

**TOWARD A VALID COMPARISON OF
CONTRACTOR AND GOVERNMENT COSTS**

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Executive Summary

In this report, we show that the prevalent methods for comparing contractor employees with government employees, in terms of overall cost, are generally inadequate. Too often, government labor rates are directly compared with the cost of procuring a service from a contractor. Needless to say, such comparisons fail to account for the full range of costs. Part of the problem is that a comprehensive, standardized methodology to compare costs has yet to be articulated. We contend that a meaningful analysis must occur in a multi-dimensional space that includes the following factors: direct costs, indirect costs (i.e., overhead), the military or government civilian rotation base, contractor agility and scalability, and the benefits from competition. At present, however, the make-or-buy decision that leaders regularly face is based, it seems, on little more than intuition or preconceived bias.

Over much of the 20th century, it was widely assumed that if the government needed something, it should acquire it internally—often without consideration for whether or not the task was “inherently governmental.” Over time, this has led to the buildup of large government bureaucracies, with increasing numbers of government employees. In the 1980s, this assumption began to attract a fair number of critics from both inside and outside of the government. After the fall of the Soviet Union, the federal government began to reduce the military force structure and cut defense spending. As a result, the government acquisition workforce (civilian and military) saw a significant reduction in its number of employees.

Following the September 11, 2001, terrorist attacks, the defense budget was increased significantly. Military operations began almost immediately in Afghanistan and, within two years, in Iraq. This rapid mobilization required significant contractor support. Contractors have provided (and continue to provide) a variety of services, many of which are essential to military operations, both in peacetime and in times of conflict. Contractors work within military services and various defense agencies, and in enterprise-wide capacities, providing skilled IT logistics, systems analysis, product support, and direct support to battlefield or other contingency operations.

Government contracting began to attract increased attention and scrutiny, due, in part, to its rapid growth. Scandals involving contractors made headlines, leading some government officials to believe that the pendulum had swung too far, that there were too many contractors, and that contracting with private firms needed to be reined in. President Obama campaigned to “reform federal contracting and reduce the number of contractors” (Obama, 2007, p. 9). The administration sought to bolster the government workforce by converting contractor positions into government jobs, a process known as insourcing, and estimated that this would save up to \$44 billion annually (Department of Defense Appropriations Act, 2010).

A year after President Obama launched this initiative, Defense Secretary Robert Gates asserted that insourcing was not producing the anticipated cost savings (Censer, 2011). Apparently, the increase in government hires failed to offset the cost of contracts being awarded. He concluded that directly reducing the number and value of contractor awards—as opposed to increasing the government workforce—would be a more effective approach to reducing spending.

What constitutes the right mix of contractor and government employees often hinges on individual views on the proper role of the government. While the use of private sector providers has expanded and contracted as a result of political forces, there is no doubt that some functions are inherently governmental, and that these tasks must be performed by government employees. Still, it appears that insourcing is sometimes promoted for its own sake, while the underlying rationale (be it cost savings or inherently governmental status) is misconstrued or misrepresented. As mentioned, the recent government policies aimed explicitly at increasing the government workforce accomplished little in the way of reducing costs and, as described below, may significantly increase long-term costs.

A complete analysis of costs is needed to enable accurate comparisons between private- and public-sector service providers. Clearly, direct costs must be considered. These are traditionally regarded as the costs of labor and materials directly associated with the product or service that is provided. Though this may seem straightforward, there is considerable debate as to which sector’s employees are paid higher salaries. There is a long-standing contention that federal employees earn less than their private sector counterparts, an assertion that has come under fire in the wake of the 2008 financial crisis. The Federal Salary Council and the Office of Personnel

Management maintain that federal employees earn, on average, 24% less than their private sector counterparts (Risher, 2010). However, several outside studies find otherwise. A recent *USA Today* analysis revealed that federal workers earned an average salary (excluding benefits) of \$67,691 in 2008 versus \$60,046 for their private sector counterparts (Cauchon, 2010a).

Similarly, in two of its reports, the Heritage Foundation found that federal employees received, on average, a 12—22% wage premium over their comparably skilled private sector counterparts (Sherk & Richwine, 2010). More contentious still is the comparison of total compensation (wages/salaries and benefits) between the two groups. Again, a lack of good data facilitates speculation and conjecture. And because such a comparison necessarily includes assumptions with regard to long-term benefits, studies often provide very different conclusions.

Indirect costs, or overhead, should also be incorporated into a cost comparison methodology. Indirect costs include shared costs, fixed costs, short-term fixed costs (which are variable in the long run), and variable costs. Accordingly, accounting techniques must be quite sophisticated if they are to fully capture these types of indirect costs. Presently, however, these are not adequately accounted for in the cost comparison methodologies used by government agencies.

Another factor, the rotation base, carries cost implications. Calculating the cost for deployed military and government civilian personnel can be complex. For instance, military personnel are not operationally deployed indefinitely, even during wartime. Accordingly, for each deployed position, there must be multiple occupants so that as personnel return home, more are ready to take their place. Thus, the cost of sustaining one position is a function of deployment intervals, in addition to the position's respective salary. Any comparison between the yearly compensation of a contractor and that of a military serviceman must take this factor into account.

In addition, contracting for services enables the DoD to leverage the benefits of competition, which include, most significantly, greater efficiency, more innovation, higher quality, and better performance. The extent to which these benefits are realized depends on how requirements are written, how solicitations are made, how contractors are selected, and how contracts are structured. Flexible contracting that creates points of entry for new firms spurs competition, leading to lower costs in the long run.

Workforce agility is yet another important consideration. Contractors can be mobilized quickly, without the commitment or expense of sustaining a large, long-term staff. Military personnel and federal civil servants, on the other hand, occupy full-time, salaried positions. Moreover, contractors often specialize in a particular service and provide it to multiple entities on a constant basis. In effect, relying on contractors allows the government to “shop” for specific skill sets. From vehicle repair technicians, to construction workers, to food preparers, contractors are often (though not always) better suited to the provision of certain services, in that they have acquired the skills that come with experience. Their military counterparts, on the other hand, may not be as experienced or may not perform these tasks on a regular basis.

Because contractors do not need to make long-term commitments to their employees, they are better able to surge during times of conflict, natural disaster, or other contingencies. This advantage, which we term “scalability,” also has cost implications in that once the conflict has ended, the workforce can be downsized quickly. In addition, unlike government personnel, contractors are not bound by deployment or salary constraints. A contractor can require its employees to deploy for long periods—and pay them accordingly. As a result, contractors do not need to train as many workers.

Flexibility with regard to pay and deployment duration is an advantageous feature of contracting. However, flexibility in contracting is not the same as contract flexibility. If mission objectives or conditions change, as is often the case during conflict, the terms of a contract may need to be modified. Military personnel and, to a lesser extent, federal civilians, are capable and, in many cases, trained, to adapt to changing environments effectively and efficiently, and without procedural delay. Certainly, there are cost implications here that have yet to be fully articulated.

The government has relied largely on two methodologies in performing cost comparisons: the A-76 Costing Manual and Directive-Type Memorandum (DTM) 09-007. Both of these approaches fall short of accounting for all of the aforementioned costs associated with service provision. For instance, the A-76 Manual uses a blanket 12% overhead rate for all government functions and fails to account for the true cost of government capital. However, many consider it far superior to the DTM, which, it must be said, is not a true methodology. Rather, the DTM provides lists of considerations for analysts, but fails to offer a structured, uniform process to quantify costs.

Over the years, reports published by various government agencies including the Congressional Budget Office (CBO) and the Government Accountability Office (GAO) have highlighted the inadequacies of the A-76 Costing Manual and the DTM by considering elements that are not included in either methodology, including, most notably, the rotation base. With regard to providing security services in Iraq, the CBO found that personal security contractors (PSCs) and State Department personnel cost roughly the same (CBO, 2008); this is contrary to earlier findings published by economists Joseph Stiglitz and Linda Bilmes (Bilmes & Stiglitz, 2008) who asserted that the cost of contractors was considerably higher. A similar study by the GAO revealed that for three of four task orders, using State Department personnel to provide security in Iraq would have led to higher costs to the government (GAO, 2010). For one task order, State Department costs would have surpassed \$850 million (compared to the \$78 million that was actually paid to a PSC). Finally, in a report published by the CBO examining the cost of logistics support to deployed military forces, CBO analysis revealed that Army-provided logistics support would cost about 90% more than contractor provision of the same services (CBO, 2005). Like the A-76 and the DTM, these reports do not adequately account for overhead costs or the cost benefits associated with contractor agility. Thus, while these reports reveal the cost benefits associated with the use of contractors, they nevertheless underestimate them.

The DoD comprises a vast array of interrelated agencies and functions and, as such, lacks an equivalent in the private sector with which one might compare cost allocation methods. From an accounting perspective, one might visualize the DoD as a hierarchy of cost pools. The pools at the bottom perform services for which cost drivers can be easily identified. The cost pools at the top of the hierarchy, however, consist of shared costs that must be assigned to one or more cost objects (e.g., products, services, customers, or other cost pools). The question, then, is how should these costs be assigned? More discussion and future research are clearly needed to arrive at the answer.

It is generally believed that if government overhead was more realistically estimated, then service provision could be managed more efficiently and effectively, which would save taxpayers money. Certainly, achieving greater visibility of costs enhances decision-making. But comprehensive costing is not without its challenges. First and foremost, it is generally time consuming and costly. Secondly, it is not always possible to accurately allocate overhead costs.

For instance, it is often assumed that if a service is transitioned to an external service provider, then the associated government overhead will be eliminated. But this is not always the case for a variety of reasons. For example, the contracted function may have relied on resources, administrative or otherwise, that cannot be proportionally reduced (e.g., government management of contractors). Some costs are fixed in the short term; hence, several activities may need to be contracted out in order to trigger a real reduction in overhead.

For this reason, the government should make use of both a marginal and a comprehensive costing approach. This will enable comparisons between an activity's total overhead and the overhead that, once the activity is contracted out, will be eliminated. The gulf that emerges will, in all likelihood, highlight the need for new reforms in the area of overhead management. This might entail new policies that enhance workforce agility and flexibility within the public sector.

Unfortunately, trends are moving in the opposite direction. The government must reform both its costing approach and its overhead management strategy. The time to act is now. Our findings and recommendations are listed below:

Findings

- Current government methodology fails to account for the true costs of service provision. More accurate visibility of costs would enable leaders to make better informed decisions and allow analysts to more accurately perform comparisons between the public and private service providers.
- A complete cost comparison methodology must account for direct costs, indirect costs, and any required rotation base. The A-76 Costing Manual and DTM do not adequately account for these factors. Recent government reports used a different approach, accounting for direct costs, some indirect costs, and the rotation base. However, overhead is largely ignored, as are the cost advantages associated with contractor agility. Additionally, qualitative factors such as workforce agility and scalability, contract flexibility, and benefits from competition need also be considered.

- Some indirect costs are not included in cost comparisons, presumably because they are too difficult to quantify, or their allocation to lower cost pools appears arbitrary. Because costing procedures necessarily involve assumptions and, to some degree, subjective allocation, there is no perfect solution. Nevertheless, more research and discussion are needed to determine which costs should be allocated, and how this allocation should be performed. Some factors, however, including traceable overhead, the rotation base, and workforce agility have clear cost implications; yet, no one methodology accounts for these factors with adequate specificity.
- With regard to costing techniques, uniformity is important. Even when agencies use the same methodology, the calculations can differ significantly because detailed instructions are often lacking, or agencies have significant autonomy in deciding which costs to include. Without a uniform methodology, it is difficult to capture the trends associated with the costs of public and private sector service provision, as well as to compare costs for similar services in different organizations.
- Accounting for all of an agency's overhead costs is important. However, unless overhead is reduced if and when a different provider is chosen, the savings may be less than anticipated.

Recommendations

- Agencies should adopt a comprehensive costing methodology (e.g., Activity-Based Costing [ABC]). A comprehensive methodology will allow for more accurate cost comparisons, which, in turn, will lead to better informed sourcing decisions. The approach should be standardized across the DoD.
- Agencies should also perform a marginal costing analysis. This will enable a comparison between total overhead (captured via the comprehensive methodology) and the potential overhead eliminated as a result of changing to an external service provider (captured via the marginal approach).

- Agencies should make sourcing decisions based on the marginal cost approach. At the same time, the DoD should implement overhead management reforms that enhance flexibility within its workforce so that overhead can be scaled down readily as activities are changed to external service providers. Using a comprehensive and a marginal approach, and then comparing the two figures, will allow the DoD to gauge the efficacy of these reforms.
- In the interim, when making sourcing decisions, the DoD should use the A-76 Costing Manual methodology, as it is more comprehensive than the DTM. To improve cost comparisons, analysts should make an effort to calculate their agencies' actual overhead costs, rather than rely on the A-76 Costing Manual's 12% blanket rate.
- When appropriate, agencies should include in their methodology the costs associated with the rotation base. In addition, they should also consider factors that are more qualitative, but nonetheless carry cost implications, including contractor agility and the benefits from competition.

Sourcing decisions should not be made with reference to cost alone. Some tasks are inherently governmental or, for whatever reason, are best performed by federal civilian or military employees. Indeed, designing metrics that measure contractor and government performance is essential. But in many instances, the choice of service provider, be it the public or private sector, is of little consequence—with one exception: cost. Unfortunately, ascertaining this single variable presents a tremendous challenge. Many government agencies cannot identify all of their costs, or, in any case, fail to account for them in formulating their bids. Moreover, it is unclear if an agency's total overhead cost should even be included, especially if it remains constant in response to an activity's outsourcing. One thing, however, is certain: a new approach is needed.

I. Introduction

According to a recent *New York Times* (NYT) article titled “Government pays more in contracts, study finds” (Nixon, 2011), the United States government is needlessly spending billions of extra dollars hiring contractors to carry out services that could be performed more cheaply in house, by government employees. The article discusses the findings of a nonprofit watchdog group, the Project on Government Oversight (POGO), whose “fresh methodology” reveals that most of the savings associated with the use of contractors is “illusory” (Nixon, 2011, p. 1). In some cases, POGO asserts, agencies are paying contractor employees “twice or even five times the rate” (p. 1) that they would a federal worker. Media outlets throughout the United States publicized the POGO findings; the headlines ranged from the rather mundane NYT title to *Government Executive*’s (Clark, 2011) more critical “Contracting services fails to save agencies money, report says” to the *Daily Kos*’ (Newman, 2011) sensational, “How the Government wastes billions on over-priced contractors.”

To be sure, headlines of this sort appear all too often. But are they accurate? A tension exists between advocates of federal employees and those of the private sector, with each side claiming that one group provides services more effectively and efficiently than the other. But while there are volumes of data, there is a dearth of information. The make-or-buy decision that leaders regularly face, it seems, is based on little more than instinct or a preconceived bias.

The debate on relative cost effectiveness of contractor versus civil servant labor has raged for decades. Indeed, one of the reasons both sides can argue so vociferously is that there is incomplete and imperfect data upon which to base an argument. Because no comprehensive methodology exists, the data can be used to support virtually any perspective.

When it comes to make-or-buy decisions, leaders must be careful, we argue, to compare apples to apples in examining the costs. For instance, the assertion that government agencies are paying contractor employees more than they pay federal workers, betrays a lack of understanding of the issues. Indeed, there exist many comparisons of federal and contractor salaries; however, rarely is it appropriate to directly compare government labor rates with the cost of procuring a service from a contractor. This is only one piece of a complex puzzle. Rather, to make a valid

comparison, all of the associated indirect and additional costs must be included. We propose a comprehensive set of parameters, grounded in academic research, which, we believe, more fully captures the costs associated with the use of contractors and government employees, and, thereby, allows for a more meaningful comparison.

There are other considerations. For example, contractors are able to provide flexibility and quick availability of expertise to government programs, without the commitment or expense of sustaining a large, long-term staff. In addition, when using contractors, it is easier to leverage the benefits of competition among firms to enable innovation and achieve cost savings. These are a couple of the issues that we explore in this report—issues that must be factored into any methodology that purports to be objective and relevant. The comparison of contractors and government employees, we argue, requires a multi-dimensional analysis.

Report Roadmap

In this report, we show that existing rubrics for comparing contractor employees with government workers, in terms of overall cost, are inadequate. We begin in Part II by framing this debate within its historical and political context. We show that declining defense budgets, past and present, and the need to make significant cuts have catalyzed arguments on both sides of the debate—a debate that has assumed an increasingly political, as opposed to empirical, basis. In Part III, we examine the factors that must be part of a comprehensive methodology. These factors include direct costs, indirect costs, the rotation base, the benefits from competition, and workforce agility and scalability. In Part IV, we examine two methodologies used by the government to make sourcing decisions and discuss their strengths and weaknesses. We then survey recent reports by government agencies in which different approaches are used. In Part V, we advocate a new approach that includes a comprehensive costing methodology in addition to overhead management reform. In Part VI, we provide our recommendations and concluding remarks.

II. Background

America's economic system is based on capitalism and free enterprise, and it has been a long-standing federal policy that the government will not provide services for its own use that are available in the private sector.¹ And yet, despite official pronouncements, over much of the 20th century it was widely assumed that if the government needed something (be it a product or service), the the government should acquire it internally, often without consideration for whether or not the task was "inherently governmental." Over time, this practice has led to the buildup of large government bureaucracies, with increasing numbers of government employees.

In the 1980s this assumption began to attract a fair number of critics from both inside and outside of the government, particularly with regard to the DoD. Why, for instance, was cutting grass on military bases or managing the visiting officers' quarters a governmental function? The DoD's outsourcing of services such as these picked up considerably in the 1980s, as the Reagan administration encouraged public/private competitions in an effort to realize an estimated 25—50% savings for non-inherently governmental functions. Thus began a significant shift toward a contractor workforce ("U.S. Military Told," 1982). This is not to say that contractors played no role in supporting DoD initiatives in earlier decades, but that their roles were small and generally limited to contingency operations. For instance, private companies supported military forces in both the Korean and Vietnam wars, maintaining aircraft and other equipment.

Trends in Workforce Composition

The fall of the Soviet Union in 1991 led to a brief period of military retrenchment, as the nation demanded to reap the benefits of the so-called "peace dividend." This sparked a paradigm shift in how the government, and in particular the DoD, acquired its products and services. The federal government began to reduce the military force structure and cut defense spending. As a result, the government workforce saw a significant reduction in its number of employees, paving

¹The Eisenhower administration's Budget Bulletin 55-4 (Bureau of the Budget, 1955), issued in January 1955, stated, "It is the general policy of the Federal Government that it will not start or carry on any commercial activity to provide a product or service for its own use if such a product or service can be procured from private enterprise through ordinary business channels."

the way for a marked transition whereby government employees were no longer seen as the “providers of services,” but, rather, the “managers of service providers.” President Bush, prompted by the policies of President Clinton, continued to expand private sector opportunities.

The national security environment changed dramatically as a result of the September 11, 2001, terrorist attacks. As part of the nation’s response, the defense budget was increased significantly. Military operations began almost immediately in Afghanistan and within two years in Iraq. This rapid mobilization required significant contractor support. Even after these military operations were well underway, the size of the government workforce was not increased. Over the course of the decade, contractors stepped in to fill the voids and ensure that missions were accomplished, leading to a further increase in the number of contracted service providers.

Government contracting began to attract increased attention and scrutiny due, in part, to its rapid growth. Shortly after the Iraq War began, KBR (formerly Kellogg, Brown & Root), a subsidiary of Halliburton, was awarded a no-bid, multi-billion dollar contract to restore oil field operations in Iraq (Dobbs, 2003). The DoD defended the contract award, asserting that KBR was “the only contractor that could satisfy the requirement for immediate execution of the plan” (U.S. Army Corps of Engineers, 2003, p. 1). Various hearings were conducted to investigate whether the government had violated management and acquisition regulations. Against this backdrop, another contractor scandal broke out. In 2007 Blackwater, a large private security firm contracted by the State Department, which was already a target of criticism for overstepping its boundaries, was given government immunity from prosecution for the killing of 17 Iraqi civilians. Shortly thereafter, a report by the House Committee on Oversight and Government Reform alleged that Blackwater operatives were paid six times more than the cost of an equivalent U.S. soldier (U.S. House of Representatives, 2007). Meanwhile, the American public, growing weary of the nation’s prolonged engagement in two wars, the associated costs, and the rising national debt, showed little tolerance for contractor or government malfeasance. These scandals gave rise to the widespread perception of an improper interconnectedness between contractors and the government.

Given these circumstances, government officials came to believe that the pendulum had swung too far, that there were too many contractors, and that contracting with private firms needed to be

reined in. President Obama (2007) campaigned to “reform federal contracting and reduce the number of contractors” (p. 1). In 2009, he issued a memorandum directing federal agencies to reform the contracting process, stating that contracting is “plagued by massive cost overruns, outright fraud, and the absence of oversight and accountability” (Obama, 2009, p. 1).

The administration sought to bolster the government workforce by converting contractor positions into government jobs, a process known as insourcing, and estimated that this would save up to \$44 billion annually (Department of Defense Appropriations Act, 2010). This prediction was echoed across the DoD, which, in assembling its 2011 budget, calculated a 30—40% savings for each insourced position (Soloway, 2009). Based on this calculation, the DoD made significant changes to its workforce composition. For instance, the Air Force assumed responsibility for C-17 program logistics integration, a service that was being provided by various contractors. It also decided to end its long-standing contract with Lockheed Martin for F-22 support services (Gouré, 2010b).

A year after President Obama launched this initiative, Defense Secretary Robert Gates) asserted that insourcing was not producing the anticipated cost savings (Brodsky, 2010c). Apparently, the cost of contracts being replaced failed to offset the cost of the government hires. He concluded that directly reducing the value of contractor awards—as opposed to increasing the government workforce—would be a more effective approach. Other leaders also began to reconsider the insourcing initiative. A provision in the 2011 Defense Authorization Bill, sponsored by Rep. James Langevin, D-RI, prevented the DoD from establishing “any arbitrary goals or targets to implement the insourcing initiative” (Brodsky, 2010a, p. 1). In a February 2011 directive, Secretary of the Army John McHugh wrote that “in an era of significantly constrained resources, the Army must approach the insourcing of functions currently performed by contract in a well-reasoned, analytically based and systemic manner” (p. 1). At the same time, however, a senior Pentagon official asserted that insourcing remains the government’s policy, even though it is not delivering the estimated savings (Erwin, 2010). He went on to say that reducing costs was never the primary purpose of insourcing; rather, it was to bring inherently governmental positions back into the government (Erwin, 2010).

Needless to say, insourcing has lost some its initial momentum, but the ideological challenge over what constitutes the ideal division of work between contractors and government employees has yet to be resolved, and the question of which tasks should be reserved specifically for the government remains contentious. The trends in workforce composition outlined thus far involve more than simple increases and decreases in the number of contractors or government workers. Within the DoD, determining the right mix of personnel is further complicated by the fact that there are two distinct groups of government employees: federal civilian workers and uniformed military personnel. As the administration has recently learned, it is not merely a matter of arithmetic, whereby an increase in government hires prompts a corresponding reduction in the number of contractors; often, there is not a one-to-one relationship.

The Role of Contractors

Contractors provide a variety of services within the DoD, many of which are essential to military operations, both in peacetime and in times of conflict. Contractors work within military services, various defense agencies, and in enterprise-wide capacities, providing a host of different services, including skilled IT logistics, systems analysis, product support, and direct support to battlefield or other contingency operations. Of course, these services are always performed under the management of government workers. These services include functions outlined below.

- Support for information technology

This is a broad category which includes everything from supporting or directing systems engineering, designing system architectures, updating and running computer systems, and providing information security. Contractors may also be used to provide definition of program scope, problem analysis, requirements analysis, or advice as to logical system design.

- Support for facilities and installations

This category includes routine maintenance of facilities, vehicle and equipment repair, as well as administrative functions, such as processing travel vouchers and personnel actions and the associated support functions.

- Support for weapons programs

The DoD uses contractors to support its weapons programs. The greatest number of these contractors provides system and sub-system engineering services and technical services. In addition, contractors provide operations services, maintenance and repair services, program management support, business functions, and administrative support to these programs.

- Support for logistics

Throughout the government, but especially within the DoD, contractors and government personnel—both civilian and military—work collaboratively in a blended workplace environment. In many instances, a program office oversees the work of numerous private contractors and integrates their products and services. Increasingly, government contracts with private firms call for the “total life cycle support” of systems. Many contracts for services also entail the provision of products and/or parts. Moreover, the line between goods and services is often blurred, especially with regard to information technology, where one firm is contracted to provide both system hardware and engineering or analysis services.

The DoD has increasingly embraced an approach known as performance based logistics (PBL), whereby a contractor offers long-term support and maintenance services for a specific system or platform. PBLs are described as integrated and affordable performance packages “designed to optimize system readiness” (Gouré, 2010b, p. 3). Rather than purchasing individual support services (e.g., parts, repairs, engineering) via multiple, separate transactions, PBL strives for specific outcomes, such as the seamless availability of functioning weapons systems, communication devices, or vehicles. Take, for example, the case of the High Mobility Artillery Rocket System (HIMARS). The Army awarded Lockheed Martin a PBL contract that required contractors to ensure a system readiness rate of 92% and a repair turnaround time in the field averaging five days (Gouré, 2010b). Lockheed Martin exceeded both of these objectives, achieving a 99% readiness rate and an average turnaround time of two days. These outcomes were

achieved through the use of a competitively awarded PBL contract; as such, the greater than anticipated performance levels did not result in higher costs to the government. To the contrary, the Army was able to reduce its reserve of HIMARS, as fewer were needed to replace those that went out of service (Gouré, 2010b). If the Army were to insource the various functions within this program, it would likely revert to a transactional approach to logistics focused on inputs, which, in turn, could have a negative impact on both the readiness rate and the turnaround time, and lead to greatly increased costs.

- Support for stability and reconstruction

Over the past decade, reliance on contractors to support stability and reconstruction efforts has increased dramatically. In Iraq and Afghanistan, contractors have worked to promote (1) a safe and secure environment, (2) the rule of law, (3) stable governance, (4) a sustainable economy, and (5) social well-being. Contractors have played a critical role in increasing host nation legitimacy, ownership, and, most significantly, internal capacity.

- Support to expeditionary military operations

Contractors are used in large numbers during times of conflict to mobilize the resources necessary to support theater operations. The breadth of these services is truly remarkable, though perhaps unsurprising given the resources that are needed to effectively conduct operations in a foreign environment. For instance, contractors have provided everything from field services (e.g., food, uniform exchange, laundry, showers) to equipment maintenance, religious support, disposal of explosives, music, and morale.

Between 2003 and 2007, U.S. agencies awarded \$85 billion in contracts for work in the Iraq theater (CBO, 2008). The number of contractors supporting operations in Iraq has been unprecedented. As of 2008, it was estimated that at least 190,000 contractors (including subcontractors) were working in U.S.-funded contracts, the majority of which were for logistics support, food, construction, and petroleum products. By 2008, the ratio of military personnel to contractor stood at one-to-one (CBO, 2008).

Efficiency gains through LOGCAP

Contracts for support during contingency operations are issued through the Army's Logistics Civil Augmentation Program (LOGCAP), which pre-plans for the outbreak of conflict, war, or other contingency operations. Contractors collaborate with the military branch to develop service provision plans, which go into effect in the event of conflict. The contractor provides details on how it will mobilize the necessary resources (supplies, personnel, subcontractors, vendors, etc.).

LOGCAP has proven superior to earlier contracting arrangements. By issuing an indefinite delivery / indefinite quantity (IDIQ) contract to multiple service providers, and then placing orders against the contract as the need for certain services arose, the Services were able to cut costs and improve efficiency. There was no service overlap because there were no firm-specific contracts. And by issuing multiple awards, the Services were able to sustain competition among the different firms, which has allowed the military to amass support for operations quickly and efficiently. In decades past, private firms were hired through the use of hundreds of unlinked logistics support contracts that were, for the most part, poorly administered, leading to markedly uneven performance. "Statements of Work" were missing or poorly defined, and the contracts themselves lacked clear requirements, which contributed to inadequate performance on the part of the contractor. The result was poor customer satisfaction and unnecessarily high costs.

Inherently Governmental Functions

What constitutes the "right mix" of contractor and government employees often hinges on one's views on the "proper role of government." While the use of private sector providers has expanded and contracted as a result of political forces, there is no doubt that some functions are inherently governmental, and that contractors, therefore, should be limited with regard to the services that they are permitted to provide. This notion is, in fact, codified in Subpart 7.5 of the Federal Acquisition Regulation (FAR, 2011), which states that "contracts shall not be used for the performance of inherently governmental functions." Below are some of the items included in Subpart 7.5:

- The command of military forces, especially the leadership of military personnel who are members of the combat, combat support, or combat service support role;
- The conduct of foreign relations and the determination of foreign policy;
- The determination of federal program priorities for budget requests;

- The direction and control of federal employees;
- Collection of fees, fines, penalties, costs, or other charges from visitors to or patrons of mess halls, post or base exchange concessions, national parks, and similar entities or activities, or from other persons, where the amount to be collected is easily calculated;
- Determining what supplies or services are to be acquired by the government; and
- Determining whether contract costs are reasonable, allocable, and allowable.

Subpart 7.5 also includes a list of functions which are not inherently governmental, “but may approach being in that category because of the nature of the function, the manner in which the contractor performs the contract, or the manner in which the Government administers contractor performance.” Many of these services “involve or relate to” those which are inherently governmental. Some of these items are stated below.

- Services that involve or relate to budget preparation, including workload modeling, fact finding, efficiency studies, and should-cost analyses, etc
- Services that involve or relate to analyses, feasibility studies, and strategy options to be used by agency personnel in developing policy
- Services that involve or relate to the development of regulations
- Contractors providing assistance in the development of statements of work
- Contractors providing information regarding agency policies or regulations, such as attending conferences on behalf of an agency, conducting community relations campaigns, or conducting agency training courses

Whether a service will be provided by civil servants or private firms is often a matter of subjective interpretation of the above items. Undoubtedly, then, these items have contributed to much of the ambiguity in deciding what constitutes the “right mix” of government and contractor employees. Moreover, advocates of government employees, who believe that contractors are less cost effective, can leverage the ambiguity of the federal regulations in voicing their opinions. For instance, in his memorandum, President Obama (2010a) instructed officials to avoid an overreliance on contractors for functions appearing on the second list (i.e., those which are “closely associated with inherently governmental [functions]”). According to one government administrator, the president’s rationale “is built around the general principle that the more critical

a function is, the greater the need for internal capability to maintain control of the agency's mission and operations" (Brodsky, 2010b, p. 1).

Another consideration in allowing contractors to perform these sorts of functions is the need to resolve the question of organizational conflicts of interest. The defense industry has consolidated over recent decades, both horizontally and vertically (by way of multiple mergers and buyouts), and this significantly reduced the number of independent firms capable of providing the DoD with objective analysis. This loss of independence, and the resulting reduction of competition, has facilitated the perception of an improper interconnectedness. The public, government watchdogs, and industry have, properly, little tolerance for government malfeasance; even the appearance of such conflicts would severely disrupt the contracting process, delaying the provision of essential services to the government.

Following the president's initiative to reduce contractor support, the Army (Office of the Secretary of Defense [OSD], 2008) issued a memorandum titled "Guidelines and procedures on in-sourcing new and contracted out functions," which required the Secretary of the Army to "review contracted services to ensure that inappropriate / unauthorized personal services contracts and contracts performing inherently governmental functions or [functions] closely associated with inherently governmental functions are being discontinued or insourced" (p. 1). The distinction between "inherently governmental" and "closely associated with inherently governmental" engendered some confusion.

The Office of Management and Budget (OMB) sought to bring some clarity to the issue. In a document published in September 2011, the OMB provided a lengthy list of functions that are "clearly inherently governmental" and separate lists of "functions closely associated with the performance of inherently governmental functions." This list would supplement the existing guidance provided in FAR Subpart 7.5. Perhaps most significantly, the OMB (2011) sought "to clarify the confusing and controversial" policy on the contracting out of military security operations. According to the OMB document, if a function is part of combat or could evolve into combat, then contractors cannot be used. An additional provision (purportedly designed with small businesses in mind) "places a lower priority on insourcing if the function is not inherently governmental" (OMB, 2011). As a result of the OMB's new guidance, agencies now

have more discretion with regard to contracting and insourcing, especially when it comes to functions in the “closely associated” category.

III. Factors to Consider

At present, most government agencies do not keep extensive cost-based accounting records. Although the government has a clear understanding of how much money an agency requests and subsequently spends, it has little information connecting the costs of an agency to its activities. Even when the government can provide the direct labor costs, it generally has no accurate mechanism to gauge the indirect costs; these include recruiting, training, infrastructure, management, administration, security, capital equipment, facilities, and so forth. On the other hand, the cost of service provision via a private sector firm is decidedly easier to calculate, as all of the above variables are reflected in the amount of the agreed-upon contract award. Of course, this does not mean that the DoD will achieve higher cost savings in every situation through the use of contractors. In this section, we discuss the factors that must be included in any methodology that purports to be objective and relevant.

The comparison of contractors and civilian employees is not one dimensional. A meaningful analysis that answers the question, “What solution provides the best value for the taxpayer?,” must occur in a multi-dimensional space that includes a number of factors: direct costs, indirect costs, the military’s rotation base, the benefits from competition, and workforce agility and scalability.

Direct Costs

Direct costs are traditionally regarded as the costs of labor and materials directly associated with the product or service provided. With regard to service provision, direct costs include the salaries and benefits paid to workers. According to the OMB (2010), the federal government employed about 2.7 million civilian personnel in 2009, providing a total of approximately \$270 billion in compensation. Indeed, the sheer size of the federal pay system, along with its automatic raises and cost-of-living adjustments, attracts its fair share of scrutiny, especially during difficult budget times. This is, perhaps, for good reason: the average federal salary increases have outpaced inflation by more than 30% since 2000 (Cauchon, 2010b).

At the same time, there is a long-standing contention that federal employees earn less than their private sector counterparts. This assertion has come under fire in the wake of the 2008 financial crisis.

The Federal Salary Council and the Office of Personnel Management (OPM), which are tasked with determining federal salary and wage rates, maintain that federal employees earn, on average, 24% less than their private sector counterparts (Risher, 2010). This estimate is based on the Bureau of Labor Statistics' (BLS') National Compensation Survey and was recently (and publicly) defended by the OPM's Chairman of the Federal Prevailing Rate Advisory Committee (Berry, 2010; Shoop, 2010). However, this estimate only includes wages and salaries, and, since it is an average, is an inaccurate predictor when used for side-by-side comparisons. For instance, the Bureau of Labor Statistics data reveal that federal workers at the lower grades of the General Schedule (GS) earn more than their private sector counterparts, while the opposite is true at the higher end of the scale (Long, 2010). Of course, these data exclude such areas as long-term benefits and stability.

While the OPM seems convinced that government workers are, on average, underpaid, a growing number of studies claims the opposite. A recent *USA Today* analysis (Cauchon, 2010a) found that federal workers earned an average salary (excluding benefits) of \$67,691 in 2008 versus \$60,046 for their private sector counterparts. Taking into account only those jobs that existed in both the public and private sectors, the study found that in 83% of the cross-sector comparisons, the federal employee earned more (Cauchon, 2010a). Similarly, the Heritage Foundation found that federal employees received, on average, a 12—22% wage premium over their comparably skilled private counterparts (Sherk & Richwine, 2010). And using 2008 data, the Cato Institute (Edwards, 2009) identified a gap in excess of \$29,000 between the average full-time federal worker (\$79,197), and the average full-time private-sector worker (\$50,028).

These estimates were decried in writing as “unfair” and “untrue”, by OPM Director John Berry (Berry, 2010). He and others, including Sen. Ted Kaufman (D-Del.) and various federal employee unions, have alleged that the job comparisons are flawed and that the comparisons do not adequately take into account the specialized skills, education, and experience of government employees (Long & Kalish, 2010).

Howard Risher, the managing consultant for the 1990 OPM study that led to the creation of the Federal Employees Pay Comparability Act, has asserted that, at present, there exists no methodology that adequately captures all of the necessary information. Indeed, both sides in the debate employ analytical methods that are complex and carry underlying assumptions; moreover, neither side's job-to-job comparisons contain sufficient detail. The OPM's director admits that the statistics that undergird the OPM's 22% pay-gap number "have a credibility problem" (Bluey, 2010).

More contentious still is the comparison of total compensation (wages/salaries and benefits) between the two groups. Again, a lack of good data facilitates speculation and conjecture. The OPM, for its part, is mute on the subject since the BLS' National Compensation Survey, on which it bases its analysis, includes only salary information. The Cato Institute and *USA Today*, on the other hand, rely on both the BLS survey and the Bureau of Economic Analysis' industry data, which includes employee benefits. *USA Today* (Cauchon, 2010b) found that in 2009 federal civil servants earned pay and benefits worth an average of \$123,049 compared to private workers' \$61,051. *USA Today* (Cauchon, 2010a) also found that in 2008, benefits averaged \$40,785 per federal employee and \$9,882 per private sector counterpart. However, James Sherk and Jason Richwine (2010) of the Heritage Foundation argues that total compensation for federal employees is only 30—40% higher than that of private sector workers, which is less than the estimates from *USA Today* and the Cato Institute, both of which indicate that total compensation for federal employees is about 50% higher than that of private-sector employees (Edwards, 2009; Long & Kalish, 2010). Finally, a recent analysis by the *Federal Times* (Losey, 2011) indicates that federal employees are being increasingly concentrated into higher pay grades without taking on greater responsibility, a practice that inflates their pay.

Indirect Costs

To determine the total cost of producing a good or providing a service, one must account for not only the direct, but also the indirect costs that are incurred. Given the difficulty and disagreement over how to compare the "direct" costs, it is of little surprise that indirect costs are usually not adequately accounted for in labor cost comparisons. Indirect costs, or overhead, are

those expenses that cannot be directly associated with the cost object (i.e., the specific purpose for which the cost is being measured), but are necessary for its accomplishment.

In the private sector, indirect costs are differentially allocated among a firm's products so that the firm knows how much it spends on what, allowing the firm to price its output (be it a product or service) appropriately. This can be more complicated in the case of service provision, in that the unit of production (i.e., the service rendered) cannot always be expressed as a discrete number. Indirect costs may also be allocated among firms, organizations, or programs within organizations, to more fully identify the costs associated with product manufacture or service provision. For instance, multiple organizations may share office space, janitorial services, electricity, and so forth. Organizations in this position estimate their usage cost for the item in question using various techniques and come to an agreement as to their respective responsibility for paying it. Similarly, within the DoD, costs are shared across agencies, programs, and functions, and even across military service branches. These include the costs of financial management, human resources management, legal services, grants management, agency management, information systems security, budget formulation and execution, research and development, personnel security, and insurance—to name only some.

Calculating those indirect costs that are fixed in the short term, but variable over time, can present additional challenges. For example, groceries sold in military commissaries are subsidized by the DoD. The subsidy can be allocated to each service member in determining the full cost of his or her labor. But at some point, as more service members are recruited and accessed, an additional commissary will need to be built to maintain the level of service. Accordingly, accounting techniques must be quite sophisticated if they are to fully capture these types of indirect costs.

Indirect costs also include shared costs—that is, costs that are incurred through joint usage (e.g., capital equipment, computing, facilities maintenance, security, etc.). To offer a simple example, consider a repair depot operated by the military, which services combat vehicles. Mechanical parts and repair technicians are direct costs, as they are easily traced to the cost object and, as such, can be readily accounted for. On the other hand, the clerks who process the repair orders or maintain the inventory of spare parts, their computers, and the paper they use are, generally,

accounted for indirectly. Otherwise, the repair shop would have to individually trace, to each and every repair order, the labor expended by the clerk, the paper used, and the associated costs of using the computer (electricity, software license, wear and tear, etc.). It might also be that the repair of vehicle A requires greater use of a certain piece of equipment than does vehicle B. Accurately determining the cost of repairing either of these vehicles, then, requires that the expense associated with the purchase, use, and periodic replacement of the equipment in question be proportionally allocated between the two vehicles.

Accounting for shared costs can be especially challenging. Accordingly, cost “pools” are often created, which, in turn, are allocated among the cost objects. Then, to approximate the full cost of repairing a vehicle, one would divide the pooled costs by the total number of vehicles repaired by the shop over a given period and add the resulting amount to the direct costs that were incurred.

At first glance, it might seem reasonable for the repair depot to pass along its overhead costs to customer organizations (in this case, the different military service branches) in proportion to the number of their vehicles the contractor repairs. Often, however, a particular customer generates more than his fair share of overhead costs. For instance, if more time is required to process Army orders compared to, say, Air Force orders, then using “number of vehicles repaired” as the “cost driver” might be perceived as unfair. Indeed, balancing precision and complexity, ease of use, and fairness to all customers can be challenging (Dalrymple, 1995). In this example, the Air Force would prefer that service-specific administrative rates be applied, so as to reflect the greater burden imposed by the Army. Clearly, the more cost drivers that are used and integrated into a costing methodology, the more accurate (and, thus, fair) the allocation will be. But isolating cost drivers can be time consuming and costly, and eventually reaches the point of diminishing returns.

Since costs can be measured with multiple purposes in mind, it is also possible for a specific cost to be categorized as direct relative to one cost object and indirect relative to another (Gordon, 2000). For example, if one considers the Defense Contract Audit Agency (DCAA), when the cost objective is to measure the cost of conducting an audit, the cost of an auditor would be a direct cost. But when one considers current operations in Iraq, some portion of the cost of

DCAA, which includes the auditor, would be considered an indirect cost, since DCAA audits supporting contracts in Iraq.

Historically, the DoD has rarely allocated indirect costs. Rather, it has relied upon a standardized overhead rate that is built into the in-house cost estimates conducted by various DoD agencies. And, while some claim that the DoD has a responsibility to be “transparent” with regard to spending, it is questionable whether the full allocation of costs, otherwise known as absorption costing, would yield significant benefits, as this would likely provide only abstract estimates. As mentioned earlier, it would be exceedingly difficult, not to mention time consuming and expensive, to accurately apportion all of the indirect costs incurred by the DoD among all of its programs and functions. Indeed, one of the benefits of hiring contractors is that the costs are far more visible (i.e., they are fully inclusive and reflected in the final price). In fact, contractors must adhere to the Cost Accounting Standards (CAS) set forth by the government. These 19 rules and standards ensure cost visibility while ensuring that competition among contractors occurs on a level playing field. The costs associated with the use of government employees, by contrast, are spread across multiple organizations and accounts. At the same time, however, it is clear that attempting to capture all overhead activities through the use of a uniform rate is inappropriate.

Rotation Base

Calculating the cost for deployed military personnel can be even more complex. Military personnel are not operationally deployed indefinitely, even during wartime (the Army limited tours in Iraq to 15 months and the Marine Corps to seven months). Service personnel require time at their home station between deployments so they can participate in required training and maintain their morale. Accordingly, for each deployed position, there must be multiple occupants, so that as personnel return home, replacements are ready to take their place. Thus, the cost of providing one deployed soldier, for example, is a function of deployment intervals, in addition to the position’s respective salary. Any comparison between the yearly compensation of a contractor and that of a military serviceman must take this rotation base into account. If, for example, a serviceman is deployed in theater for one year, the cost of maintaining that individual

in theater must be multiplied by a factor between two and three, when comparing the cost of performing that function with contractor personnel.

Benefits from Competition

Contracting for services enables the DoD to leverage the benefits of competition, which include, most significantly, greater efficiency, more innovation, higher quality, and better performance.

These benefits are summarized below:

- Competitive markets lead to economically efficient outcomes. As firms compete with one another, they have an incentive to provide goods and services at lower costs.
- To increase profits and market share, firms must constantly innovate to gain an advantage over their competitors.
- Competition promotes higher quality and better performance at lower prices. Initially, higher quality products and services entail higher marginal costs, which translate to higher prices for the buyer. However, once improvements are made to these products or services (through changes in design or process), the higher quality firms are better able to adapt, potentially matching (or even undercutting) the lower-quality firms with regard to price (Cohen & Mazzeo, 2004).

The extent to which these benefits are realized depends on how requirements are written, how solicitations are made, how contractors are selected, and how contracts are structured.

Nevertheless, flexible contracting that creates points of entry for new firms spurs competition, leading to lower costs and higher performance in the long run.

Workforce Agility

All too often, studies comparing the value of government employees relative to contractors fail to account for inherent differences in agility. Contractors can be mobilized quickly, without the commitment or expense of sustaining a large, long-term staff. Military personnel and federal civil servants, however, occupy full-time, salaried positions. Moreover, contractors often specialize in a particular service and can provide it to multiple entities on a constant basis. From vehicle repair technicians, to construction workers, to food preparers, contractors are often, though not always, better suited to the provision of certain services in that they have acquired the

skills that come with experience. Their military and government counterparts, on the other hand, may not specialize in performing these tasks.

Hiring contractors allows the government to “shop” for specific skill sets. In the event that the DoD requires a computer programmer with experience using a certain programming language, it may make more sense, from a cost-efficiency perspective, to hire a contractor than to retrain a government employee who is experienced in another computer language. Contracting also facilitates the rapid discontinuation of a position, once it is no longer needed. If, for instance, the military needs to conduct short-term operations in a foreign country, and, thus, requires the use of translators or transcribers, it is more cost effective to obtain these skills via contracting. Once operations conclude, the contract can be terminated. Government employees, on the other hand, are rarely terminated, and if they are, it is usually for reasons of misconduct. Rather, government employees are reassigned, sometimes to positions that may not be aligned with their skills and abilities.

Workforce Scalability

As discussed earlier, because contractors do not need to make long-term commitments to their employees, they are better able to “surge” during times of conflict, natural disaster, or other contingencies and then downsize quickly once the conflict has ended. Moreover, contractors can be hired and trained much more quickly than their government counterparts. For instance, in Iraq, the State Department relies on private security contractors (PSCs) to protect individuals, transport convoys, forward operating bases, buildings, and economic infrastructure (CRS, 2008). According to the State Department, contractors can be recruited, vetted, hired, trained, and deployed in 90 to 120 days (Congressional Research Service [CRS], 2008). State Department special agents, on the other hand, are college-educated law enforcement officers with extensive training in many areas, only some of which is in security. It takes approximately two years to recruit and train special agents. Unlike military personnel, contractors are not bound by deployment or salary constraints (CRS, 2008). A contractor can also require its employees to deploy for long periods and pay them accordingly. Thus, contractors do not need to train as many workers. This is not the case with government employees. Moreover, many contractors hire laterally (i.e., hire qualified employees from other firms), obviating the need to extensively

train employees in the first place (CBO, 2005). Of course, it could also be argued that the government provides contractors with a subsidy of sorts, in that their employees (many of whom are ex-military) were trained at taxpayer expense.

Contractors' enhanced flexibility and quick deployment carry added cost benefits, even beyond those associated with direct compensation and overhead costs, in that government agencies require fewer long-term workers. At the same time, pay scales for contractors vary depending on the U.S. government's perceptions of the danger involved (CRS, 2008). This is not normally the case for U.S. military personnel.

Other factors may also lead to increases in contractor pay. Again, with regard to PSCs in Iraq, the lack of military or otherwise qualified oversight of contractors has been cited as highly problematic. To address this issue, the DoD is working to establish an oversight mechanism, which will undoubtedly increase costs to the government.

Flexibility with regard to pay and deployment duration is an advantageous feature of contracting. However, flexibility in contracting is not the same as contract flexibility. If mission objectives or conditions change, as is often the case during conflict, the terms of a contract may need to be modified. Depending on the type of contract (e.g., cost plus, firm-fixed price, time and materials) and the location of the contracting office, the issuance of change orders by government personnel can be cumbersome. Military personnel and, to a lesser extent, federal civilians, are capable, and in many cases trained, to adapt to changing environments effectively and efficiently, and without procedural delays.

IV. Cost Comparison Methodologies, Past and Present

There are two published methodologies for developing costs for government employees and military personnel. First, the DoD issued a supplement to Office of Management and Budget (OMB) Circular A-76, the Costing Manual, which sets forth the costing methodology to use when developing the “government most efficient organization” (MEO) proposal for an A-76 public/private competition (OSD, 2008). Second, in January 2010, the Office of the Secretary of Defense issued Directive-Type Memorandum (DTM) 09-007, titled “Estimating and Comparing the Full Costs of Civilian and Military Manpower and Contract Support.” The DTM constitutes current DoD guidance for all insourcing decisions.

Both of these approaches fall short of accounting for all of the costs associated with service provision. For instance, the A-76 Manual uses a blanket 12% overhead rate for all government functions and fails to account for the true cost of government capital. However, many consider it far superior to the DTM, which, it must be said, is not a true methodology. Rather, the DTM provides lists of considerations for analysts, but fails to offer a structured, uniform process to quantify costs. Over the years, reports published by various government agencies, including the Government Accountability Office (GAO) and the Congressional Budget Office (CBO), have highlighted the deficiencies in the current methodologies, and, in some instances, have advocated a new approach. The DTM and the A-76 Costing Manual, in addition to these government reports, are examined below.

DTM 09-007

The DTM 09-007 “establishes the business rules...for use in estimating and comparing the full costs of military and DoD civilian manpower and contract support” (OSD, 2010). However, the DTM provides only general explanations of cost accounting practices, and, thus, cannot operationalize the directives it prescribes with adequate specificity. Rather, analysts tasked with the preparation of in-house cost estimates must determine these costs using their own best judgment. While the analyst’s estimate may be well-reasoned, the lack of uniformity across the DoD in preparing these estimates precludes objective comparisons between the private and

public sectors. A brief examination of some of its phrasing and terminology illustrates this point. With regard to indirect, shared costs, for instance, the DTM states:

If an organization produces or provides more than one product or service, indirect costs would include the fair share of recurring costs of higher-level management (i.e., the fair share of labor and non-labor costs of higher-level management) and the fair share of the recurring costs of shared professional support services performed externally to, but in support of the organization (e.g., the fair share of the labor and non-labor costs of accounting, legal, human resources, budget, data processing, and base operating support). (OSD, 2010, p. 9)

This is certainly a valid statement, as shared costs must be taken into account in making labor cost comparisons. But the process by which one accounts for these costs is conspicuously missing. There is no formula or process to be used. Moreover, that there is no explanation as to what constitutes a “fair share” is highly problematic. After all, even if everyone within the DoD plays by the same rules, this is of little consequence if the rules in question are open to interpretation.

With regard to direct non-labor costs, the DTM provides the following guidance:

If an organization rents office space for its exclusive use, its monthly payments are a direct cost to that organization. If an office has its own copier, the costs of operating and maintaining the copier (including supply purchases and repair calls) are a direct cost to that office. (OSD, 2010, p. 9)

In this instance, the DTM’s direction is provided in the form of examples. In fact, in the DTM’s various “attachments,” where examples of costs are listed, there is a disclaimer that states that the costs listed are “not all inclusive, but should be used as a starting point when developing cost estimates” (OSD, 2010, p. 21). Needless to say, a comprehensive methodology should include an exhaustive list of costs and follow a standardized approach. The labor and non-labor costs that are explicitly referenced in the DTM are listed in Figure 1.

<u>Labor Costs</u>	<u>Non-Labor Costs (Cont.)</u>
Salaries	Raw Materials, Parts, and Subassemblies and Their Associated Costs
Wages	Office Equipment and Supplies
Allowances	Printing
Special Pay	Rent for Leased Assets
Other Pay	Security
Retirement and MERHC	Accounting
Defense Health Program	Legal
DoD Dependents Education	Human Resources
Defense Commissary Agency	Budget
Defensewide Family Housing	Data Processing
	Base Operation Support
<u>Non-Labor Costs</u>	Subsidized Groceries
Capital Assets	Child Education and Development
Facility Depreciation	Family Services
Facility Maintenance	Mail Service
Facility Repair	Morale
Cleaning Services	Recreation
Contract Administration and Oversight	Exchange Privileges
Equipment Depreciation	Medical Care in Austere Environments
Equipment Maintenance	Recruiting
Equipment Repair	Training
Registration and Penalty Fees	Special Training
Casualty Insurance	Contingency Operations Training for Contractor Personnel
Liability Insurance	Travel
Raw Materials, Parts, and Subassemblies and Their Associated Costs	Utilities
Office Equipment and Supplies	

Figure 1: Costs Explicitly Listed in DTM 09-007

At first glance, the list appears to encompass a great many costs, but, for many of these items, there is no complementary instruction regarding how they are to be accounted for, despite the fact that they are explicitly listed in the memorandum. Rather, the DTM sidesteps the large, complex indirect costs and focuses on the smaller, discrete, easily calculated costs, assigning them numerical values. The indirect costs associated with the employment of military personnel, including discount groceries, day-care facilities, recruitment and advertising, family assistance, child education, manpower management (determined by the Services), Treasury contribution to retirement, and a few others, are all allocated by way of assigned costs. The DTM provides a similar list of costs for civilian federal employees. But even with regard to these stipulated costs, the DTM's approach is lacking. For example, a \$322 discount grocery outlay is added to the

overall cost of each military member (it appears that \$322 is the per capita average cost of the subsidy). And while this may well reflect the true cost of the subsidy in the short term, the question must be asked, At what point does this cost move to the next increment? In other words, at some point, an additional commissary (or military base day-care facility, school, etc.) will need to be built to maintain the level of service. However, it appears that there is no mechanism in place to account for incremental increases in such costs. And while short-term fixed costs—such as this—as well as short-term variable and pay-as-you-go (e.g., retirement) costs are conceptually defined in the DTM, there is no formal methodology to support their insertion into a formal costing model. Yet costs of this nature—those that are relatively small, fixed in the short term, but variable over time—are significant when taken together, and must be built into a comprehensive methodology.

The DTM also fails to address long-standing issues. For example, the DTM fails to take into account federal income taxes paid by contractors, which the DoD does not pay. Contractor bids must be adjusted downward to level the playing field. Similarly, the DTM overlooks the costs incurred by the government to insure and indemnify in-house employees—costs that are built into contractor estimates. Finally, the DTM fails to adequately account for the true cost of capital. In the section on indirect costs, it states that “for example, the fair share of rent...incurred by an agency would be an indirect cost to all of the organizations within that agency” (OSD, 2010, p. 9). The DTM goes on to state, “Also, the fair share of the costs of equipment, such as a commonly shared copier...would be an indirect cost to all of the offices using the copier” (OSD, 2010, p. 9). Portraying capital assets (in this case, rent of a facility and a copier) as costs that are to be shared among organizations within a single agency may be appropriate in the case of a small firm. But this portrayal fails to convey the extent to which the DoD’s many capital assets impact operations throughout the enterprise, leaving analysts ill-equipped to account for them.

A-76 Costing Manual

The OMB issued Circular A-76, *Performance of Commercial Activities* (CRS, 2005), establishing federal policy for determining whether recurring commercial activities should be performed by private sector contractors or by government employees. In short, A-76 was

designed to facilitate a “fair” public-private, competitive sourcing process, to determine the most cost-effective method of obtaining products and services. The DoD-issued supplement, the Costing Manual, is significantly more useful than the DTM. One will immediately note the difference in length: The DTM consists of 27 pages, whereas the A-76 Costing Manual spans 140. While the DTM provides mostly definitions, basic explanations, and examples, the A-76 is a methodology that accounts for a full range of burdened costs. In addition to a handbook, which provides analysts with detailed instruction, the A-76 makes use of a software program, “win.COMPARE^2,” allowing analysts to produce “in-house cost estimates.” Trained analysts input costs, based on the instructions in the handbook, and the program performs the calculations. Analysts use the A-76 Manual to prepare estimates for both new and existing tasks.

To accurately ascertain the cost of government inputs, the appropriate government agency establishes a government most efficient organization (MEO), which, in theory, streamlines the existing or new government function, often by relying on fewer resources. The estimated cost for the MEO to complete the given task constitutes the government’s “bid.” Thus, the formation of MEOs enhances competition between the government and private industry, while also facilitating a more accurate allocation of the costs to the government.

The A-76 Manual includes five components, which together form the basis for the DoD cost estimates (see Figure 2): (1) direct personnel costs (e.g., salaries, wages, fringe benefits, and allowances), (2) material and supply costs (e.g., parts, office supplies, raw materials), (3) specifically attributable costs (e.g., capital, rent, travel), (4) overhead (e.g., general and administrative), and (5) additional costs (e.g., recruitment, training, and relocation; DoD Competitive Sourcing and Privatization Office, 2001).

Prior to the advent of advanced accounting software, and during an era in which indirect costs were given less attention, government agencies lacked meaningful data on which to base overhead rates. As the importance of tracking and allocating indirect costs grew in importance in the private sector, and as contractors became more vocal in their demands for an even playing field, the OMB responded by introducing a single overhead rate of 12%, which was built into a revised version of the A-76 Manual. This rate was near the midpoint of overhead rates suggested by government agencies and private sector groups, and was thought to be a good proxy given the

lack of data (GAO, 1998). Indeed, prior to the adoption of this rate, the DoD usually did not include overhead in its cost estimates at all. While the DoD and contractor organizations tended to agree that the 12% rate was better than nothing, it was clear that no one rate could adequately capture the actual overhead incurred by the myriad programs and functions within the DoD. Lacking sound empirical data, the 12% rate represented little more than a compromise.

<p><u>Labor Costs</u></p> <p>1. Personnel Costs</p> <p>Direct Compensation</p> <p style="padding-left: 20px;"><i>salaries</i></p> <p style="padding-left: 20px;"><i>wages</i></p> <p>Other Entitlements</p> <p style="padding-left: 20px;"><i>healthcare</i></p> <p style="padding-left: 20px;"><i>retirement</i></p> <p>Fringe Benefits</p> <p>Other Pay</p> <p style="padding-left: 20px;"><i>overtime</i></p> <p style="padding-left: 20px;"><i>Sunday differential</i></p> <p style="padding-left: 20px;"><i>holiday differential</i></p> <p style="padding-left: 20px;"><i>night differential</i></p> <p style="padding-left: 20px;"><i>hazardous differential</i></p> <p>Allowances</p> <p style="padding-left: 20px;"><i>overseas</i></p> <p style="padding-left: 20px;"><i>uniform</i></p> <p><u>Non-Labor Costs</u></p> <p>2. Material and Supply Costs</p> <p>Raw parts</p> <p>Parts</p> <p>Subassemblies</p> <p>Components</p> <p>Office Supplies</p>	<p><u>Non-Labor Costs (Cont.)</u></p> <p>3. Other Specifically Attributable Costs</p> <p>Depreciation</p> <p>Cost of Capital</p> <p>Rent</p> <p>Maintenance and Repair</p> <p>Utility Costs</p> <p style="padding-left: 20px;"><i>electricity</i></p> <p style="padding-left: 20px;"><i>telephone</i></p> <p style="padding-left: 20px;"><i>water</i></p> <p style="padding-left: 20px;"><i>sewage services</i></p> <p>Insurance</p> <p style="padding-left: 20px;"><i>casualty</i></p> <p style="padding-left: 20px;"><i>personal liability</i></p> <p style="padding-left: 20px;"><i>capital asset</i></p> <p style="padding-left: 20px;"><i>minor item</i></p> <p>Travel</p> <p>MEO Subcontracts</p> <p>Other Costs</p> <p style="padding-left: 20px;"><i>minor items costing less than \$5,000</i></p> <p>4. Overhead Costs</p> <p>5. Additional Costs</p>
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Figure 2: Costs Listed in the A-76 Costing Manual

In its 1998 report, the GAO recommended that the DoD “develop a methodology for determining a more appropriate interim [overhead] rate or range of rates for use in A-76 competitions” (p. 12). The DoD responded that while it was prepared to work with the OMB to establish a more accurate rate, it stated that it did not plan to establish a DoD-specific rate. Thirteen years later, the DoD continues to rely on the 12% rate, and the OMB, for its part, has yet to release new guidelines. In fact, the current A-76 Costing Manual, which was revised in 2001, includes the heading, “Interim Guidance.”

It might be noted that the full overhead of a private sector organization typically falls between 50—150%, which makes it difficult to justify the government’s use of a 12% rate. At the same time, the 12% rate, it should be said, was never meant to reflect the entirety of an agency’s overhead. Many cost components—both direct and indirect—are accounted for in the A-76 Manual with sufficient specificity. Of the five cost components mentioned above, two of them (attributable costs and additional costs), though generally considered indirect or overhead costs, are allocated separately (though perhaps not fully). In any case, the 12% rate was designed to supplement the allocation of overhead costs. As mentioned previously, a balance must be struck with regard to a cost allocation’s specificity. And while the A-76 Manual attributes some indirect costs, many remain unspecified.

The military services, and all other executive branch agencies, are permitted to calculate overhead based on their own analysis to determine a more accurate estimate. This may be advantageous, if, for instance, the agency in question wishes to downsize and believes that the 12% rate underestimates the true cost of its overhead. In this case, subsequent competitions would favor contractors, which would then justify cuts to the government agency’s workforce. More generally, however, it is not clear if allowing agencies to determine their own overhead rates is beneficial, even if they are more accurate. As noted earlier, without a uniform methodology, it is difficult to know if, and to what extent, one sector provides a service more efficiently than the other. Furthermore, the question arises, Should the government be permitted to, in effect, “game the system” by selecting the amount of overhead it wishes to include in its estimates? Surely, a more consistent, standardized approach is needed.

The A-76 Manual states that the private sector’s offer must beat the in-house estimate by at least 10% to be awarded the contract; otherwise, the in-house provider will provide the service in question (DoD Competitive Sourcing and Privatization Office, 2001). This was to ensure that the government would not contract out for marginal savings, which could increase risk to the government in the long run. The 10% rule also helps to ensure that even if a contractor underestimates the cost of service provision, the government will not pay more than it would if performing the service in house. However, underestimation on the part of contractors is not as common as one might think. Studies by both RAND (Gates & Robbert, 2000) and the Center for Naval Analysis (Clark, Rosenblum, Coast, & Smallwood, 2001) indicate that competitive

sourcing yields long-term savings (30% on average) that are in line with initial projections, regardless of who wins the competition—be it the contractor or the MEO. Accordingly, if the 12% overhead rate is too low, as many would contend, then the 10% rule, which also has the effect of penalizing contractors, may lead to further distortions to the ideal ratio of contractors to government employees.

In 2007, prior to the release of the DTM, the Under Secretary of Defense (AT&L) implemented Section 343 of the 2006 National Defense Authorization Act, which authorized the use of federal employees without first conducting an A-76-sanctioned public-private competition, when an economic analysis shows that they are the low-cost provider for contracts that

- have been performed by government employees at any time on or after October 1, 1980;
- are associated with the performance of inherently governmental functions;
- were not awarded on a competitive basis; or
- have been determined by a contracting officer to be poorly performed (on the basis of excessive costs or inferior quality).

In 2008, the Army released its “Guidance and procedures on insourcing new and contracted out functions” (OSD, 2008), referenced in the previous section, to clarify previous DoD guidance. The memorandum required Army personnel to reevaluate all contracts awarded previously through the A-76 process to ensure that they were not for inherently governmental work (prior DoD guidance for insourcing had excluded contracts that had been awarded through the A-76). In 2010, the DTM was released. It was designed to replace the A-76 process in instances where the task in question was not inherently governmental, thus requiring an economic analysis.

The DTM and the A-76 Manual: A Comparison

Beyond the labor and non-labor costs listed in Figures 1 and 2, both the A-76 Manual and the DTM account for some additional costs. These are discussed below.

- Transition Costs

When the existing in-house provider transitions to an MEO to construct its bid, the government incurs a cost. Both methodologies account for these costs.

- Common Costs

Common costs (or “wash” costs) are the same regardless as to the outcome of the cost comparison. Accordingly, the cost analysis should not include the cost of items furnished to contractors by the government if the same items would also be furnished to the MEO or government agency. Both methodologies account for common costs.

The DTM and A-76 Manual differ significantly in their cost accounting methodologies, not only with regard to which items are included, but perhaps more important, in how they are accounted for. The major differences are discussed below.

- Federal Income Tax Adjustment

The DTM fails to take into account income taxes that are reflected, implicitly, in private sector contract bids. Contractor bids should be adjusted downward to level the playing field. The A-76 Manual makes this adjustment and includes a tax rate table.

- Cost Growth

The DTM states that, where appropriate, analysts should take into account “the inherent risk of cost growth after contract negotiation” (OSD, 2010, p. 6) although there is no guidance on how this is to be done. The A-76 Manual makes no mention of cost growth.

- Childcare, Commissary, and Family Services

Military personnel are afforded certain benefits, including education, subsidized childcare, groceries, and family services that effectively increase their level of compensation, and, thus, the cost of service provision by military personnel. The DTM accounts for these costs by assigning each a numerical value reflective of the per capita cost of the benefit. This amount is then added to direct labor costs. Beyond the 12% overhead rate, these benefits are not accounted for in the A-76 Manual.

- **Morale and Recreation**

Services designed to boost morale of deployed troops effectively increase the cost of service provision by military personnel. More generally, recreation services are provided to all active duty military personnel in the form of base gym membership, organized team sports, and dedicated parks and other facilities provided free of charge or at subsidized rates. The DTM states that analysts should account for these costs by gathering input from the service branches. At present, there is no uniformly applied method for estimating these costs. Beyond the 12% overhead rate, these benefits are not accounted for in the A-76 Manual.

- **Depreciation and Capital Cost Computations**

Two significant costs—depreciation and capital—are accounted for in both the A-76 Manual and the DTM. The DTM, however, merely states that these costs must be included in the costing analysis. The A-76 Manual, on the other hand, includes significant detail on how to perform calculations such as useful life, disposal and residual value, depreciable basis, acquisition cost, capital improvements, monthly depreciation, and percentage of shared asset usage. The same is true with regard to capital cost computations. The A-76 software performs computations based on an array of variables, including the accumulated depreciation, the age of the asset, the acquisition cost, and capital improvements, among others.

Government Reports

A number of government reports have highlighted the inadequacies of the A-76 and DTM methodologies. The first two reports, one published by the Congressional Budget Office (CBO, 2008), and the other by the Government Accountability Office (GAO, 2010), compare the costs of using private security contractors and government workers to provide security in theater. The third report, by the CBO (2005), discusses in-theater logistics support for military forces. These reports consider elements that are not accounted for by either methodology, including, most notably, the rotation base. However, the government reports ignore the majority of overhead costs and do not assign a value to contractor agility (i.e., the capacity to downsize quickly).

In-Theater Security

Private security contractors (PSCs) are often perceived as costing significantly more than equivalent military personnel. In its 2008 report, “Contractors’ Support of U.S. Operations in Iraq,” the CBO responds to a statement made by Joseph Stiglitz and Linda Bilmes according to which PSCs were earning up to \$1,222 a day, while an Army sergeant, by contrast, garnered between \$140 and \$190 a day. The CBO found that the \$1,222 figure represented the contractor’s billing rate per employee (which included direct costs, indirect costs, and profit) and not the amount the employee was actually paid. In actuality, “the costs of a private security contract are comparable to those of a U.S. military unit performing similar functions” (CBO, 2008, p. 14). According to the CBO, whose estimate placed the Army’s total costs between \$88 million and \$110 million, a PSC was paid \$99 million to perform the same security function. The CBO’s analysis was based on the following cost components:

- Personnel Costs
 - Direct compensation
 - Deferred cash compensation (e.g., retirement pay)
 - Services provided in-kind at military installations (e.g., commissaries, housing, and child care)
 - Both current and deferred health care
- Operating Costs
- Equipment Costs

The analysis also accounted for the rotation base. The ratio of home base to deployed units was estimated at 1.2:1 by the CBO. The Army’s standard ratio requirement of 2:1 has gone unmet in Iraq because of force requirements. Thus, this analysis is not generalizable to all in-theater security operations. In other, smaller military operations outside of Iraq, the ratio is higher, meaning that during “normal” contingencies, more is spent to maintain the rotation base. The CBO (2008) states that in peacetime, “the private security contract would not have to be renewed, whereas the military unit would remain in the force structure” (p. 14). And yet, the resulting cost savings are not built into the CBO’s cost estimate. Finally, the CBO analysis fails to include overhead costs incurred by the DoD beyond those included in the Army’s “operating costs” (i.e., those that are paid out of its Operations and Maintenance (O&M) appropriation).

In its 2010 report, “Warfighter Support: A Cost Comparison Using State Department Employees versus Contractors for Security Services in Iraq,” the GAO compares the “likely” State Department costs with the actual contractor costs for four task orders and one contract awarded by the State Department for security services in Iraq. The GAO found that for three of the task orders and the one contract, State Department costs would have exceeded the price that was charged by contractors. For example, using State Department employees to provide static security for the embassy in Baghdad would have cost 11 times more (approximately \$858 million for one year compared to the approximately \$78 million charged by the contractor).

In the one instance where State Department security personnel proved less expensive, it was because the task order specified that security clearances were necessary. The State Department estimated that it would cost \$240 million annually to fulfill the contract’s requirements, whereas the contractor’s price was approximately \$380 million. At first glance, one might interpret this as evidence of biased ground rules; after all, why would security clearances be so much more expensive for non-State Department employees? Surely, the cost of the clearance for these employees is being subsidized by some institution within the bureaucracy. Upon closer examination, however, one finds that contractors typically employ a large percentage of “third country” nationals, as well as local nationals (in this case, Iraqis) to keep costs low. And, since non-U.S. citizens are not eligible for security clearances, it is not so much the cost of the clearance that is prohibitive from the contractor’s perspective, but, rather, the cost of hiring U.S. citizens and then paying them a competitive salary.

Initially, the GAO had intended to analyze the cost of providing security within both the DoD and the State Department. But according to the GAO, the DoD was unable to provide the necessary information. For instance, the DoD could not provide the number and rank of military personnel that would be needed to meet the requirement set forth in the contract. The State Department, on the other hand, was able to provide the “major quantifiable cost components,” which the GAO then used in its analysis (GAO 2010). These components are listed below:

- Salary and benefits
- Overseas costs
- Training and recruitment

- Background screenings
- Support

Overhead and some additional costs could not be included because, according to the GAO, the department was unable to quantify them. For example, administrative costs, oversight, development of new career fields (e.g., dog handlers, screeners, armorers, etc.—all of which are currently occupied by contractors), and new housing (according to the State Department, housing currently used at the embassy in Iraq would be insufficient). The State Department acknowledged, prior to the report’s publication, that these components would add additional costs.

With regard to the rotation base, the GAO notes that State Department employees typically serve one year in Iraq and are then reassigned to a position in the United States. Thus, to determine the annual cost to the State Department, the GAO included both the estimated cost of the “deployed” employees and the cost of a corresponding number of “stateside” employees, and compared the figure with the actual annual contractor cost.

Similarly, the costs associated with sustaining State Department personnel on a long-term basis are not included, which, one could argue, distorts the full cost to the government, providing it with an unfair advantage relative to contractors. At first glance, short-term hires (i.e., contractors) seem like the better choice. At the same time, there may be advantages associated with the use of government personnel, some of which are unrelated to cost (legal status abroad, chain of command issues, etc.). What is clear, however, is that the use of contractors allows the government to downsize quickly post-conflict, which eliminates the potential for government employees to be funneled into new work environments, where they may not be needed. How one quantifies the savings, then, is subject to debate.

In-Theater Logistics

Military personnel, federal civilian employees, and contractors support deployed troops in a variety of ways. In its 2005 report, “Logistics Support for Deployed Military Forces,” the CBO examines the advantages and disadvantages associated with the use of each of these labor categories. The analysis considers multiple alternatives for providing logistics support, each

using a different distribution of the three types, and is based primarily on three factors: cost, flexibility, and legal issues. To determine government cost, the CBO relied on its calculations of personnel costs (direct compensation, deferred compensation, service provided in-kind, and current and deferred healthcare).

The CBO considered common costs to be the same for both, though it made some minor adjustments (e.g., adjusting the cost to the Army upward to account for the higher quality meals provided to contractor employees). With regard to the rotation base, the CBO calculated that the direct personnel cost of having a soldier fill a deployed authorized space (or “billet”) to perform a logistics task would be multiplied by the ratio of total billets (deployed plus rotational) to deployed billets. This ratio was 3:1 for active-duty soldiers, or 7.5:1 for Reserve or Guard members (CBO, 2005).

Additional costs and overhead were not captured, presumably because they were too difficult to establish or were mutually offsetting. The CBO concluded that “logistics support [provided by a contractor] would cost about \$41 billion (in 2005 dollars) over the 20-year period assumed for this study. Obtaining the same services using Army units would cost about \$78 billion—roughly 90% more” (CBO, 2005, p. 36). In addition, for all of the alternative scenarios, the CBO estimated that the “cost of obtaining logistics support from Army units—including the cost of maintaining units in the rotation base—would exceed the cost of obtaining those services from [the contractor] by between \$31.8 billion and \$41.5 billion”(CBO, 2005, p. 40). Moreover, had overhead costs, unique to the military, been included, the cost of obtaining Army services likely would have been even higher. As was the case with in-theater security, agility was considered separately from cost.

V. A New Approach

From an accounting perspective, one might visualize the DoD as a hierarchy of indirect cost pools. The pools at the bottom perform services for which cost drivers can be easily identified. Accordingly, allocation of these costs is relatively straightforward. The cost pools at the top of the hierarchy, however, consist of shared costs that must be assigned to one or more cost objects (e.g., products, services, customers, or other cost pools). The question is, How should said costs be assigned? In the private sector, allocation is often based on one or more of the following criteria: cause and effect, benefits derived, perceived fairness, or ability to bear. Depending on the criterion used, allocation will vary. For instance, the allocation of the costs of a shared service (say, payroll) across product lines or programs, based on revenue, would be considered on an ability to bear basis. However, the same allocation, based on the relative number of service units (e.g., labor hours or checks processed) consumed by each product line or program, would reflect either the benefits derived or the cause-and-effect criterion. Consequently, different amounts are allocated depending on the criterion selected. Clearly, allocation of indirect costs is, then, at least to some extent, discretionary in nature.

The DoD is an extremely large enterprise, made up of a vast array of interrelated agencies and functions, and, as such, lacks an equivalent in the private sector with which one might compare cost allocation methods. Hence, there are questions for which there are no easy answers. For instance, agencies that serve multiple entities throughout the DoD, such as Defense Finance and Accounting Services (DFAS) or the Defense Logistics Agency (DLA), provide services that enhance, albeit indirectly, front-line operations. While some funding is directly appropriated by Congress, the DoD working capital funds are also tapped, rendering cost allocation all the more difficult. Given the decidedly arbitrary nature of the A-76 Costing Manual's 12% overhead rate, it is, perhaps, futile to argue that it should simply be increased to cover indirect costs. The better question, then, is this: How, if at all, should these costs be accounted for in the DoD's methodology? Should they be allocated to lower cost pools? More discussion and future research are clearly needed to answer these questions.

Activity-Based Costing

Developed in the manufacturing industry in the 1970s as a way to more objectively allocate costs, activity-based costing (ABC) has been adopted and adapted by agencies within the private and public sectors. ABC takes into account the costs of all of the resources that are used and all of the tasks that are performed to deliver the service to the customer. Managers can use this information to enhance profitability and cut costs. Rather than selecting one cost driver (e.g., vehicles repaired, orders processed, etc.) and attributing the overhead to the many functions within an organization, often at a predetermined rate, ABC allocates costs across the full range of the organization's activities. ABC uses a four-step process: (1) identify the activities that consume resources, (2) identify the specific cost drivers associated with each activity, (3) compute a cost rate per driver unit or transaction, and (4) assign costs to products or services by multiplying the cost driver rate by the number of cost driver units consumed by the product or service provision (Laverson, 2000). ABC is considered a more nuanced and, thus, accurate way of allocating costs in that it accounts for the specific inputs that go into making a product or providing a service.

It is generally believed that if government overhead was more realistically estimated, then service provision could be managed more efficiently and effectively, which would save taxpayers money. Certainly, achieving greater visibility of costs enhances decision-making. With traditional costing techniques, efforts to reduce costs focused on unit-level activities, as those were most visible (Duong, Johnson, & Uribe, 2009). As one expert in cost accounting systems put it, "When the cost of something becomes apparent, it's less likely to be squandered" (as cited in Katz, 2002, p. 1). But comprehensive costing is not without its pitfalls. First and foremost, it is generally time consuming and costly. The data-collection and data-entry processes require substantial resources, which remain more or less constant over time (Nayab, 2011). Indeed, ABC began to lose ground to other methodologies in the mid-1990s for this very reason. Second, it is not always possible to divide overhead costs. For instance, it is often assumed that if a service is outsourced to the private sector then the associated government overhead will be eliminated. But this is not always the case for a variety of reasons. For instance, as discussed in

Part III, the government workforce is difficult to rationalize. More significant, however, is the fact that the outsourced activity likely relied on resources, administrative or otherwise, that cannot be proportionally reduced. As discussed previously, some costs are fixed in the short term; hence, several activities may need to be outsourced in order to trigger a real reduction in overhead. Accordingly, if an activity is outsourced based on the results of a comprehensive cost estimate (whereby all indirect costs are included), there is a greater risk that some overhead will remain and that all of the anticipated savings will not be realized.

Outsourcing and the Challenge of Eliminating Costs

Eliminating the overhead associated with an activity that has been outsourced is challenging. The Army acknowledged this when it rejected a contractor proposal that had the potential to reduce the Army's overall operating costs. In 1997, the Army received an unsolicited proposal from McDonnell Douglas (now Boeing) and Lockheed Martin to provide full wholesale logistics support for its Apache helicopter program. This would have included the acquisition of spare parts, depot-level maintenance, inventory management, and the implementation of engineering upgrades (GAO, 1999). The contractor bid was less than the Army's in-house estimate. Though many figures have been cited, various agencies within and outside of the DoD estimated a total cost savings of approximately \$360 million (GAO, 1999). Yet after years of debate, the Army rejected the contractor proposal in 2000, citing the adverse impact it would have on its working capital fund.*

If the Apache support were transferred to a contractor, the Army reasoned, the Army Materiel Command, which supplies parts and equipment to Army programs, would have received \$60 million less in annual funding. Without a proportional reduction in military personnel and overhead, the cost of parts for other programs would have increased considerably, negating the \$360 million in savings. However, the Army believed that the necessary reduction in personnel and overhead would have drastically depleted its organic force structure, thus presenting too much of a risk.

*The Army's working capital fund is an account that relies on "sales" revenue to finance its operations. In effect, the Army Materiel Command (AMC) "sells" equipment to various Army programs, the funding for which is generally appropriated through Congress. AMC's goal is to break even by charging customer agencies the full cost of the parts, supplies, and equipment that it provides.

The Marginal Cost Approach

ABC costing is appropriate when the objective is to estimate total overhead; however, if the objective is to minimize government costs, the overhead rate should only reflect the costs that will be eliminated once the activity is outsourced or, as the case may be, shifted to a different service provider within the government. To arrive at this rate, analysts rely on what is referred to as the marginal cost approach. Unlike traditional and activity-based costing, this method identifies the fixed and variable components of overhead cost, and accounts for them separately. Neither the A-76 Manual nor the DTM separate fixed and variable costs. As discussed earlier, adding or subtracting military personnel may not require an immediate adjustment to the number of commissaries, schools, family service centers, and so forth. However, over time, an adjustment will be required. The same logic applies to other indirect costs—from number of administrative personnel to number of computers. Adopting a marginal cost approach allows the analyst to account for these adjustments, and the costs they entail, when making sourcing decisions. The marginal cost approach, however, is not a substitute for comprehensive costing, which serves a different function. To increase cost visibility, reduce inefficiencies, and compare the full costs of public and private service provision, a comprehensive approach must also be undertaken.

Reforming Overhead Management

Compared to the marginal cost approach, the use of comprehensive costing methodologies (e.g., ABC costing) may increase the likelihood that activities will be shifted to an external service provider. Paradoxically, this could lead to higher costs to the government, if the associated overhead is not eliminated. On the other hand, government overhead may be able to “absorb” insourced activities, which can lead to cost savings. But this perspective is shortsighted—the rationale being that since the government cannot cut overhead, it should not use contractors. A new approach is needed. The government should make use of both a marginal and a comprehensive costing approach. This will enable comparisons between an activity’s total overhead and the overhead that, once the activity is shifted to an external service provider, will be eliminated. The gulf that emerges will, in all likelihood, highlight the need for new reforms in the area of overhead management. This might entail new policies that enhance workforce agility and flexibility within the public sector.

Unfortunately, trends are moving in the opposite direction. According to one recent study (Losey, 2011), federal employees “are being increasingly concentrated into higher pay grades” (p. 1) even as their responsibilities remain unchanged. Depending on the cost object(s) used, many of these positions may fall into the category of indirect costs. Between 1998 and 2010, the percentage of employees in the higher grades (i.e., GS 12–15) rose considerably (e.g., 39–56% among budget analysts and 56–74% among program analysts; Losey, 2011). According to the study, “grade creep” is evident in some of the government’s most commonly filled jobs, including financial administrators, accountants, contract specialists, and human resource specialists (Losey, 2011). The government must reform both its costing approach and its overhead management strategy. The time to act is now.

VI. Findings, Recommendations, and Conclusion

Sourcing decisions should not be made with reference to cost alone. Some tasks are inherently governmental or, for whatever reason, are best performed by federal civilian or military employees. Indeed, designing metrics that measure contractor and government performance is essential. Although cost is but one factor that must be considered, it is often critical for making strategic sourcing decisions. Unfortunately, determining this single variable presents a tremendous challenge. Many government agencies cannot identify all of their costs or, in any case, fail to account for them in their cost analyses. Moreover, it is unclear if an agency's total overhead cost should even be included, especially if it remains constant in response to an activity's outsourcing. One thing, however, is certain: a new approach is needed.

Additionally, workforce agility and scalability—factors that are more qualitative in nature—merit consideration. Indeed, each of these should be weighted, or perhaps even assigned a numerical value, when performing cost comparisons. Agility—the capacity to hire employees quickly and downsize readily—certainly has cost implications. Yet current methodologies fail to address these factors. Below, we list our findings and recommendations:

Findings

- Current government methodology fails to account for the true costs of service provision. More accurate visibility of costs would enable leaders to make better informed decisions, and allow analysts to more accurately perform comparisons between public and private service providers.
- A complete cost comparison methodology must account for direct costs, indirect costs, and any required rotation base. The A-76 Costing Manual and DTM do not adequately account for these factors. Recent government reports used a different approach, accounting for direct costs, some indirect costs, and the rotation base. However, overhead was largely ignored, as were the cost advantages associated with contractor agility.

Additionally, qualitative factors such as workforce agility and scalability, contract flexibility, and benefits from competition should also be considered.

- All of the indirect costs are not included in cost comparisons, presumably because they are too difficult to quantify, or their allocation to lower cost pools appears arbitrary. Because costing procedures necessarily involve assumptions and, to some degree, subjective allocation, there is no “perfect” solution. Nevertheless, more research and discussion are needed to determine which costs should be allocated and how this allocation should be performed. Some factors, however, including traceable overhead, the rotation base, and workforce agility have clear cost implications, yet no one current methodology accounts for these factors with adequate specificity.
- With regard to costing techniques, uniformity is important. Even when agencies use the same methodology, the calculations can differ significantly because detailed instructions are often lacking, or agencies have significant autonomy in deciding which costs to include. Without a uniform methodology, it is difficult to capture the trends associated with the costs of public and private sector service provision, as well as to compare costs for similar services in different organizations.
- Accounting for all of an agency’s overhead costs is important. However, unless overhead is reduced if and when a different provider is chosen, the savings may be less than anticipated.

Recommendations

- Agencies should adopt a comprehensive costing methodology (e.g., ABC). A comprehensive methodology will allow for more accurate cost comparisons, which, in turn, will lead to more informed sourcing decisions. The approach should be standardized across the DoD.

- Agencies should also perform a marginal costing analysis. This will enable a comparison between total overhead (captured via the comprehensive methodology) and the potential overhead eliminated as a result of changing to an external service provider (captured via the marginal approach).
- Agencies should make sourcing decisions based on the marginal cost approach. At the same time, the DoD should implement overhead management reforms that enhance flexibility within its workforce so that overhead can be scaled down readily as activities are changed to external service providers. Using a comprehensive and a marginal approach, and then comparing the two figures, will allow the DoD to gauge the efficacy of these reforms.
- In the interim, when making sourcing decisions, the DoD should use the A-76 Costing Manual methodology, as it is more comprehensive than the DTM's method. To improve cost comparisons, analysts should make an effort to calculate their agencies' actual overhead costs, rather than rely on the A-76 Manual's 12% blanket rate.
- When appropriate, agencies should include in their methodology the costs associated with rotation base. In addition, they should also consider factors that are more qualitative, but nonetheless carry cost implications, including contractor agility and the benefits from competition.

Conclusion

As the U.S. economy, still reeling from the recession of 2008, continues along the path to recovery, lawmakers are searching for ways to cut spending in order to reduce the country's \$14.5 trillion debt. The DoD, which consumes the second largest portion of government revenue after entitlements, will likely see significant cuts in coming years. Indeed, cuts are already being made. In August 2011, Congress reached a budget deal that aimed two axes at the DoD. The first was a \$350 billion cut in defense spending over the next ten years. The second was the threat of some \$600 billion more in cuts that would be triggered automatically in the event that a special congressional committee fails to agree on future deficit reductions. At the same time, the

United States is struggling to transform and modernize its military forces and their business systems to enhance national security. In light of these budgetary constraints and security challenges, cost-effective sourcing will become ever more important to the nation's health and stability.

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