



# EXCERPT FROM THE PROCEEDINGS

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COST ESTIMATING

**An Analytical Synopsis of Dr. Ashton Carter's  
"Should-Cost" Initiatives**

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Naval Postgraduate School**

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14. ABSTRACT

**Dr. Ashton Carter, Under Secretary of Defense for Acquisition, Technology, and Logistics (USD [AT&L]), and Robert F. Hale, Under Secretary of Defense (Comptroller/Chief Financial Officer), issued a Joint memorandum on April 22, 2011, titled Joint Memorandum on Saving Related to 'Should-Cost.' As iterated in the memorandum, Dr. Carter's goal for the shouldcost initiative is to ensure that program managers (PMs) drive productivity improvements into their programs during contract negotiations and throughout program execution and sustainment. This is achievable, according to Dr. Carter, if PMs continuously perform shouldcost analysis that scrutinizes every element of government and contractor cost. In addition to the Joint memorandum, Dr. Carter issued a second memorandum on April 22 2011, for acquisition and logistics professionals, titled Implementation of Will-Cost and Should-Cost Management. This guidance is applicable for all acquisition category (ACAT) I II, and III programs. The purpose of this research is to examine the potential impacts this and related directives have on the contracting community's ability to request, acquire, audit, and utilize data germane to contract negotiations and management and whether there may be inherent potential conflicts with the commercial item acquisition provisions of Federal Acquisition Regulation (FAR) Part 12 and the contract pricing initiatives of FAR Part 15 to reduce reliance on the Truth in Negotiations Act (TINA) requirements for certified cost and pricing data and cost accounting standards (CAS), and explore strategies for implementing the directive effectively. Additionally, the research determines the nature and extent of any potential impacts on the Defense Contract Management Agency (DCMA) and Defense Contract Audit Agency (DCAA) at supporting the should-cost effort.**

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# Preface & Acknowledgements

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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 [www.acquisitionresearch.net](http://www.acquisitionresearch.net), 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)
- Office of the Assistant Secretary of the Army (Acquisition, Logistics, & Technology)
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- Director of Open Architecture, DASN (RDT&E)
- Program Executive Officer, Littoral Combat Ships

James B. Greene Jr.  
Rear Admiral, U.S. Navy (Ret.)

Keith F. Snider, PhD  
Associate Professor



# Cost Estimating

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## **Software Should-Cost Analysis With Parametric Estimation Tools**

Robert Ferguson  
*Software Engineering Institute*

## **The Use of Inflation Indexes in the Department of Defense**

Stanley A. Horowitz, Alexander O. Gallo, Robert J. Shue, Daniel B. Levine, and  
Robert W. Thomas  
*Institute for Defense Analyses*

## **Political Connections of the Boards of Directors and Defense Contractors' Excessive Profits**

Chong Wang  
*Naval Postgraduate School*

## **An Analytical Synopsis of Dr. Ashton Carter's "Should-Cost" Initiatives**

Cory Yoder  
*Naval Postgraduate School*

## **Quantifying Uncertainty for Early Life Cycle Cost Estimates**

Jim McCurley, Bob Ferguson, Dennis Goldenson, Robert Stoddard, and David  
Zubrow  
*Software Engineering Institute*



# An Analytical Synopsis of Dr. Ashton Carter's "Should-Cost" Initiatives

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## Abstract

Dr. Ashton Carter, Under Secretary of Defense for Acquisition, Technology, and Logistics (USD [AT&L]), and Robert F. Hale, Under Secretary of Defense (Comptroller/Chief Financial Officer), issued a Joint memorandum on April 22, 2011, titled *Joint Memorandum on Saving Related to "Should-Cost."* As iterated in the memorandum, Dr. Carter's goal for the should-cost initiative is to ensure that program managers (PMs) drive productivity improvements into their programs during contract negotiations and throughout program execution and sustainment. This is achievable, according to Dr. Carter, if PMs continuously perform should-cost analysis that scrutinizes every element of government and contractor cost.

In addition to the Joint memorandum, Dr. Carter issued a second memorandum on April 22, 2011, for acquisition and logistics professionals, titled *Implementation of Will-Cost and Should-Cost Management*. This guidance is applicable for all acquisition category (ACAT) I, II, and III programs.

The purpose of this research is to examine the potential impacts this and related directives have on the contracting community's ability to request, acquire, audit, and utilize data germane to contract negotiations and management and whether there may be inherent potential conflicts with the commercial item acquisition provisions of Federal Acquisition Regulation (FAR) Part 12 and the contract pricing initiatives of FAR Part 15 to reduce reliance on the Truth in Negotiations Act (TINA) requirements for certified cost and pricing data and cost accounting standards (CAS), and explore strategies for implementing the directive effectively. Additionally, the research determines the nature and extent of any potential impacts on the Defense Contract Management Agency (DCMA) and Defense Contract Audit Agency (DCAA) at supporting the should-cost effort.

## Research Purpose and Objective

In response to skyrocketing program, acquisition, and contract cost on major weapons systems, Dr. Ashton Carter, Under Secretary of Defense (Acquisition, Technology, and Logistics; USD [AT&L]), and Robert F. Hale, Under Secretary of Defense (Comptroller/Chief Financial Officer), issued a Joint memorandum on April 22, 2011, titled *Joint Memorandum on Savings Related to "Should-Cost."* As iterated in the memorandum, Dr. Carter's goal for the should-cost initiative is to ensure that program managers (PMs) drive productivity improvements into their programs during contract negotiations and throughout program execution and sustainment. This is achievable, according to Dr. Carter, if PMs continually perform should-cost analysis that scrutinizes every element of government and contractor cost.

In addition to the Joint memorandum, Dr. Carter issued a second memorandum on April 22, 2011, for acquisition and logistics professionals, titled *Implementation of Will-Cost and Should-Cost Management*. This guidance is applicable for all acquisition category (ACAT) I, II, and III programs.



The objective of this research is to examine the potential impacts this and related directives have on the contracting community's ability to request, acquire, audit, and utilize data germane to contract negotiations and management and to determine whether there may be inherent potential conflicts with commercial item acquisition provisions of FAR Part 12, and Contract Pricing FAR Part 15 initiatives to reduce reliance on the Truth in Negotiations Act (TINA) requirements for certified cost and pricing data and cost accounting standards (CAS), and explore strategies for implementing the directive effectively. Additionally, the research determines the nature and extent of any potential impacts on the Defense Contract Management Agency (DCMA) and Defense Contract Audit Agency (DCAA) at supporting the should-cost effort as iterated.

It is my belief that this work will add value to the current body of work designed to create a culture of efficiency and effectiveness in Department of Defense (DoD) procurement and contracting and provide a highly referenced and readable work useful for policy-makers, practitioners, and academics.

### ***Research Questions***

The primary research questions addressed in this paper are as follows:

- What specific impact does Dr. Carter's should-cost directive have on DoD contracting as related to protocols for acquiring commercial items?
- What are the data requirement provisions under protocols for acquiring commercial items versus non-protocols for acquiring commercial items?
- Is the should-cost requirement approach, as defined in the memorandum, achievable under the commercial item acquisition provisions of the Federal Acquisition Reform Act (FARA) and the Federal Acquisition Streamlining Act (FASA), or does the memorandum call for another acquisition strategy using non-protocols for acquiring commercial items?
- If the should-cost memorandum mandates are to be achieved, what specific actions and strategies must be taken by contracting offices to support the mandate?
- Are the DCMA and DCAA able to fully support this initiative, and what specific actions must they take?
- What specific findings and recommendations can be proffered to effectively implement the should-cost initiatives?

### ***Methodology and Scope***

This research includes a thorough literature review, examination and assimilation of key policy documents, and outreach to subject-matter experts (SMEs) integral to the should-cost will-cost initiative. Specific sources include, but are not limited to, the following:

- Government Accountability Office (GAO) reports and testimony,
- existing and ongoing research efforts at the Naval Postgraduate School (NPS),
- professional information sources from major systems PM and contracting activities,
- academic literature, and
- SMEs within the DoD and other organizations.



Whenever SMEs are utilized, the DoD and NPS mandate that Institutional Review Board (IRB) protocols be followed to ensure SMEs are given full notification of a researcher's intent to use information gathered from them for research purposes. In accordance with these policies, I obtained consent from all SMEs that I consulted as part of my research for this published work.

Based on the information obtained through this research, I make conclusions and recommendations to professionals desiring a better understanding of the implementation of Dr. Carter's should-cost will-cost initiative, address concerns over potential conflicts with the FARA and FASA, and identify how the DoD may be best structured for achieving the greatest efficiencies and effectiveness at implementation.

### **Should-Cost and Will-Cost Defined**

The definitions of should-cost and will-cost are necessary for an understanding of the concepts and their applicability.

- *Will-cost* is defined as what a program weapons system is likely to cost given a non-advocate (independent) cost estimate, such as in an independent cost estimate (ICE) or independent government estimate (IGE), based primarily on historical cost incurred.
- *Should-cost* is defined as the program weapons system cost adjusted for the program's initiatives or opportunities to reduce cost below the ICE level.

The main difference between will-cost and should-cost is the extensive use of historically incurred cost for will-cost estimates versus the examination of forward-looking efforts at reducing cost in operations.

### ***Better Buying Power: Mandate for Restoring Affordability and Productivity in Defense Spending (June 2010)***

On June 28, 2010, Dr. Carter issued the first in a series of memoranda mandating affordability and efficiency in DoD spending. The memorandum for acquisition professionals, titled *Better Buying Power: Mandate for Restoring Affordability and Productivity in Defense Spending* (Carter, 2010a), laid the foundation for all subsequent memoranda issued over the next 15 months. In this memorandum, Dr. Carter called for

delivering better value to the taxpayer and improving the way the Department does business. ... We must abandon inefficient practices accumulated in a period of budget growth and learn to manage defense dollars in a manner that is, to quote Secretary Gates at his May 8, 2010 speech at the Eisenhower Library, "respectful of the American taxpayer at a time of economic and fiscal distress." (Carter, 2010a)

### ***Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending and Implementation Directive for Better Buying Power—Restoring Affordability and Productivity in Defense Spending (September 2010)***

Dr. Carter subsequently issued two memoranda, again while acting as USD(AT&L); both memoranda were dated and released on September 14, 2010. The first memorandum is titled *Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending* (Carter, 2010b) and the second is titled *Implementation Directive for Better Buying Power—Restoring Affordability and Productivity in Defense Spending* (Carter, 2010c).

The memorandum *Implementation Directive for Better Buying Power—Restoring Affordability and Productivity in Defense Spending* (Carter, 2010c) requested the Director,



Defense Procurement and Acquisition Policy (DPAP) to develop the protocols and manpower required to implement the overarching initiatives in the Better Buying Power memorandums. This request included incorporation and integration of key agencies in the protocol and manpower reviews, including the DCMA and the DCAA. An excerpt from this memorandum states,

Work with the Defense Contract Audit Agency (DCAA) and the Defense Contract Management Agency (DCMA) to develop guidance, which will clearly spell out the roles and responsibilities of each organization in those areas where duplication and overlap occur. Provide recommended guidance to me and to the Under Secretary of Defense (Comptroller) by December 1, 2010.

By October 1, 2010, you are to task DCMA to be responsible for the promulgation of all Forward Pricing Rate Recommendations. In those cases, where DCAA has completed an audit of a particular contractor's rates, DCMA shall adopt the DCAA recommended rates as the Department's position with regards to those. (Carter, 2010c)

Dr. Carter also stated,

To put it bluntly: we have a continuing responsibility to procure the critical goods and services our forces need in the years ahead, but we will not have ever-increasing budgets to pay for them. We must therefore strive to achieve what economists call productivity growth: in simple terms, to DO MORE WITHOUT MORE. (Carter, 2010c)

Acting on Secretary of Defense Robert Gates' call for obtaining greater efficiencies in DoD procurements, Dr. Carter worked with senior leaders in the acquisition community—including the component acquisition executives (CAEs), senior logisticians and systems command leaders, the Office of the Secretary of Defense (OSD), program executive officers (PEOs), and PMs—to create the Better Buying Power initiatives and guidance. The guidance potentially affected \$400 billion of the \$700 billion DoD budget spent on goods and services (\$200 billion each for weapons, electronics, fuel, etc., and \$200 billion for information technology [IT] support). Secretary Gates and Dr. Carter estimated the potential savings from the initiatives and guidance as a significant element of the targeted \$100 billion from unproductive to more productive purposes over the five-year period from 2011–2015.

Within the USD(AT&L) guidance memorandum, the should-cost protocol was addressed as a means to reduce unproductive overhead within supporting contractors and to capture reductions in contracts by informing future price and contract-type negotiations (Carter, 2010b). The following is an excerpt from Dr. Carter's September 14, 2010, Better Buying Power memorandum:

During contract negotiation and program execution, our managers should be driving productivity improvement in their programs. They should be scrutinizing every element of program cost, assessing whether each element can be reduced relative to the year before, challenging learning curves, dissecting overheads and indirect costs, and targeting cost reduction with profit incentive—in short, executing to what the program should cost. The Department's decision makers and Congress use independent cost estimates (ICE)—forecasts of what a program will cost based upon reasonable extrapolations from historical experience—to support budgeting and programming. While ICE Will Cost analysis is valuable and credible, it does



not help the program manager to drive leanness into the program. In fact, just the opposite can occur: the ICE, reflecting business-as-usual management in past programs, becomes a self-fulfilling prophecy. The forecast budget is expected, even required, to be fully obligated and expended.

To interrupt this vicious cycle and give program managers and contracting officers and their industry counterparts a tool to drive productivity improvement into programs, I will require the manager of each major program to conduct a Should Cost analysis justifying each element of program cost and showing how it is improving year by year or meeting other relevant benchmarks for value. Meanwhile, the Department will continue to set the program budget baseline (used also in ADMs and Selected Acquisition Reports (SARs)) using an ICE. We will use this method, for example, to drive cost down in the Joint Strike Fighter (JSF) program, the Department's largest program and the backbone of tactical air power for the U.S. and many other countries in the future. This aircraft's ICE (Will Cost) average unit price grew from \$50 million Average Unit Procurement Cost (APUC) when the program began (in 2002 dollars, when the program was baselined) to \$92 million in the most recent ICE. Accordingly, the JSF program had a Nunn-McCurdy breach last year and had to be restructured by the Secretary of Defense. As a result of that restructuring, a Should Cost analysis is being done in association with the negotiation of the early lot production contracts. The Department is scrubbing costs with the aim of identifying unneeded cost and rewarding its elimination over time. The result should be a negotiated price substantially lower than the Will Cost ICE to which the Department has forecasted and budgeted. Secretary Gates indicated in his Efficiency Initiative that the Service that achieved the efficiency could retain monies saved in this way; in this case the Air Force, Navy, and Marine Corps could reallocate JSF funds to buy other capabilities.

The Department will obligate about \$2 trillion in contracts over the next five years according to Will Cost estimates, so savings of a few percent per year in execution are significant.

The metric of success for Should Cost management leading to annual productivity increases is annual savings of a few percent from all our ongoing contracted activities as they execute to a lower figure than budgeted. Industry can succeed in this environment because we will tie better performance to higher profit, and because affordable programs will not face cancellation. (Carter, 2010b, pp. 3–4)

This excerpt, on close examination, promoted a forward-looking analysis of contractors' embedded practices and associated cost for production as the should-cost position on which PMs must focus, rather than on the initial and/or existing will-cost position that serves as the initial baseline for the program.

***Implementation Directive for Better Buying Power—Obtaining Greater Efficiency and Productivity in Defense Spending (November 2010)***

Dr. Carter's seven-page November 3, 2010, memorandum, titled *Implementation Directive for Better Buying Power—Obtaining Greater Efficiency and Productivity in Defense Spending*, reiterated guidance provided in prior memoranda and specified actions that the secretaries of the military departments and directors of defense agencies should execute immediately or in the time frame specified within the memorandum. The memorandum also



stated that additional actions in support of the initiatives proffered in the memoranda dated September 14, 2010, would be developed over the following weeks and months. The memorandum addressed five specific areas from the September 14, 2010, memoranda: (1) targeting affordability and controlling cost growth, (2) incentivizing productivity and innovation in industry, (3) promoting real competition, (4) improving tradecraft in service acquisition, and (5) reducing non-productive processes and bureaucracy.

Will-cost and should-cost are specifically addressed in the following excerpt from Dr. Carter's memorandum:

Effective November 15, 2010, you will establish "Should Cost" targets as management tools for all ACAT I programs as they are considered for major MS decisions. As described in my September 14, 2010, Guidance to the acquisition workforce, "Should Cost" targets will be developed using sound estimating techniques that are based on bottom-up assessments of what programs should cost, if reasonable efficiency and productivity enhancing efforts are undertaken.

These costs will be used as a basis for contract negotiations and contract incentives and to track contractor and program executive officer/project manager performance. Program performance against "Should Cost" estimates will be reported to the Office of Acquisition Resources and Analysis through Acquisition Visibility Service Oriented Architecture (AV SoA).

By January 1, 2011, you will establish "Should Cost" estimates for ACAT II and III programs as they are considered for component MS decisions. You will use "Should Cost"-based management to track performance of ACAT II and III programs. (Carter, 2010d)

Dr. Carter further invoked the should-cost initiative in addressing poor tradecraft in services acquisitions, stating,

I will issue further detailed guidance for establishing taxonomy of preferred contract types in services acquisition, but starting immediately, you will ensure that services acquisitions under your control are predisposed toward Cost-Plus-Fixed-Fee (CPFF) or Cost-Plus-Incentive Fee (CPIF) arrangements when robust competition or recent competitive pricing history does not exist. This practice will be used to build sufficient cost knowledge of those services within that market segment. You will employ that cost knowledge to inform the "Should Cost" estimates of future price and contract type negotiations. When robust competition already exists, or there is recent competitive pricing history, you will ensure that services acquisitions under your control are predisposed toward Firm-Fixed-Price (FFP) type contract arrangements. FFP should also be used to the maximum extent reasonable when ongoing competition is used in Multiple Award Contract scenarios. (Carter, 2010c)

In the preceding context, Dr. Carter wanted to build a knowledge base of cost within particular service segments where true competition is not driving the prices paid. This can only be accomplished through contract vehicles that allow for detailed submission of cost estimates in discussions and negotiations and for utilization of that data to support future contract negotiations. Hence Dr. Carter's predisposition for cost-plus-fixed-fee (CPFF) and cost-plus-incentive-fee (CPIF) contract arrangements in non-competitive circumstances.



### Programs Initially Covered by Ashton Carter’s Should-Cost Initiative

The implementation of will-cost and should-cost management initiatives was targeted at five ACAT I–III programs equally allocated in the Army, Navy, and Air Force. The five programs (shown in Table 1) vary in their current maturity and milestone attainments.

**Table 1. Should-Cost Management Example (Pilot) Programs**

Air Force	Army	Navy
Joint Strike Fighter (F-35)	Joint Air Ground Missile (JAGM)	Joint Strike Fighter (F-35)
Global Hawk Blocks 30 & 40 (GH BLK 30 & 40)	Black Hawk (UH-60M)	Hawkeye (E-2D)
Space Based Infrared System (SBIRS)	Ground Combat Vehicle (GCV)	Presidential Helo (VXX)
Evolved Expendable Launch Vehicle (EELV)	Paladin Product Improvement (PIM)	Littoral Combat Ship (LCS)
Advanced Extremely High Frequency (AEHF) Satellite System	NETT Warrior	Ohio Replacement Program

*Note.* The information in this table was adapted from Dr. Carter’s *Implementation of Will-Cost and Should Cost Management* memorandum, dated April 22, 2011.

### Should-Cost Will-Cost Implementation Memoranda Summary

The Services, Navy, Air Force, and Army, have implemented Dr. Carter’s should-cost initiative with striking similarities. Table 2 is an examination of the implementation memoranda key elements and provisions.

**Table 2. Implementation Memoranda Key Elements and Provisions**  
(Yoder, 2012)

Key Common Element	Navy Implementation— ASN (RD&A) Memo July 19, 2011	Air Force Implementation— Dept. of the Air Force Memo June 15, 2011	Army Implementation— Dept. of Army Memo June 10, 2011
Identification of Programs	Yes	Yes	Yes
Definition & Use of Will-Cost	Yes. Independent baseline for program budget and funding. External promulgation allowed.	Yes. Independent baseline for program budget and funding. External promulgation allowed.	Yes. Independent baseline for program budget and funding. External promulgation allowed.
Development of Will-Cost Protocols	Yes. CAPE ICE or service cost position. SECNAVINST 5223.3 DON SCP germane. Will-cost is the program of record estimate and the cost analysis requirements	Yes. Non-advocate baseline developed with Air Force AFPD 65-5 and AFI 65-508 for ACAT I and with approval from product or logistics center financial cost estimating	Yes. ICE existing ACAT I and managed ACAT II defined protocols extend to ACAT III programs. Will-cost estimates used for baselines for budgeting,



	description (CARD).	organization (FMC).	programming, and reporting.
Definition & Use of Should-Cost	Yes. PM develops targets using technical and schedule baselines with applied efficiencies, lessons learned, and best practices in productivity and for informed negotiations under FAR 15.407-4 and DFARS 215.407-4. External promulgation NOT allowed.	Yes. PM develops targets via driving leanness at major milestone decisions. NOT used for budgeting, programming, or reporting outside the department.	Yes. PM drives leanness through should-cost management. Incentivizes targets to performance. NOT for budgeting, programming, or reporting outside the department. Creates informed negotiations under FAR 15.407-4 and DFARS 215.407-4.
Development of Should-Cost Targets	PM responsible for targets. Developed in one or more of three ways: 1) will-cost base with discrete, measureable savings. Recommended for all programs with a will-cost estimate. 2) bottom-up estimate without a formal FAR/DFARS should-cost review. 3) bottom-up estimate with a formal FAR/DFARS should-cost review.	PM responsible for targets along with tracking and reporting. AT&L (ACAT 1D and IAMs) and SAF/AQ (or delegated PEO/DAO) approve should-cost estimates at milestones.	PM responsible for identifying savings opportunities and targets. Not applicable to quick reaction capabilities. PM determines discrete and measurable targets while maintaining realistic technical requirements and schedule. MDA approves should-cost targets. Recommended approaches: (1) will-cost base applying discrete measurable items/initiatives. (2) bottom-up approach without a detailed FAR/DFARS should-cost review. (3) bottom-up with a formal FAR/DFARS should-cost review.
Participants in Should-Cost Target	SYSCOM/PM. May seek assistance	PM with cross-functional teams.	PM with assistance from outside



Development	from the Naval Center for Cost Analysis (NCAA), DCMA, and other PM offices.	Can seek assistance from outside: the AFCAA or DCMA.	organizations such as Deputy Assistant Secretary for the Army Cost and Economics (DASA [CE]) and DCMA.
Milestone A	Will-cost estimate (initial or updated) should-cost management target (initial or update)	Will-cost estimate (initial or updated) should-cost management target (initial or update)	Will-cost estimate (initial or updated) should-cost management target (initial or update)
Milestone B	Will-cost update (initial baseline for Nunn-McCurdy metrics) Should-cost (sets internal program execution baseline) Initial to support contract actions (optional)	Will-cost update (initial baseline for Nunn-McCurdy metrics) Should-cost (sets internal program execution baseline) Initial to support contract actions (optional)	Will-cost update (initial baseline for Nunn-McCurdy metrics) Should-cost (sets internal program execution baseline) Initial to support contract actions (optional)
Milestone C	Update will-cost and should-cost. Indirect/direct contract cost reviews (optional) FAR 15.407-4 and DFARS 215.407-4	Update will-cost and should-cost. Indirect/direct contract cost reviews (optional) FAR 15.407-4 and DFARS 215.407-4	Update will-cost and should-cost. Indirect/direct contract cost reviews (optional) FAR 15.407-4 and DFARS 215.407-4
Full-Rate Production Decision/Contract	Update	Update	Update
Withholding and Distribution of Funds	Yes, delta withheld. SAE for ACAT I, MDA for ACAT II, PEO for ACAT III	Yes, delta withheld. Remains in program element. Release by service/component acquisition executive (S/CAE)	Yes, delta managed consistent with the type of contracts used in the program. When fixed-price contracts are utilized, any delta should be considered "realized" and built into the contract.
Reporting Templates	Yes	Yes	Yes

### Analysis of the Potential Impacts of Ashton Carter's "Should-Cost" Memorandum on Defense Contracting—Findings and Recommendations

The following summarizes key findings and recommendations presented in NPS-CM-12-199 (Yoder, 2012):



- Finding & Recommendation #1: FARA and FASA**  
 There is a conflict in the specific definition of *commercial item acquisition* that allows for major weapons systems procurements in limited- or non-competitive marketplaces to be characterized as commercial under FARA and FASA statutes. Current legislative proposals are under congressional review to revise the statutory definition.
- Finding & Recommendation #2: Personnel**  
 The DCMA, the DCAA, and the Services have made, and are re-capitalizing their workforce with credentialed personnel in key functional specialties needed to support the should-cost initiative. Key functional specialties include, but are not limited to, auditors and production specialists, with additional specialties in Lean Six Sigma, process management, and so forth. The personnel increases must be protected against any potential cuts to ensure that cost consciousness and reduction in systems acquisition cost can mature and flourish—continue to re-capitalize the workforce.
- Finding & Recommendation #3: Platforms**  
 The CBAR data system has recently been deployed by DCMA. This platform was established in March 2011, providing necessary single-point access to key information spanning DoD-wide contracts and relevant information required for contracting officers to produce pre-negotiation business clearances, sometimes known as business clearance memoranda (BCM), as a pre-cursor to conducting negotiations pursuant to a contract award, and data for the continued management of contracts with real-time actionable information available 24/7 via a secure network. Although the DCMA and DCAA will drive much of the data input, all DoD services and systems commands will have it, and have key roles in populating and managing data in the system. The CBAR system must be funded to maintain accurate and recent data. The data must be relevant and germane to the should-cost effort, which will take quality personnel to define, collect, and populate the data. Continued management and maintenance of this system is imperative and must have high-level support.
- Finding #4: Protocols**  
 Notwithstanding the FARA and FASA findings and recommendations mentioned previously, the protocols for should-cost analysis have been promulgated with an emphasis on flexibility. This flexibility allows program offices the highest degree of latitude in determining should-cost targets and how to achieve those targets. That information must be shared within the government for future target savings and contract negotiations. Continue to emphasize Service program office entrepreneurship at developing individual targets. Share information, internally, with other program and contracting offices via the CBAR.
- Finding & Recommendation #5: Should-Cost Target Savings Holdback**  
 There is concern that if not managed properly, holdback funds may be re-allocated for purposes other than improvements in immediate weapons systems acquisition, thus creating a huge disincentive for program offices to set aggressive should-cost targets. Senior leaders must provide incentives for the program offices to set aggressive should-cost targets, wherein the will-cost versus should-cost potential savings have a guaranteed amount or percentage; I'll call it a cost savings incentive (CSI) that can be used for



program purposes and objectives. The program office can utilize the CSI amount, which perhaps represents either the entire delta or a portion of it.

- **Finding & Recommendation #6: Metrics and Determining Success**  
Meaningful metrics to determine the efficacy of the should-cost initiative are needed by Milestone authorities, PMs and PCOs, although these metrics have yet to be developed and universally promulgated. Sound metrics for cost reductions, efficiency gains and such, must be developed and implemented to determine the efficacy of the should-cost initiative. At a minimum, an ROI can be developed and utilized, capturing the DoD's total loaded labor cost to conduct the should-cost efforts, including organic and contractor personnel dedicated to the efforts, against actual target savings achieved.

### Final Thoughts and Further Reading

*An Analysis of the Potential Impacts of Ashton Carter's "Should-Cost" Memorandum on Defense Contracting* (NPS-CM-12-199; Yoder, 2012), dated September 17, 2012, is much more comprehensive in its presentation of this topic. The original work, NPS-CM-12-199, contains 77 pages of presentation and analysis, along with an additional 95 pages of supporting appendices, for a total of nearly 175 pages—far more detailed than the information it is possible to present in this synoptic examination.

Those interested in this topic, and those who would like additional details, are encouraged to access NPS-CM-12-199 at the Naval Postgraduate School, Acquisition Research Program website ([www.acquisitionresearch.org](http://www.acquisitionresearch.org)).

### References

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