Competitions	Jobs competed	% savings
Social services	234	4,245	37%
Intermediate maintenance	162	15,731	33%
BOS multifunctional	28	5,042	26%
Installation services	645	23,077	31%
Storage & warehousing	107	4,263	31%
Audio visual	83	2,370	31%
Admin telephone	90	1,450	33%
Air transportation	10	1,890	31%
Telecommunications	27	1,007	46%
Administrative support	149	2,005	30%
Training	8	1,232	37%
Automated data processing	95	2,153	25%
Real property maintenance	320	10,715	29%
All other	173	5,491	29%
Total	2,131	80,671	31%

Increased efficiency from competition becomes very evident over time. Figure 2 illustrates these long-term gains. The graph shows the maintenance hours required to repair the TA-4J training aircraft in the Navy [21]. The maintenance was originally performed by military personnel in-house. The graph shows the direct maintenance hours needed for each flying hour of the aircraft. The average when the work was done in-house was slightly under 15 maintenance hours per flying hour. Initially, the contractor tried to use fewer hours but could not keep the aircraft ready. After increasing maintenance to the in-house levels, the contractors systematically started to cut them while maintaining or improving aircraft readiness. Equally important, there were two recompetitions, and a different firm won each time. Reengineering lessons transferred to the new contractors because most of the workers transferred to the new firm. By 1996, the number of required maintenance hours was one-third the in-house figure.

Figure 2. Direct maintenance hours per flight hour for TA-4J aircraft



DoD could have used competition to produce even greater savings. Because firms find it hard to reorganize and reengineer small activities, the smaller competitions produce the least savings. Yet, 40 percent of all A-76 competitions were for ten or fewer positions, and the savings from these competitions was 22 percent. For activities of more

than 200 positions, the average savings from competition was 35 percent.

There are some inequities in favor of in-house teams that reduce the size of the savings. Private teams must beat the in-house teams's bid by 10 percent to win the competition. This alone will cost DoD \$20 million annually in future competitions [22]. Public teams are also allowed to limit the overhead in their bid to 12 percent, a number well below the amount reported in the private sector where costs are more accurately recorded. And private firms must recover the cost of their participation in a competition in their bids. Public teams never have to recover these costs.

Another example of inefficiency that will not be corrected by small competition is in the repairing of spare parts. A recent LMI study [12] found that 34 percent of the components in depot maintenance, valued at \$1.8 billion, were not needed to meet any requirements, and \$2.9 billion worth of broken components, that *were* needed to meet requirements, were not being repaired. Clearly, the system is not making the best use of its resources.

Poor cost visibility

Service managers make decisions without knowing the full cost to their Service or DoD.

Often, DoD does not accurately measure the costs of its internally provided goods and services. That is, every day, Service managers make decisions on how to provide goods and services, whether to use a good or service, or how much to use, without knowing the full cost to their Service or DoD. This lack of cost visibility limits the military's ability to make good use of its resources.

This lack of cost visibility is the result of many problems. For example, the current Working Capital Funds (WCFs), previously known as the Defense Business Operations Fund (DBOF), have inherent flaws that distort costs. The WCFs are accounts used to transfer money to internal organizations providing services to other parts of DoD. Roughly \$69 billion will flow through this system in FY 1998 [23]. A major virtue of WCFs, and any customer reimbursable system, should be that they provide cost visibility to both customers and suppliers of services. However, in 1996, the DoD Inspector General's office stated it

could not audit DBOF because its financial systems continued “to lack a sound internal control structure” [24].

In addition to not meeting its objectives, WCFs/DBOF pricing has had some unintended harmful effects [25]. Prices are distorted and have created perverse incentives. Operational customers, responding to excessive charges, have reduced their demands, while the depots and other providers of services have difficulty cutting costs. Often, there are other in-house providers that are not paid by operating customers. In these cases, the operational units that can do so, shift work to those activities that appear “free” to them. For example, operating units and intermediate facilities are developing their own maintenance capabilities to avoid sending work to the reimbursable depots. In other cases, operational units are given no choice regarding in-house suppliers, thereby eliminating the intended efficiency incentives. Thus, a few captured customers must carry the full costs of the system.

WCFs have served one useful purpose that many mistakenly see as a problem. If rates were merely distorted, some internal customers would see rates below actual costs. But, the vast majority of customers see high rates. What the WCFs did was capture the full cost of operating a significant part of the support system, and that system is very expensive. This large cost is mistakenly attributed to poor pricing and not to the inefficiency of the system. After all, the WCFs revenues are fully spent and, more often than not, the entire system works at a loss. The collectively high revenues do not cover the collectively high costs.

The WCFs’ rules distort costs and destroy incentives to be responsive to operational units.

By their very nature, the WCFs’ rules distort costs and destroy incentives to be responsive to operational units [25]. The charges for services are based on centrally constructed “stabilized rates.” These stabilized rates, which are constructed two years before they are implemented, invariably deviate from the realized costs. This creates losses and profits that carry forward to the following year. The new rates are raised to cover losses and reduced to eliminate the profits. Thus, activities that could not attract enough customers are forced to raise rates and attract even fewer customers. Another way the system handles profits and losses is to cross-subsidize activities. The profit-

Activities that could not attract enough customers are forced to raise rates and attract even fewer customers.

Profit-making activities transfer funds to activities running losses and create perverse incentives.

makers transfer funds to the losers, creating perverse incentives. An activity that finds ways to reduce costs loses money to activities that don't reduce their costs. When there is no competitive pressure, the suppliers have little incentive for them to improve performance or lower costs.

The WCFs' distortions are but one example of this general problem of hidden and distorted costs. Many parts of DoD do not even attempt to make costs visible to those who use the services. For activities outside of the revolving funds, many costs, such as military personnel and facility amortization, are often excluded from budgets and constructed costs. That is, individual units and facilities do not pay for their military personnel or buildings. This exclusion tends to hide costs and provides an incentive for excessive demands and poor use of military personnel and facilities. Even if the local commands tried to consider these costs in making decisions, they would likely underestimate them. For example, recent analysis shows that the standard rates used for enlisted personnel are 40 percent below the actual cost of these personnel to DoD [26, 27, 28].

Another problem is that some costs are not allocated to the appropriate products and services. Overhead, in particular, is often improperly charged. Depending on the product or service provided, overhead can range from a small percent to a majority of the costs. It has traditionally been allocated in fairly simple ways that provide misleading costs when a facility provides many products or services.

Creating a "Revolution in Business Affairs"

The problems noted in the previous section are not the product of poor individual decisions. Rather, they reflect inherent process flaws and inefficiencies of very large, centrally controlled entities. A large part of the solution must be decentralization of control.

RBA requires greater authority at lower echelons of command...combined with better information and proper incentives.

Like the Revolution in Military Affairs, the Revolution in Business Affairs requires greater authority and responsibility at lower echelons of command. This decentralization must be combined with better information and proper incentives to instill an atmosphere of customer service and efficiency throughout the military support infrastructure.

Often, the suggested improvements appear small, but as in many areas of economics, small incentives can lead to large effects. The collective impact of all the improvements will make substantial changes to DoD. The merger of authority and responsibility will empower those performing the mission of the Department and introduce the needed responsiveness and flexibility.

In this section, we describe three aspects of the RBA: decentralization, better information, and proper incentives. We also address some of the concerns that have been raised regarding RBA.

Decentralized decision-making

An organization the size of DoD cannot be efficiently managed centrally.

An organization the size of DoD cannot be efficiently managed centrally. There is just too much information required for any central controlling authority. Although top leaders can set policies and possibly coerce change, the better way is to provide the correct incentives to a decentralized organization so that these changes occur naturally. Properly decentralized, all activities within an organization should have a continuous incentive to find new, innovative, and cost-effective means to fulfill their missions.

Decentralization means giving greater autonomy to operational and support activities. Operational units will need greater control over their budgetary resources, their physical assets, and their operating procedures and purchases, so that they can maximize performance and fulfill their mission in an efficient and cost-effective manner. Each of these aspects of decentralization is discussed below.

Greater control of budgeted resources

Currently, Congress, OSD, and the Services severely constrain the use of resources. Funds either never reach local or regional units, or the funds are fenced when they arrive. Funds that cannot be shifted into higher-valued uses lose some of their value. Managers suboptimize within each account. They invariably have shortages in some areas and cannot adjust resources to correct the problem. Other accounts may have surplus funds that end up being spent as if they were "free," because they cannot be spent elsewhere. To be efficient and adjust to changing needs, activities need to be able to trade off between their accounts. For example, an activity needs to be able to trade off between labor-saving equipment and manpower. To remedy this:

- Resources used by operational units should be in their budgets, to the greatest extent possible.
- Instead of being given an overly detailed budget, local commands should only be required to spend minimum amounts in various program categories and should have the discretion to spend the rest of their budgets on those areas that will maximize their mission effectiveness.

Lowering the fences on accounts will encourage activities to examine the life-cycle costs of facility investments. For example, no longer will maintenance costs be divorced from initial construction decisions, because they are from different accounts. Instead, local managers will look at all ways to provide and maintain facilities because the funds used to construct, operate, maintain, renovate, lease, and demolish them will come from the same local budget.

The situation regarding military personnel is similar. Individual units, both support and operational, do not pay for military personnel. If a

unit requests fewer billets, it cannot convert the savings into other resources, such as added training, repair funding, or quality-of-life improvements. People tend also to be too narrowly trained. The lack of cross-training adds to the unit's size and increases requirements for personnel support. The ability to trade off between manpower and training may result in fewer billets being filled by better and more broadly trained personnel. To remedy this:

- The unit and base budgets should include military personnel costs, and local units should be allowed to use those funds for other mission-related purposes.

Because military personnel are managed in a closed system—that is, all senior people come up through the ranks—the collective changes in personnel must come slowly. However, if operational and local support units start to make tradeoffs based on cost and contribution to mission, central personnel managers can change recruiting, training, rotation, and retention policies to reflect these decisions.

Activities need the ability to trade off between fiscal years.

In addition to trading off between accounts, activities also need the ability to trade off between fiscal years. For some appropriations, activities must spend their funds during the fiscal year. This can lead to a “use it or lose it” mindset at the end of each year. Activities try to spend the funds, even if they will not get the most for their money. Also, support activities tend to develop organizations and workloads with predictable expenditure rates, not organizations that adjust to changing operational requirements. To remedy this:

- Congress should allow activities to roll over some of their unspent funds into the next fiscal year. As a first step, Congress should allow all O&M money and military personnel funds to be spent over a three-year period.

Greater control over assets

Decentralization should extend to control over physical assets. Presently, activities regard their facilities as “free” because they cannot retain proceeds from sales or rent to other DoD activities. There is no incentive to transfer surplus assets and use the proceeds for readiness or quality-of-life improvements, because all the proceeds go to the

Treasury. Buildings remain in their current use as long as maintenance costs coming out of an individual installation's budget are less than the perceived value in that use. To remedy this:

- Congress and DoD should permit the Services to retain income from the sale of land and buildings, and the Services should allow local activities to retain some of those proceeds and use them to improve readiness of units, subject to notification of OSD.
- Activities which find they have excess physical assets in the short run, which cannot be easily disposed of, should be able to rent them out to other areas of the military and retain part of the proceeds to better perform their mission.

Care, however, must be taken to prevent abuse of authority to sell land and facilities. The assets need to be surplus and intended for disposal to the private sector. Military activities need to be discouraged from using their tax advantages and possible cross-subsidization of accounts to try to enter private lines of business. Proceeds must be split between the U.S. Treasury and local DoD activities so as to free up underused resources while preventing military expansions into competition with private enterprise.

Greater control over purchases and personnel procedures

Decentralization would allow for greater flexibility in operational procedures to choose where to purchase goods and services. Under the current system, units and installations are often forced to make purchases from in-house providers. This creates in-house monopolies with few economic incentives to best meet their customers' needs. To remedy this:

- Units and installations should be able to competitively choose the suppliers of all commercial support activities.

Permitting the private sector to provide what it does best allows the military to focus on winning wars and keeping the peace.

Such a decentralized system encourages managers at all levels of the infrastructure to rely on the private sector to the most efficient extent possible. Permitting the private sector to provide what it does best, will allow the military to focus on its core missions of winning wars and keeping the peace. This reliance on the private sector will result in a

leaner, more flexible defense infrastructure that will be more cost-effective and quicker to adjust to changing international conditions.

The mere act of decentralization forces in-house support activities into competition. Instead of being given protected budgets from the centralized authority, they must now compete for operational customers with the private sector. If they cannot successfully compete, their budgets will disappear. Such competitions foster changes in attitude toward customer service and efficiency throughout the system. In-house activities are forced to restructure their business practices and to look for ways to improve efficiency and better meet the needs of operational customers. In-house teams would only be allowed to compete if they have accounting systems that meet industry standards.

Local operational units and facilities should have greater flexibility in staffing their civilian workforces. Current personnel policies limit adjustments to the level and mix of people. To remedy this:

- The Services should have a true management-to-payroll with no constraints on the number of personnel.

Better information

A decentralized system alone will not ensure efficient decisions unless it has good information that is easily accessible to the relevant activities. Improving information access has two major components: better information technology and better accounting and information gathering.

Better information technology

Better information technology will be extremely important to increasing efficiency throughout the military. Appropriate inventory, cost, and manpower data will be critical to improving general business practices. DoD's need for better information systems was very apparent during the Persian Gulf War when at least 60 percent of 40,000 containers of food, clothing, and equipment shipped to the Army had to be opened on-site to have their contents relisted [29]. Improved access to data and computer technology will improve many direct activities, such as total asset visibility data to better allocate

inventories, scheduling data to better assign training school seats, real-time computer monitoring and control systems to streamline operations and reduce inventory and manpower requirements, and increased access to expertise through technologies such as telemedicine.

Better accounting and information gathering

If managers do not know the full costs of decisions, they are unlikely to put resources to their best use.

Computer technology can convey important management and cost information, but it cannot turn missing or distorted information into complete and accurate data. Under the current system, many critical costs are hidden or distorted. These distortions have real effects. If managers do not know the full costs of decisions, they are unlikely to put resources to their best use and inefficiencies will go undetected.

Where costs are systematically computed, overhead is often misapplied to the costs of the services provided. To remedy this:

- The Services should immediately implement activity-based costing (ABC) for both support and operational units.

Activity-based costing allocates overhead costs in organizations and facilities with multiple missions and services. Like any accounting system, ABC has its limits. It lets managers know what it has cost to provide services, not what it should cost or will cost at some future time. That always requires additional analysis. ABC will provide a more realistic approach to linking overhead to the products and services of the organization [30].

DoD needs to fix its Working Capital Funds and then expand their use. WCF is the way costs are made visible, and the system is broken. Rates do not reflect true costs to DoD and the Services [25]. To remedy this:

- Each facility should become its own cost center, with no cross-subsidization.
- Some changes to the stabilized rates should be allowed during the year. One change of no more than 20 percent per year should bring the rates closer to current costs and not disrupt operational units.

- If losses remain, they should not be carried into the following year's rates. To cover the loss, charge an entry fee to all operational units that use the activity. This way, current marginal costs determine usage, and the entry fee covers the losses. The service provider should also develop a plan to bring down costs.
- Inefficient in-house providers should be allowed to go out of business.

With these corrections, the Services should extend their reimbursable system so that all costs are visible to operational customers. Most of the resources for training and, with the exception of the Navy, in-house technical work is given directly to in-house providers with no cost visibility to the units and organizations supported. To remedy this:

- All support should be on a reimbursable basis. As a start, all the Services should bring technical centers and training into the WCF.

Money is only one cost that must be considered. Under the current system, the support infrastructure misses what may be a more important cost: time. For example, the logistics system, at best, sees the cost of repair or procurement. However, it misses the cost of delays and nonresponsiveness. The military compensates for delays by increasing inventories in the pipelines. The costs of these additional items are never captured in the cost of internal providers. Not only does this add to the costs, it sets up a system that is difficult to adjust when operations increase. To remedy this:

- Service providers should receive reimbursements on delivery of services to operational units.

That is, supply and maintenance activities would be paid when a replacement part reaches its final destination. They should not be paid for inductions, repairs, or items put on the shelf. They should be paid when a deficiency is corrected in the operational force. The support system would then have an incentive to deliver items quickly.

Similar problems exist regarding military personnel. We have already argued to include them in local budgets, but these budgets must cap-

ture the full cost to the Services of the personnel. Military manpower is one of the largest components of DoD's budget, accounting for roughly 27 percent of expenditures [1]. That includes pay, allowances, permanent moves, and retirement. It does not include many other costs, such as family housing, barracks, appropriated MWR costs, and personnel and payroll processing provided by civilians. Yet, individual units, both support and operational, see manpower as free. Because they don't see these costs, local activities have an incentive to request as much manpower as possible.

For RBA to succeed, these prices must be corrected. Managers at all levels must be able to see the true monetary, manpower, and time costs of the system. Gathering such comprehensive data will require a coordinated effort across many activities. Although some data definitions and gathering procedures will require standardization, activities should not find these overly burdensome, as long as the data are relevant to their missions and to actions they could take under RBA reforms.

Proper incentives to innovate

Decentralized authority and good information are not enough to ensure cost-efficiency. Activities must have the proper incentives to satisfy their customer needs in a cost-effective way. This customer orientation will be critical to the success of the RBA.

The collective impact of the previous recommendations will be to provide incentives for units to make the best use of defense resources and personnel. It will force support activities to compete for their customers. By giving operational units greater control over resources and allowing them to choose where to purchase goods and services, RBA will require support activities adopt a greater customer service orientation. These activities will either satisfy the needs of operational customers, or they will shrink as they lose workload to other in-house activities or to private firms.

Support activities will also need incentives to innovate. Too often, these activities have few incentives to improve business practices and cut costs. At present, if an activity succeeds in reducing its costs, it can

At present, if an activity succeeds in reducing costs, it can expect to have its budget cut, sometimes before any savings are realized.

expect to have its budget cut, sometimes before any savings are realized. This must be changed. To remedy this:

- Activities that successfully innovate should be permitted to retain some of their savings.

Eventually, most of the savings will be reprogrammed to other priorities; otherwise slush funds and other undesirable outcomes might result. However, taking all of the money at once destroys much of the incentive to innovate [31].

To further stimulate innovation, the Services could establish a fund that would provide seed money for promising innovations.

Expected results of RBA reforms

The Revolution in Business Affairs is not designed to impose specific solutions on the Services. For example, it does not specify how much to cut people and facilities. It merely recognizes that the full cost of people and facilities is hidden and ways to improve the use of these resources are constantly blocked. The goal is to change the rules that lead to using too many people and facilities. RBA is designed to empower operating units and support activities and let them decide how to most efficiently perform their missions. The RBA does not restrict outcomes, but opens up a wider range of possibilities. It will evolve into a more efficient and flexible support structure.

As this process occurs, we expect that the RBA will lead to beneficial results, including:

- Increased competition
- Greater customer orientation
- Greater reliance on the private sector

In this section, we discuss these expected results and some of the concerns that have been raised about the RBA.

Increased competition

The Revolution in Business Affairs will break in-house monopolies. Operating units will not be forced to choose the in-house supplier, and will not be locked into inefficiency and nonresponsiveness.

The support activities will have to radically alter the way they do business. Instead of receiving protected budgets from the centralized authority, they will have to compete for operational customers with the private sector. If they cannot compete successfully, their budgets will disappear. Extrapolating from the results of the A-76 competi-

tions, this added competition should reduce the costs of current in-house monopoly support activities by about 30 percent.

Greater customer orientation

The increased competition will force many changes on in-house support activities. One of the most important will be a greater customer orientation. To attract business, in-house support activities will have to look for ways to better meet the needs of their operational customers. This should produce a more dynamic and responsive support infrastructure.

Greater reliance on the private sector

The increased competition for support activities will probably result in a greater reliance on the private sector. Three reasons for this are:

- Firm specialization
- Fewer private sector restrictions
- Better diversification of risk.

Firm specialization

DoD is in the business of winning wars and keeping the peace. It should not be in secondary businesses, such as housing, social services, base fire protection, etc. There are other firms that specialize in these services, and they are probably more efficient providers. Given the opportunity to compete, these providers would probably win many of the contracts. This would permit the Services to concentrate on their most important functions.

Fewer private sector restrictions

Even if the Revolution in Business Affairs is fully implemented, there will always be more restrictions on government activities than on private sector activities. Civil service, contracting, and legal restrictions impose added costs and give a price advantage to private sector pro-

viders. By outsourcing support activities, DoD will achieve these savings.

Better diversification of risk

Diversification of risk is an important, yet often overlooked, advantage of private sector provision of support activities. Joint Vision 2010 [8] foresees a very uncertain world: "Accelerating rates of change will make the future environment more unpredictable and less stable, presenting our Armed Forces with a wide range of plausible futures." Such uncertainty encompasses financial risks. Not knowing the types of threats to be faced means that some of our current infrastructure investments will prove very valuable in the future, while others will have little value to our forces. It is here that the private sector has great advantages over the military.

For those infrastructure investments that turn out to have little military value, it is far easier for the private sector to convert these facilities to civilian uses. Historically, it has been very hard for the military to sell excess resources and retain the proceeds for other defense-related uses. During the Base Relocation and Closure (BRAC) process, most of the savings came from reduced operating costs for unneeded facilities; very little was generated from the sale of the facilities themselves. Defense dollars used to construct unneeded support facilities essentially can never be fully recovered.

The private sector, on the other hand, is under no such constraints. Private firms can sell facilities or enter civilian-oriented lines of business, and recoup much of their investment. Having the private sector own the facilities, where feasible, essentially allows for the dual-use of the infrastructure.

This is very different from the dual-use of facilities that remain within DoD. In those cases, DoD expands its role in real estate management, facility management, and support services. DoD is, in a sense, diversifying its support structure into nondefense work. The only way that it could attract private firms to dual-use is to make use of the tax advantage in ways not originally intended or shift overhead costs onto in-house users to reduce the apparent cost to outsiders.

When government owns and operates infrastructure in-house, there are strong pressures to use it regardless of whether it meets the military's needs in a cost-effective way.

In addition, when government owns and operates infrastructure in-house, there are strong pressures to use it regardless of whether it meets the military's needs in a cost-effective way. These pressures can come from outside DoD, from local managers of the infrastructure, or from the workforce. Uncertain and changing requirements demand the ability to change purchases of goods and services and their corresponding suppliers. It is better to retain such flexibility by maximizing use of the private sector instead of investing in new DoD infrastructure. Less burdened by regulations than in-house activities, private firms can more easily adapt to changing military needs and can do so more efficiently.

Concerns about the RBA

Possible over-reliance on private sector

There is an erroneous impression that DoD-owned support activities supplement the private sector and can serve as a cushion in times of emergency. In reality, these activities displace private sector capacity as industry rightsizes itself to meet market demand. This can most readily be seen in terms of ancillary support activities such as housing or child care. If the military performs these activities on-base, private industry will adjust to meet the reduced demand. Nobody is willing to build new houses without potential residents.³ Nobody will provide child care facilities if there are no customers. Even the prospect that DoD could build its own capabilities discourages private entry into the area. Thus, the in-house activities do not provide additional overall capacity. Instead, the military pays a premium to displace private sector capacity. This premium is no longer affordable.

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3. Reference [32] discusses government intervention in housing markets. It presents evidence that HUD-subsidized housing starts decrease private housing starts. A precisely analogous situation exists with the military. When the military builds base housing, it ultimately causes a corresponding decrease in available private housing.

Long-term investments

The proposed restructuring of DoD business practices has raised concerns about long-term incentives. Will such a decentralized system provide the long-term investments in personnel and equipment to sustain future readiness? The short answer is it should. With simple incentives, rather than constraints on the entire system, it can produce any level of investment desired. More importantly, there is little to support the argument that the current system is making the appropriate long-term investments. It is a frequent complaint that DoD's infrastructure is not being maintained and is severely deteriorating. That inadequate investment may also carry over to personnel.

With RBA, if DoD wants more long-term investment, there is a straightforward solution: It can subsidize the prices of certain investments, such as training. This is precisely akin to how the federal government uses tax incentives to achieve certain socioeconomic goals. The DoD subsidies should not be in the form of requirements, but rather in reduced prices to activities that choose to make specific investments. In this way, the true costs will be transparent so that DoD decision-makers can accurately weigh the costs and benefits of the investments.

Some functions, such as basic research and development, may have benefits that cut across many different activities. These functions may require some centralization to achieve appropriate investment levels.

Conclusion

It will not be easy to implement these changes. Congress, OSD, and the Services must jointly recognize the need for change and be willing to make it. They must commit to an entire new process, not a subset of the component parts. We will not build an engine for change with half the parts.

Congress should set up a commission to develop comprehensive changes to defense business processes. Working with OSD and the Services, the commission would present a unified package of reforms to Congress. These reforms in their entirety would become the Revolution in Business Affairs.

A determined business reform commission could reach consensus relatively quickly. This is because the goal is not to work within a smaller budget, with fewer resources available to all, but to improve performance within the current budget. This will shift resources from DoD's support budgets to its modernization budgets. Use of private support contractors will increase, and some support work now done by military personnel will be done by contractors or government civilians.

The geographical distribution of expenditures will be fairly comparable [33]. For example, the ten states with the most infrastructure expenditures receive 59 percent of those funds; the ten states with the most acquisition funds receive 65 percent. The ten most populated states, with 54 percent of the population, receive 42 percent of the infrastructure expenditures and 47 percent of the acquisition expenditures.⁴ For every group that resists change, there should be a comparable, if not larger, group supporting the change, and given the

4. These data are calculated from [33] which contains the amounts of total compensation and prime contract awards spent by the military in each state.

improved use of tax dollars, those supporting government reform should also endorse the change.

The reality is that even good policies face resistance, and the Revolution in Business Affairs has an especially broad scope. However, Congress has shown that it is willing to accept a package of reforms in its entirety, and that may be necessary here. As the military transforms itself for the 21st century, there is an important opportunity for major reform that should not be missed. For the Revolution in Business Affairs, missed opportunities should not be measured just in dollars misspent, but in effectiveness not achieved.

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