

# EXCERPT FROM THE PROCEEDINGS

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### Make or Buy: A Systematic Approach to Department of Defense Sourcing Decisions for Services (An Interim Report)

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#### **Preface & Acknowledgements**

Welcome to our Tenth Annual Acquisition Research Symposium! We regret that this year it will be a "paper only" event. The double whammy of sequestration and a continuing resolution, with the attendant restrictions on travel and conferences, created too much uncertainty to properly stage the event. We will miss the dialogue with our acquisition colleagues and the opportunity for all our researchers to present their work. However, we intend to simulate the symposium as best we can, and these *Proceedings* present an opportunity for the papers to be published just as if they had been delivered. In any case, we will have a rich store of papers to draw from for next year's event scheduled for May 14–15, 2014!

Despite these temporary setbacks, our Acquisition Research Program (ARP) here at the Naval Postgraduate School (NPS) continues at a normal pace. Since the ARP's founding in 2003, over 1,200 original research reports have been added to the acquisition body of knowledge. We continue to add to that library, located online at <a href="https://www.acquisitionresearch.net">www.acquisitionresearch.net</a>, at a rate of roughly 140 reports per year. This activity has engaged researchers at over 70 universities and other institutions, greatly enhancing the diversity of thought brought to bear on the business activities of the DoD.

We generate this level of activity in three ways. First, we solicit research topics from academia and other institutions through an annual Broad Agency Announcement, sponsored by the USD(AT&L). Second, we issue an annual internal call for proposals to seek NPS faculty research supporting the interests of our program sponsors. Finally, we serve as a "broker" to market specific research topics identified by our sponsors to NPS graduate students. This three-pronged approach provides for a rich and broad diversity of scholarly rigor mixed with a good blend of practitioner experience in the field of acquisition. We are grateful to those of you who have contributed to our research program in the past and encourage your future participation.

Unfortunately, what will be missing this year is the active participation and networking that has been the hallmark of previous symposia. By purposely limiting attendance to 350 people, we encourage just that. This forum remains unique in its effort to bring scholars and practitioners together around acquisition research that is both relevant in application and rigorous in method. It provides the opportunity to interact with many top DoD acquisition officials and acquisition researchers. We encourage dialogue both in the formal panel sessions and in the many opportunities we make available at meals, breaks, and the day-ending socials. Many of our researchers use these occasions to establish new teaming arrangements for future research work. Despite the fact that we will not be gathered together to reap the above-listed benefits, the ARP will endeavor to stimulate this dialogue through various means throughout the year as we interact with our researchers and DoD officials.

Affordability remains a major focus in the DoD acquisition world and will no doubt get even more attention as the sequestration outcomes unfold. It is a central tenet of the DoD's Better Buying Power initiatives, which continue to evolve as the DoD finds which of them work and which do not. This suggests that research with a focus on affordability will be of great interest to the DoD leadership in the year to come. Whether you're a practitioner or scholar, we invite you to participate in that research.

We gratefully acknowledge the ongoing support and leadership of our sponsors, whose foresight and vision have assured the continuing success of the ARP:



- Office of the Under Secretary of Defense (Acquisition, Technology, & Logistics)
- Director, Acquisition Career Management, ASN (RD&A)
- Program Executive Officer, SHIPS
- Commander, Naval Sea Systems Command
- Program Executive Officer, Integrated Warfare Systems
- Army Contracting Command, U.S. Army Materiel Command
- Office of the Assistant Secretary of the Air Force (Acquisition)
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## **Contract Management**

Services Supply Chain in the Department of Defense: Defining and Measuring Success of Services Contracts in the U.S. Navy

Uday Apte and Rene Rendon Naval Postgraduate School

Make or Buy: A Systematic Approach to Department of Defense Sourcing Decisions for Services (An Interim Report)

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## Make or Buy: A Systematic Approach to Department of Defense Sourcing Decisions for Services (An Interim Report)

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#### **Abstract**

Over the last decade, Department of Defense (DoD) spending on service contracts more than doubled in constant terms, from \$90 billion in 2000 to \$183 billion in 2012. Policy makers have recently attempted to reduce or even reverse this trend, in part by emphasizing instead the "in-sourcing" of work performed under services contracts. Over the last three years, the Center for Strategic and International Studies (CSIS) has worked to develop a more systematic framework for guiding sourcing decisions for services contracts within the DoD, which would have broader implications for the whole universe of budget-based decisions within the DoD. Towards that purpose, this paper analyzes the stated motivations, implementation strategies, and guiding analytical underpinnings for previous outsourcing efforts and for the currently ongoing in-sourcing initiative. It then assesses current and previous DoD methodologies for guiding sourcing decisions, highlighting the individual strengths and shortcomings of these methodologies. The third section of this paper analyzes

public sector sourcing decisions in the wider context of economics and business management, to provide broader conceptual insights for more informed determinations on these sourcing decisions. All of this research is being used to develop a repeatable, verifiable, data-driven methodology to guide sourcing decisions, which will be presented in the final report of this project.

#### Introduction

Over the last decade, Department of Defense (DoD) spending on service contracts more than doubled in constant terms, from \$90 billion in 2000 to \$183 billion in 2012.¹ Policy makers have recently attempted to reduce or even reverse this trend, in part by emphasizing instead the "in-sourcing" of services contracts. In the past, conversions from government civilians to contractors have been done for reasons of policy or projected cost savings. More recently, conversions from contractors to government civilians, as well as other actions to expand the federal workforce, have been undertaken for a similar combination of policy reasons and projected cost savings. Weaknesses in the methodology used by the DoD to justify or budget for in-sourcing decisions call into question whether the DoD is using accurate data on the cost implications of its sourcing decisions.

Over the last three years, the Center for Strategic and International Studies (CSIS) has worked to develop a more systematic framework for guiding sourcing decisions for services contracts within the DoD. This framework also has broader implications for all budget-based decisions within the DoD. Towards that purpose, this paper first analyzes the stated motivations, implementation strategies, and guiding analytical underpinnings for previous outsourcing efforts and for the currently ongoing in-sourcing initiative. It then assesses current and previous DoD methodologies for guiding sourcing decisions, highlighting the individual strengths and shortcomings of these methodologies. The third section of this paper analyzes public sector sourcing decisions in the wider context of economics and business management, to provide broader conceptual insights for more informed sourcing decisions. All of this research is being designed to support the development of a repeatable, verifiable, data-driven methodology to guide sourcing decisions, which will be presented in the final report of this project.

#### **Department of Defense Sourcing Policy**

#### Office of Management and Budget (OMB) Circular A-76

OMB Circular A-76 was the result of over three decades of policy deliberation towards ensuring that the government did not improperly compete with private enterprise. Starting in the 1930s, a series of commissions and reports grappled with the problem of what tasks should (or must) be performed by government employees, and what tasks are better left to the private sector. These debates culminated during the 1950s and 1960s in the issuing of guidance documents that ultimately became Circular A-76 (hereafter referred to as "A-76"), which sought to lay out uniform guidance on sourcing policy across the federal government<sup>2</sup> (Halchin, 2007, pp. 3–4).

A-76 has been revised several times since its issuance, but the core of the guidance has always been the competitive process, better known as public–private competition. A-76 has never mandated competition for any particular function (though two administrations, those of Presidents Ronald Reagan and George W. Bush, issued policies setting targets for

<sup>&</sup>lt;sup>2</sup> The most recent revision of Circular A-76, issued in 2003, can be viewed here: http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a076/a76\_incl\_tech\_correction.pdf



<sup>&</sup>lt;sup>1</sup> Federal Procurement Data System (FPDS.gov) data with CSIS analysis.

numbers of positions to be competed); rather, A-76 laid out procedures for how such public–private competitions were to be conducted (Halchin, 2007, p. 6). The competitive process included three broad steps, once a function had been identified for competition:

- 1. issuance of a Performance Work Statement, to lay out clearly the tasks to be performed and ensure that competitors were "bidding" for the same work;
- 2. formation of a Most Efficient Organization (MEO) within the government to serve as the government's offeror; and
- 3. selection of a private competitor from the field of bidders, to compare against the government option.

After adjustments to compensate for differences in projected performance levels, to ensure balanced and fair cost comparisons, if the private bid were 10% or \$10 million less than the government option, the function would be outsourced (Commercial Activities Panel [CAP], 2002, p. 19).

#### OMB Circular A-76 Within the DoD

From the start, the DoD has been the most active agency in performing A-76 cost comparisons. After increasing sharply in the late 1970s and early 1980s, A-76 competitions within the DoD declined by over half in the latter half of the 1980s, a trend which continued into the early- to mid-1990s, when very few competitions were started (Keating, 1997, p. 4). Competitions started to increase in the late 1990s and early 2000s, but between 1997 and 2001, there were fewer cost comparisons performed, combined, than in any individual year in the early 1980s (CAP, 2002, p. 21). In the late 1990s and early 2000s, A-76 was one part of the DoD's comprehensive "strategic sourcing" initiatives, designed to cover the whole range of DoD activities (GAO, 2000, p. 3). Historically, the Navy (which has conducted the most competitions) and Air Force have had the most active A-76 cost-comparison programs, with the Army conducting about a third fewer competitions than the Navy, and the USMC and various DoD agencies each accounting for less than a sixth of the total number of competitions started by the Navy (Keating, 1997, p. 7).

Numerous studies have shown that the A-76 competitions have produced significant savings, more as a result of competitive pressures than any inherent advantage of public or private providers (Tighe et al., 1996, p. 11). The government MEOs and industry each won approximately half of the competitions, on average (Keating, 1997, p. 18). A review of several studies on savings produced through A-76 competitions showed an average savings of around 30% across a number of different functions and tasks, though that number was highly variable (ranging from 15% to 45%). One study noted that the highest savings were achieved when military billets were converted, though there are limits to which military functions can be classified as "commercial" or not inherently governmental.

#### Criticisms and Problems With A-76 Implementation

In reviewing the literature, the majority of technical criticisms of the A-76 process focus not on the policy itself but rather on the implementation of the competitions. One particularly troubling figure is seen in a RAND review of DoD A-76 cost comparisons: For every 13 cost comparisons started in the period reviewed, five were cancelled (Keating, 1997, p. 9). These cancellations happened for a number of reasons, though large delays in soliciting and preparing bids seemed to be a common cause, and studies of large functions were at greater risk of being cancelled before completion. A provision in the fiscal year (FY) 1991 DoD Appropriations Act imposing a 24-month limit on single-function cost comparisons going forward also influenced the rate of cancellations (Keating, 1997, p. x). The length of time for competitions to be completed was a recurring problem cited in the literature;

according to the aforementioned RAND study, the median time for completion was 664 days, with a mean of 810 days (Keating, 1997, p. 35). In discussions with stakeholders, the long delays were seen as troublesome by both industry and government sources, due to morale issues caused by uncertainty regarding job security (on the government side) and the inability to plan revenues and workload (on the industry side.)

The lack of post-decision follow-up on A-76 competitions was another major source of criticism. Despite some mechanisms in place, there was no consistent effort within the DoD to track whether A-76 competitions produced projected savings or met promised performance levels (GAO, 2002, p. 4). Another major area of criticism was with how A-76 was being used. The 2002 Commercial Activities Panel report evaluating government sourcing policy noted that, while A-76 functioned reasonably well as a way to compare the cost of government and private performance, it was being stretched to include evaluations of other factors it was never designed to weigh: "quality, innovation, flexibility, and reliability" (CAP, 2002, pp. 10, 41–43).

#### Moratorium

In January 2008, Congress passed legislation suspending A-76 cost competitions within the DoD (and throughout the rest of the government in March 2009), a prohibition which has been consistently renewed in the years since then. Attached to legislation continuing the prohibitions in 2010 and 2011 were calls for studies of A-76 to be completed by various stakeholders, including the DoD Inspector General (DoDIG) and the Government Accountability Office (GAO), which would be used to determine whether A-76 competitions would be allowed to resume. Although all required studies have been delivered to Congress, and many of them recommend resuming A-76 competitions, neither Congress nor the current administration have acted to revive A-76. In fact, the President's FY2013 budget request includes a provision explicitly prohibiting funds from being used for any outsourcing-related study or competition (Bailey Grasso, 2013, pp. 5–8).

#### The DoD's In-Sourcing Initiative

On April 6, 2009, Secretary of Defense Robert M. Gates announced a plan to reduce the DoD's reliance on contractors and expand its use of federal civilians to provide services (Gates, 2009). Between 2010 and 2015, this in-sourcing initiative projected the replacement of more than 30,000 contractors with DoD civilians. According to Gates' announcement, this would "restore balance" to the workforce by returning the ratio of contractors to DoD civilians to its 2001 level. A plain reading of contemporaneous budget documents indicates that the plan was also based on an assumption that federal civilians would be significantly less costly than the contractors they replaced. As a result, the DoD planned to achieve budgetary savings equal to 40% of the cost of the contractors being replaced; more recent DoD statements claimed savings of 25% (Gates, 2010). Neither figure appears justifiable—research has shown that the about 65% any savings achieved through public—private competitions derive from the competition itself, not from any intrinsic advantage on either the public or private side. The FY2010 DoD budget reflected those savings, as have subsequent DoD budget proposals to Congress.

This initiative was consistent with a variety of other legislative and policy decisions on the role of government contractors. The National Defense Authorization Acts (NDAAs) of 2006 and 2008 required the DoD to consider greater use of federal civilians. A March 4, 2009, Presidential Memorandum on government contracting required the OMB to review

<sup>&</sup>lt;sup>3</sup> See, for example, Snyder, Trost, and Trunkey (1998) and Trunkey, Trost, and Snyder (1996).



ACQUISITION RESEARCH PROGRAM: CREATING SYNERGY FOR INFORMED CHANGE policies for contracting for services (Obama, 2009). Numerous GAO and DoD IG reports have cited the DoD's over-reliance on contractors.<sup>4</sup>

A DoD report to Congress in December 2009 indicated that 17,000 additional civilian positions would be established in 2010 as the result of new in-sourcing efforts (McGinn, 2009, p. 6). Of this 17,000, half are for commercial activities, which the report states can be done at lower cost in-house. Another 42% are for commercial activities that the DoD would exempt from private sector performance on the grounds that they support readiness or workforce management needs, including the need to provide for career progression and for the "oversight and control of functions closely associated with inherently governmental work" (McGinn, 2009, p. 5). The remaining 8% is for work that the DoD has determined is inherently governmental. The reliance on cost analysis for half of the in-sourcing goals clearly puts a burden on the DoD using proper taxonomies and methodologies to compare the cost of government employees and contractors (McGinn, 2009, pp. 4–5).

The December 2009 DoD report included a number of changes from the plans announced in April 2009. One significant change was to expand the types of services affected by the initiative. The original plan focused on two budget categories—advisory assistance services and the category called "other services." However, that plan was expanded to allow managers to consider any type of contracted service for in-sourcing, including activities such as laundry services, installation maintenance, and transportation. Targeting these expanded activities for in-sourcing is only consistent with previous policy directives if cost savings can be realized. CSIS concluded at the time that the process was insufficient to validate those savings and that there were sound reasons to suspect they would not be achieved (Berteau et al., 2011, pp. 5–7).

In an August 9, 2010, statement, Secretary of Defense Gates himself de-emphasized in-sourcing, signaling that expected savings were not materializing. Subsequent statements from DoD officials have stated that existing in-sourcing initiatives by the military departments remain in full force, however (Brodsky, 2010). In the course of this research effort, discussions with DoD officials have indicated that the expected savings from in-sourcing are still built into budgets, and some within the DoD still believe that in-sourcing, in and of itself, will lead directly to large savings. The Ike Skelton National Defense Authorization Act for Fiscal Year 2011 mandates that the "Secretary of Defense shall use the costing methodology outlined in the Directive-Type Memorandum 09–007 (Estimating and Comparing the Full Costs of Civilian and Military Manpower and Contractor Support) or any successor guidance for the determination of costs when costs are the sole basis for the decision."

Recent legislative action and statements from the DoD do show a weakening of support for in-sourcing. Secretary of the Army John McHugh suspended all of the Army's insourcing activities through a February 1, 2011, memorandum on "Reservation of In-Sourcing Approval Authority." More recently, section 937 of H.R. 1540, the House version of the FY2012 National Defense Authorization Act, called for an end to the temporary moratorium on public—private competitions that was established in the FY2010 NDAA. Though this provision did not make it into the final bill, it does signal a shift in Congressional support away from in-sourcing.

The release of the Office of Federal Procurement Policy's Policy Letter 11-01, released on September 12, 2011, marks the most recent major policy development relating to the broader issue of sourcing decisions. This guidance provides a much-needed

<sup>&</sup>lt;sup>4</sup> See, for example, GAO (2006) and DoD Inspector General (2009).



framework for sourcing decisions based on three categories of work: inherently governmental, closely associated, and critical classifications. While this guidance represents a welcome step in the right direction towards clarifying the standards for declaring positions or functions inherently governmental or closely associated, various stakeholders have expressed a desire for more specific guidance going forward to help eliminate uncertainty regarding the boundaries of those categories, and the guidance for "critical classifications" has also been called ambiguous and imprecise.

#### **DoD Cost-Estimation Methodologies**

Given that the focus of DoD sourcing policy has been on issues of cost, the soundness of the cost-estimation methodologies at the heart of those policies is crucial. As CSIS has noted in previous work on the subject, however, having a repeatable, verifiable, data-driven cost-estimation methodology for calculating the cost of government performance is critical even outside the realm of sourcing policy. Particularly in times of budgetary strain such as exist today, the DoD will be making decisions about the future of programs and functions based on perceived potential cost savings. Without a rigorous cost-estimating methodology to determine the fully burdened cost of a particular function to the government as a whole (or even simply to the department), the DoD lacks a process to gather, verify, and use the data it needs to make such decisions, without which it will not know the true cost implications of the decisions it makes.

Since 2009, the cost-estimating methodology of DTM 09-007 has replaced the methodology from A-76 as the standard for use within the DoD. As has been explored in previous work by CSIS on the subject, this change did not represent an improvement (Berteau et al., 2011, pp. 9–11).

#### Directive-Type Memorandum 09-007

In-sourcing decisions made on the basis of cost depend on the ability to project accurately the relative costs of the governmental and private options. Further, even if insourcing is done for policy reasons (such as rebuilding the DoD acquisition work force), the DoD still needs to know the cost impact of these actions. Without these data, any cost comparison is no more than guesswork. In part to meet those objectives, on January 29, 2010, the Director of the Cost Analysis and Program Evaluation (CAPE) signed Directive-Type Memorandum (DTM) 09-007, "Estimating and Comparing the Full Costs of Civilian and Military Manpower and Contract Support." This DTM constitutes current DoD guidance for in-sourcing decisions, and the NDAA for Fiscal Year 2011 mandates that the

Secretary of Defense shall use the costing methodology outlined in the Directive-Type Memorandum 09–007 (Estimating and Comparing the Full Costs of Civilian and Military Manpower and Contractor Support) or any successor guidance for the determination of costs when costs are the sole basis for the decision.

Yet the procedures laid out in the DTM for calculating the government's costs for performing a service have several significant gaps. These gaps raise questions about the validity of any analysis generated on the basis of DTM guidance. The DTM is written to encourage analysts to "carefully consider" all possible costs associated with contracts, but the guidance itself overlooks many cost aspects for the government side. Among other shortfalls, the DTM

 Lacks the ability to calculate fully burdened government-wide costs. The DTM states that "manpower cost estimates normally address costs to the Department of Defense," and that "the costs of service contracts are variable



costs in the short run paid by the Department of Defense." Analysts have interpreted the lack of consistent focus on fully burdened government-wide costs to mean they could leave out costs or savings that accrue not to the DoD but to other federal agencies.

- Creates a gap by failing to account for the full cost of DoD-owned capital while requiring the inclusion of those costs for contractors. This ignores the fact that the real economic costs of capital devoted to risky commercial activities—including forgone interest and a risk premium as well as depreciation—are present regardless of whether the activity is performed by a public or private producer. The failure to consider any capital costs for government workers is a step backwards from the costing approach used under OMB Circular A-76 (see the following section), which included the cost of in-house production at a private sector rate of return on new investments. It is difficult to determine the federal cost of capital, but there is universal agreement that the cost is not zero.
- Fails to account for taxes forgone by the federal treasury or state or local governments. This is another step back from OMB Circular A-76, whose costing methodology included forgone federal taxes as a cost element for inhouse producers.
- Fails to account for the inherent risk of cost growth among public producers.
  The available empirical evidence indicates that, for competed workloads,
  subsequent cost growth depends on changes in the size and scope of work,
  not on which sector wins. The DTM approach effectively eliminates
  competition, and history says the absence of competition will cause cost to
  increase over time.
- Overlooks the cumulative cost effect of multiple in-sourcing decisions. Indirect
  costs such as the cost of payroll processing or of day-care centers do not
  increase as the result of any single in-sourcing decision, but those costs will
  likely rise as the result of the cumulative effect of a systematic in-sourcing
  initiative.
- Overlooks the imputed costs of insuring and indemnifying in-house producers. OMB Circular A-76 methodology correctly required that in-house producers take into account what it would cost if they were required to purchase casualty and liability insurance. In contrast, the DTM recognizes the costs of insurance and indemnification to private producers, but there is no mechanism in the DTM that attributes such costs to public producers.<sup>5</sup>
- Fails to account for varying workload stability. Some tasks require a rather
  constant allocation of human resources, while others experience high levels
  of volatility. While this is not a cost factor per se, the flexibility of contractors
  can provide an advantage to the government when workload is variable, and
  the lack of flexibility in the government means there is a cost to maintaining
  an unneeded workforce in that case.
- Should require a detailed scope of work as a better basis for cost estimation. Such a detailed scope of work was required as a basis for cost estimation by

<sup>&</sup>lt;sup>5</sup> Note that although the government does not buy insurance, it implicitly insures its in-house producers. The cost of purchasing insurance reflects the expected amount of these costs.



the A-76 process, which referred to that scope of work as a Performance Work Statement. Without a scope of work that accurately lays out the requirements of the task to be performed, it is impossible to ensure that the full cost of performance is captured in any cost estimate.

If the true cost of public performance of commercial services cannot be determined, any budget-driven decision becomes immediately suspect, whether the decision is to insource work currently done by a contractor or simply to change the size of a specific part of the government workforce. Such a situation gives rise to questions like "How can the DoD claim it is saving 40%, or 25%, or any specific amount via in-sourcing private-sector positions if it doesn't know how much the newly insourced function will cost?" and "How can the Office of Management and Budget approve a new government activity if it does not know the full cost impact on current and future budgets?" The DoD and the federal government should understand the full budgetary implications of every personnel decision so that it can properly weigh the benefit gained (such as improving in-house capabilities) against the budgetary impact.

#### **OMB Circular A-76**

OMB Circular A-76 provided the previous cost comparison methodology used by the DoD. Given the flaws of the DTM, it is worth considering how well the A-76 provides a basis for addressing those flaws and performing better cost estimates of government performance. As previously discussed, there were numerous problems with the implementation of A-76 cost competitions. In discussions with experts, however, there was broad agreement that, aside from the two specific problems discussed below, the A-76 costing methodology did a reasonably good job of accurately capturing the major cost elements of government performance.<sup>6</sup> Based on CSIS analysis, the A-76 performs better than the DTM in the following respects:

- provides greater specificity on major cost components,
- includes the cost of in-house production at a private sector rate of return on new investments,
- includes forgone federal taxes as a cost element for in-house producers,
- requires that in-house producers take into account what it would cost if they were required to purchase casualty and liability insurance, and
- requires a Performance Work Statement.

Of these, the most important is the fact that the A-76 provides far greater specificity on major cost components, thus providing better guidance for cost estimators on how to compute more of the range of the fully burdened cost. In contrast, the DTM provides only general explanations of how to calculate many major cost elements (aside from direct labor costs).

At the same time, A-76 still exhibits flaws which must be recognized and corrected. In reviewing the literature regarding A-76, the majority of criticism relates to the competition process itself or to the lack of follow-up after a public-sector victory to ensure performance,

<sup>&</sup>lt;sup>6</sup> It should be noted that, while the experts CSIS spoke to for this study agreed that the A-76 costestimating methodology captured most of the major cost elements, there was also broad agreement that there were serious weaknesses in the quality of the data the DoD used to calculate the totals for those cost elements.



rather than flaws in the cost-estimation methodology. Two major criticisms of the cost-estimation system itself do merit discussion, however:

- A-76 utilizes a blanket 12% overhead rate for all government functions. In discussion with stakeholders on both sides of the sourcing policy debate, as well as with former policy makers involved in A-76 drafting and implementation, there was agreement that the 12% overhead rate lacks any sound methodological basis, and that it was wholly inappropriate to have one overhead rate to cover all the disparate activities performed by the government. Industry representatives noted that private sector functions with extremely minimal overhead requirements had overhead rates two to three times higher. GAO has stated that the 12% figure came not as the result of a rigorous study of government overhead costs, but as a compromise between the government and the private sector (GAO, 1998, p. 5).
- A-76 fails to account sufficiently for the true cost of capital on the public side.
   A-76 is better in this respect than the DTM, which includes no accounting for cost of capital while forcing contractors to account for it in their pricing, but further research is needed to generate a methodology for fully capturing public-sector cost of capital.

#### **Current Policy**

Within the DoD, DoD 09-007 is still the relevant guidance methodology for sourcing policy and cost estimation. In discussions with policy makers, however, CSIS was unable to identify a single office or function that was utilizing the DTM cost-estimation methodology. Rather, each office and function uses whatever cost-estimation system they see fit, which has led to situations in which more than one function was assuming 0% overhead rates in calculating its own costs. The DTM was supposed to have been replaced with a more permanent DoD Instruction by September 2011, but that deadline has long since passed, and the revised deadline of April 1, 2013, was extended to August 2013. Indications are that the DoD Instruction will be issued no later than May 2013. In addition, the model that the DoD developed to aid in implementing the DTM will soon be available for use throughout the DoD. Also, the GAO is preparing a report for Congress on DoD guidance and compliance. The release date for this GAO report is not yet publicly available. CSIS cannot determine at this time the extent to which the DTM shortcomings cited above have been addressed in the Instruction or the degree to which the GAO will agree with those shortcomings. CSIS will update this section in the final report as further information becomes available.

Government-wide action on workforce costing also is continuing. On March 1, 2013, the Office of Federal Procurement Policy (OFPP) held a public hearing to gather information from stakeholders regarding sourcing and cost-estimation policy. According to the OFPP officials at the event, there is no impending rulemaking from the OFPP on either issue; rather, the OFPP recognizes that these are issues of concern to various stakeholders, and they are trying to "get smarter" on the issue in advance of any specific policy endeavor.

#### **Lessons From Business Literature on Sourcing Policy**

This section examines some of the relevant literature from the fields of economics and business management for insights that could help the DoD determine which services to produce in-house and which to purchase under contract or grant. The factors that private firms consider in making sourcing decisions have withstood the test of competition and may provide useful guidance. The section also considers findings from the literature on public bureaucratic behavior, as the intrinsic differences between governmental and private organizations may determine the ability to transfer findings from the private sector

experience to the government realm. Finally, it examines empirical studies that—without any theoretical preconceptions—compare the costs of in-house and contractor services or examine the outcome of competitions between DoD in-house providers and private sector contractors.<sup>7</sup>

One central and very clear finding that emerges is the correlation between competition and lower costs. For many DoD commercial activities, the cost reduction associated with competition is on the order of 20% to 40%.8 Both the business and economics literature indicate that competition provides stronger incentives for cost reduction than do managerial initiatives that monitor performance or exhort efficiency.

#### The Make-or-Buy Decision in the Private Sector

#### Sourcing Decisions From an Economist's Perspective

Firms are sized and organized to maximize the value of output less both the costs of production and the costs of the transactions that must occur between the different players involved. The literature identifies the costs of transactions and of information as important determinates of the extent to which firms will vertically integrate—and produce their own intermediate goods and services—as opposed to contracting for those goods and services from outside producers (Williamson & Winter, 1993). Transactions costs occur whenever goods or services transfer between a provider (the agent) and a user (the principal). The transactions costs associated with purchases of intermediate goods from outside suppliers include the costs of source selection, contract management, and monitoring. Those associated with in-house production include the costs of managing labor and the process of obtaining other needed inputs. Transactions between principals and the agents on whom they rely depend on governance mechanisms—including different types of contracts as well as incentives and performance monitoring. These mechanisms encourage the agents to pursue to goals of the principal.

The transactions costs associated with the use of outside providers are generally low for commercially available goods that can be purchased off the shelf and for generic commercial services that can be performed off-site—such as large-scale data entry. Accordingly, these are the kinds of goods and services that firms often choose to purchase rather than produce internally. The transactions costs associated with using outside producers are greater if the outside producer must invest in transaction-specific assets or skills that have few if any alternative uses (although long-term relationships between buyers and sellers—which in effect brings the workload closer to in-house—can help to alleviate this problem).

The basic findings of this literature are that, in the private sector, firms find that it can be cost effective to perform work in-house, rather than by contract, if:

Flexibility is required to meet rapidly changing demands.

<sup>&</sup>lt;sup>9</sup> See Simon (1991). For a nontechnical summary of the current literature, see Williamson & Winter, 1993.



<sup>&</sup>lt;sup>7</sup> The focus of this section is on sourcing decisions for activities or functions, rather than on insourcing or outsourcing individual positions within activities. Because changes in sourcing typically change the quantity of labor used, a comparison of costs position by position is usually not relevant. The special situations which lead the DoD to contract for individual positions—including some that could be inherently governmental—are set aside for purposes of this section.

<sup>&</sup>lt;sup>8</sup> The term *commercial* as used here does not mean a good or product that is readily available in the commercial sector; it means only that the activity is not inherently governmental and is similar to goods or services that are available in the private sector.

- The quality or quantity of output is difficult to measure objectively.
- In-house workloads are large and steady enough to provide economies of scale.
- The work requires highly specialized human or capital assets.
- The market is not large enough to support competition among providers.
- The work requires personnel or facilities to be co-located with those of the buyer (site specificity).<sup>10</sup>

These factors explain, in part, why it can be more difficult to contract for services than for goods. Services must often be performed at the buyer's site to meet the unique requirements of his specific production process. They cannot be produced in advance and then sold to any willing buyer, and their quality and quantity may not lend themselves to a physical examination.<sup>11</sup>

#### Sourcing Decisions From a Business Management Perspective

The business management literature on sourcing decision, although consistent with the economics literature, identifies some additional factors that influence the make-or-buy decisions of private firms. 12 Since the 1990s, this literature has emphasized that a firm's competitive advantage often rests on excellence in a few (perhaps only two or three) "core competencies." Core competencies are defined as "the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of techniques" (Prahalad & Hamel, 1990, p. 82). In effective organizations, core competencies are closely tied to the values of an organization and the identities of its managers and employees—identities which those values can help shape. 13 (This relationship is not limited to business. For example, in the military, the values of teamwork, loyalty, and honor reinforce the core competencies of combat units.)

The time and effort that senior managers can expend on non-core activities is limited. The support functions common to most producers, such as human resource management and inventory control, although essential to production, are often not among a firm's core competencies. They may not be closely monitored or controlled by the most senior managers and—if produced in-house—are not directly subject to market forces. In the absence of direct competition, in-house providers may fail to keep up with the standards—for quality and innovation as well as cost—that outside providers must meet. This literature suggests that non-core activities should be considered for outsourcing. In addition to any short-term reduction in the costs of obtaining the non-core good or service, outsourcing can

- free up management to focus on the core activities that drive the firm's competitive advantage,
- ensure access to the most cutting edge, world-class capabilities that could not be kept in-house cost effectively,
- shift risk to outside providers, and

<sup>&</sup>lt;sup>13</sup> The importance of identity in motivating performance has recently been introduced into the economics literature (see Akerlof and Kranton, 2005).



<sup>&</sup>lt;sup>10</sup> See Pint & Baldwin (1997) and Congressional Budget Office (1995).

<sup>&</sup>lt;sup>11</sup> Many IT services may lend themselves to contracting because they do not need to be performed on site.

<sup>&</sup>lt;sup>12</sup> This discussion of the business management literature draws on the work of Pint and Baldwin (1997).

gain control over what could otherwise be an in-house monopoly.

The business literature gives less emphasis to the problems that firms encounter if their outsourcing decisions are poorly conceived or implemented. One author notes that strategic decisions to outsource can be misapplied by line managers who focus narrowly on short-run cost savings:

While outsourcing may seem attractive at the strategic management level, serious pitfalls are often encountered as the strategy is pushed downward into operations. At the operational level, the strategic intent tends to be lost ... implementation is in the hands of semiautonomous teams that are often tightly focused on measureable objectives—most often, cost reduction. Outsourcing at the operational level can easily lead to the development of dependencies that create unforeseen strategic vulnerabilities. (Insinga & Werle, 2000, p. 58)

Although the DoD has adopted some of the language of the business literature, it has not always adopted the spirit. For example, within the DoD, the need for direct command and control is often cited as a reason why specific support services should be kept in-house. This is consistent with military culture in which direct authority is very powerful. Yet the business literature indicates that senior managers in the private sector can often extract more control over an outside provider of non-core goods or services, who operates competitively, than they do over an in-house monopolistic provider (a provider over whom they have, at least nominally, direct authority; Stiglitz, 1991, pp. 15–24).

Another problem in applying the core concept is that it is difficult to distinguish core from non-core competencies. The DoD's core competencies would presumably include the application of military force in support of national security objectives as well as other inherently governmental functions—including the control of public funds and decision-making that commits the Department to an action. What else it might include is unclear. For example, the DoD uses the phrase "core workloads" to explain why some depot maintenance must be kept in-house. Yet this literature suggests that specialized workloads that cannot support competition or the need to maintain the expertise to be a successful buyer might be better justifications for some in-house capabilities.

#### Making Sourcing Decisions in the Private Sector

Both the economics and the business literature indicate that workloads can exhibit characteristics that make them appropriate for in-house production, while at the same time, other features might apparently qualify them for outsourcing. Firms must consequently balance the different characteristics of a workload when making sourcing decisions. This balancing process is not very transparent. The 2002 final report of the Commercial Activities Panel, a group chaired by David Walker of the GAO, notes that private sector managers typically review the merits of in-house as opposed to purchased goods and services at a strategic level inside the organization (CAP, 2002, p. 108). One of the panel's witnesses indicated that cost is the primary consideration in only a third of private sector sourcing decisions.

Direct bidding competitions between in-house and outside providers are very rare in the private sector; the Commercial Activities Panel was unable to identify any such competition. In contrast, it is not uncommon for private firms to maintain both in-house and outside providers for non-core goods or services. The in-house operations provide a base of expertise for evaluating the performance of the specialist providers and, if the market is thin, an alternative source of supply and a form of implicit competition (Pint & Baldwin, 1997, p. 9).



#### The Nature of Governmental Organizations and the Make-or-Buy Decision

Since the DoD is a governmental organization and not a private firm focused on maximizing profits in part by minimizing costs, its decisions on outsourcing will be driven at least in part by factors not considered in the business and economics literature. Indeed, the business literature fails to explain major features of the DoD's sourcing policies. For example, a key factor shaping a private firm's decision to choose in-house production for a good or service is the proximity to its core competencies and the competitiveness, or lack thereof, of the market. Yet a recent industrial review presented to the Defense Business Board concluded that the market for the services used by the DoD was generally highly competitive, while there was no competition for the production of aircraft carriers, tanks, and ICBMs. For many decades, the DoD has contracted for the production of weapons systems while sourcing policy has focused on contracting for services, therefore acting in direct contrast to practices in the private sector. While the lack of competition for major weapons systems has many causes, a look at the literature dealing with governmental agencies and bureaucratic behavior provides some additional insight into this sourcing practice.

#### Constraints and Objectives of Public Managers

Both the classical economics literature and the more recent work on the behavior of bureaucracies suggest that public producers might, in theory, be both less anxious and less able to minimize the costs of production than their private counterparts.

From a narrow perspective, the only intrinsic difference between a public producer and a private producer is that one is owned by the government and the other by private individuals. Accordingly, the economics literature asks whether a government-owned firm, operating in a competitive market without either constraints or subsidies (such as implicit loan guarantees), would be at an advantage or disadvantage relative to a private firm. The literature concludes that public production is at a disadvantage. The owners of the private firm can more readily sell their firm on the market at a price that reflects its future net earnings. The fact that the value of the investment can be immediately realized gives the private firm better investment incentives (Alchian & Demsetz, 1972, pp. 777–795).

The literature on government agencies and public bureaucracies approaches this question from a much broader perspective. It emphasizes the fact that government agencies are embedded in a political process. A federal agency serves and depends on the support of multiple principals—including public interest groups, the administration, specific regulators, the Congress as a whole, and specific committees within the Congress. The agency will have ambiguous and sometimes conflicting goals as the result of compromises among the principals.

Decisions made by government agencies must take into account fairness and accountability in addition to efficiency. Accountability can mean making decisions in a transparent manner, using standard operating procedures, even if allowing managers greater discretion might lead to more efficient outcomes. It can also mean that decisions to commit the government to actions must be taken by a principal—an elected or appointed official, or a government employee—whose objectives are assumed to be aligned with the public interest, rather than by an agent seeking merely to meet the terms of a contract. Accountability takes on great importance whenever public funds are being expended. Not only must the process for expending funds be followed, but the agency must be able to demonstrate this clearly.

<sup>&</sup>lt;sup>15</sup> Efficiency would entail an output produced at the least cost as well as a budget set so that the benefits to society from additional output would just be worth the additional cost.



<sup>&</sup>lt;sup>14</sup> For a clear introduction, see Wilson (1991).

Fairness is of particular concern in the area of labor relations. Here the government's need to demonstrate fairness by strict adherence to standard operating procedures is further reinforced by the desire of public unions and employee groups to use similar procedures to protect workers. One result is a civil service system with its strengths—an ability to withstand demands for patronage—as well as weaknesses in terms of the limits on managers' discretion to hire, fire, promote, and pay. It is not possible for an agency to satisfy all of the conflicting objectives of its multiple principals. Yet as long as agencies' actions are seen as fair, as long as standard procedures are followed, its actions may still be accepted and criticism deflected.

In addition to broad public goals of fairness, accountability, and efficiency, the literature identifies the following as common objectives for public managers:

- providing the highest quality of output;
- getting the highest budget;
- obtaining the most modern technologies;
- being fair to suppliers, workers, and customers;
- offering continuity of employment to workers; and
- supporting suppliers who may be small or disadvantaged.<sup>17</sup>

In some cases, these reflect the goals of principals—either what they desire or what they perceive to be in the public interest. In other cases, they reflect the goals of the agency's own managers. For example, in addition to pursuing their principals' goals, managers may seek larger budgets or staffs as signals of higher prestige. Controlling their own levels of effort is also a concern. The difficulty is not so much with these objectives (many if not all of which would be shared by private managers) but that public managers may be less constrained by market forces in pursuing them. In the public sector, budget shortfalls due to inefficiency can lead to an increase in appropriated resources. The discretion of public managers to pursue their own objectives is particularly great when they are responsible to many principals with conflicting goals (Dixit, 1997, pp. 378–382).

Principals can use incentives in an effort to align their agents' actions with their goals. Alternatively, they can impose external constraints. For example, in the past, Congress has placed ceilings on DoD civilian employment levels and on the size of headquarters activities. Principals can also set performance goals (such as the percentage of commercial activities that must be contracted out or the number of positions that must be in-sourced) and monitor performance. Because the principals do not have access to much of the information held by the agents, such top down constraints and goals will often appear (and possibly be) arbitrary. The constraints reduce the discretion of the public managers while performance rewards can distort activities; without them, however, managers may not always focus on the goals that the principals feel are most important.<sup>19</sup>

Overall, the literature on the behavior of public bureaucracies rejects the notion that a federal agency in the U.S. could mimic a competitive firm—that it could (or should)

<sup>&</sup>lt;sup>19</sup> For an understanding of how performance measures can distort incentives, see Heckman, Heinrich, and Smith (1997).



<sup>&</sup>lt;sup>16</sup> See Wilson (1991, ch. 16 and 18) for a discussion of how rules and standard operating procedures protect agencies from criticism.

<sup>&</sup>lt;sup>17</sup> Many of these goals are discussed in Wolf (1988, pp. 70–77).

<sup>&</sup>lt;sup>18</sup> See William Niskanen's "budget-maximizing" model.

completely isolate itself from concerns about fairness, accountability, and public welfare that make it distinctly governmental.

Given the environment in which government agencies work, it would not be surprising if the DoD's sourcing decisions for goods and services simply reflect political realities. A reliance on in-house production for services may reflect—in addition to the site-specific and perishable nature of many services—the political strength of the civil service and the fact that the business service industry and its labor force have historically been less concentrated and powerful. For example, from an efficiency perspective, there is no reason for 14,000 civil servants to be employed selling groceries to military personnel. Although most evidence is anecdotal, one study of the outsourcing decisions of 3,000 county governments between 1987 and 1992 found quantitative evidence of the effect of politics—counties with highly unionized public employees chose to outsource less (Lopez-de-Silanes, Shliefer, & Vishnay, 1995).

#### Is It Efficient for Public Producers to Outsource More Than Private Producers?

It is worth asking if government producers—to the extent that they do seek efficiency—would find outsourcing even more attractive than do private producers. In the case of labor-intensive services, limitations in the ability of federal managers to hire, fire, promote, and pay would—even by itself—seem to dictate this. Two factors, however, may at least partially offset these motivations.

One is the need for the government, operating with public funds in the public interest, to keep fraud and conflicts of interest to a minimum. A private firm might, in some situations, outsource some of its financial management or decision-making and treat any loss due to contractor fraud or conflicts of interest as a simple cost of doing business. For a government agency, however, such losses are tied to functions that would be considered inherently governmental—something for which the agency must be directly accountable to the public.

A second reason is that the same factors that make the government less efficient as a producer of goods and services also make it less efficient as a buyer.<sup>20</sup> The literature relating to the need for reform of the civil service system is matched by that citing the need for acquisition reform. The need to demonstrate fairness and transparency, for example, can make it hard for contracts to be awarded to any but the lowest cost bidder, irrespective of more subjective concerns about performance. The balancing of competing objectives that private sector managers appear to use in making sourcing decisions, however effective over the long run, would not readily stand up to scrutiny by the GAO or an Inspector General concerned with transparency and accountability.

#### Public and Private Production: The Evidence From Outside the DoD

DoD outsourcing decisions would—in theory—be simplified if there was strong evidence that government production under competition was, empirically as well as conceptually, more costly than private production. Some commercial activities would be kept in-house because of acknowledged non-cost benefits of in-house, rather than private production. How many and which ones would remain a source of controversy, but the remaining commercial workloads—current as well as future ones—could be shifted to the private sector without the need for questionable cost analyses or disruptive direct competitions.

Economists may be willing to conclude on conceptual grounds that—in markets with strong competition and no market failure—the public sector has at least no intrinsic

<sup>&</sup>lt;sup>20</sup> For a discussion that links government problems as a buyer with the nature of public bureaucracies, see Kelman (1990).



ACQUISITION RESEARCH PROGRAM: CREATING SYNERGY FOR INFORMED CHANGE advantage over private production. Yet the DoD, faced with the concerns of public employees and the imperfections of real (and often defense-specific), as opposed to idealized, markets, might need somewhat more concrete arguments to make the case for advantages over the private sector for commercial-type activities. What does the empirical evidence, including that from the public–private competitions conducted within the DoD, indicate about the relative costs of public and private production?

In developed economies, public and private producers are not often found side by side in competitive markets, and analytical evidence about the relative performance of public and private enterprises under competition is limited. Nonetheless, there have been hundreds of studies comparing public and private productions, as well as numerous reviews of that literature.<sup>21</sup>

The findings of studies often depend on the type of data used. Comparisons between the performance of public and private enterprises in Europe have focused on industries such as steel or transportation in which economies of scale or public regulation limit competition. Many of these studies have found that public provision is less costly. In contrast, studies that focus on more competitive activities—such as waste collection, street cleaning, or routine building maintenance —that can either be performed or purchased by local governments, generally find that private provision is less costly (Borcherding, Pommerehne, & Schneider, 1982, pp. 127–156). In these studies, however, the cost differential—which is often on the order of 20% to 30%—often reflects not only any intrinsic advantage of private production but also the effects of introducing competition.

Overall, the studies that most strongly assert the efficiency of private over public production are often those that rely on the weakest evidence, and some careful reviewers doubt that there is credible evidence that private production has any intrinsic advantage in relation to public production (Stiglitz, 1991, pp. 15–24).

Overall, this literature leads to the following conclusions:

- Public production might be less efficient than private production.
- If public production is less efficient, the difference may be insignificant.
- Competition seems to drive efficiency more than does the form of ownership.

How is this empirical literature to be reconciled with what is known about bureaucratic behavior and the costs that government agencies incur in managing labor and other resources so as to both demonstrate and provide fairness and accountability?

One answer is that any public enterprise that survives in competition with the private sector on a level playing field is only public in the sense that it is a business owned by the government. If the playing field is truly level, it cannot rely on public funds or the political process for its survival and is thus by definition less of a government agency in the bureaucratic sense. Some authors suggest that, under these peculiar circumstances, its form of ownership has, in practice, changed from "public" to "private" (Boardman & Vining, 1992, pp. 205–239). The fact that the residual value of the enterprise accrues to the government rather than to private individuals may not greatly affect its efficiency.

Another answer is that the playing field may be tilted by hidden subsidies, such as forgone taxes and import duties. Some authors suggest that the apparent success of government enterprises in capital intensive industries is due in part to a hidden capital subsidy (Ayab & Hegstand, 1987, pp. 79–101). The government's borrowing rate—which

<sup>&</sup>lt;sup>21</sup> See, for example, Tighe et al. (1997).



reflects its ability to raise taxes to cover its borrowing—will typically be lower than that faced by a private firm. Yet capital devoted to a risky commercial activity is not, in any real economic sense, less costly if it is undertaken by the government rather than a private entity.

Each of these issues offers the potential for additional research. However, whether that research addresses the specific issues of the level playing field or the broader question of capital budgeting for asset amortization and depreciation, it will be years before the results are available. In the meantime, public policy needs to use available data to make the best decisions available.

#### **Towards a More Methodologically Sound Sourcing Policy**

Regardless of the future of the DoD's in-sourcing initiatives, it seems likely that sourcing policy will be a continuing source of debate and concern to policy makers going forward. In a time of budgetary uncertainty and decline, stakeholders on all sides of the issue will continue to press their cases for how the DoD can best utilize resources to execute the missions it is tasked to perform. CSIS believes that the only way for the DoD and the OMB to make meaningful progress on these issues is to develop methodologies based on the best and most complete data available. As discussed earlier in this paper, this approach will have benefits in any decision the DoD makes that has budgetary implications. Policy makers should always have the most accurate picture available of the true, fully burdened cost implications of the choices before them.

Unfortunately, the literature on how the private sector approaches sourcing decisions does not appear to offer many lessons for the public sector. The way the private sector defines core competencies and focuses on keeping those in-house may provide some useful lessons learned as the OFPP continues to refine its guidance on what functions or positions qualify as inherently governmental or closely associated. But overall, there are too many differences between the way decisions are made and how various costs and benefits are weighted to allow for useful comparisons between how public and private entities approach sourcing decisions.

In the final stages of this research effort, CSIS will be expanding upon its previous work on the subject to support the development of a repeatable, verifiable, data-driven approach calculating the cost of government performance. The CSIS approach focuses on line-item specificity for cost elements, tied to a detailed Statement of Work based on the elements in the following taxonomy (see Figure 1). CSIS has verified that data exist within DoD systems to support at a minimum the ability to calculate a range of cost estimates for each of these elements. Using the data for cost estimating and decision-making will hasten the improvement of both data and cost-estimation methodologies.

Personnel	Overhead	Facilities	Additional Costs
Direct Labor (Military	Operational Overhead - Management & Oversight	Cost of Facility	Liability
& Civilian)		Rent	Insurance
Fringe	Information Technology	Insurance	Travel
	HR/Personnel	Maintenance & Repair	Subcontracts
			Nonrecurring
Material & Supply	Legal Support	Utilities	Workloads
		Capital Improvements	Minor Items
General	Accounting		Medical Exams
Inflation	Payroll	Capital	Training
Insurance			Cost Growth
Maintenance & Repair	Headquarters Management	Cost of Capital	Conversion Costs
	Miscellaneous	Depreciation	Administration & Oversight Costs

Figure 1. The CSIS Public Cost Estimation Taxonomy (Berteau et al., 2011, p. 16)

To build upon this taxonomy, CSIS plans to incorporate OMB's Object Class Codes (OCCs) to provide even greater specificity of cost elements. OCCs are used by agencies, including the DoD, for internal financial tracking and by congressional staff for appropriations, and CSIS believes that tying a cost-estimating methodology to this widely used and well-understood cost classification system will provide a basis for a realistic, implementable methodology for capturing the true, fully burdened cost of government performance. By relying on existing data to the maximum extent possible, the DoD can find it easier to calculate better cost estimates and to use those estimates in sourcing and other budget decisions.

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