
**DoD REGULATORY AND OVERSIGHT COMPLIANCE
COST PREMIUM**

INTRODUCTION

The alleged DoD regulatory and oversight compliance cost premium was one of the first areas examined in detail and targeted for reform by AR advocates. It is therefore appropriate to begin our examination of claimed AR cost savings in this area.

The DoD regulatory and oversight compliance cost premium refers to the additional costs that the DoD is alleged to pay contractors to cover the added cost of complying with the vast array of regulations and requirements imposed on contractors by the government. This cost is claimed to be over and above what the same item would cost were it acquired by a civilian customer in a purely commercial environment.

This chapter includes two main categories of estimates:

1. Direct estimates of the claimed DoD regulatory and oversight compliance cost premium; and
2. Early estimates of overall DoD AR savings.

The direct estimates are discussed in several different groupings based on the period in which they were developed, who developed them, and the quality of the estimates. These categories are discussed more fully below.

Initial DoD estimates of overall AR cost savings are also discussed in this chapter for several reasons. Claimed savings are derived by comparing overall program cost estimates for a large number of Major Defense Acquisition Programs (MDAPs) in various stages of development or production from one budgetary period to another. At the time these savings estimates were made, few new AR pilot programs existed in the databases, and those that did exist were only in the earliest stages of the R&D process. As a result, most of the programs included in these initial AR cost savings studies were benefiting—if they benefited at all—primarily from the effects of reductions in the regulatory and oversight burden. Therefore, these estimates are included under this subsection as part of the determination of the claimed regulatory and oversight cost burden.

DEFINING THE REGULATORY AND OVERSIGHT COMPLIANCE COST PREMIUM

As noted above, an early target for acquisition reformers was the reduction of the government-imposed regulatory and oversight burden—a burden that many observers believed resulted in a significant cost premium for the DoD with little value added and that discouraged commercial firms from doing business with the DoD.

In the late 1980s and early 1990s, a large number of studies conducted both inside and outside the government concluded that the maze of special government laws, regulations, reporting requirements, and policies imposed on contractors doing business with the government had created two serious problems. First, compliance with the laws and regulations by firms, combined with the extra cost of mandated government monitoring and oversight activities, had resulted in a significant cost premium added to items procured by the government. Government regulations often require that companies comply with hundreds of costly and time-consuming reporting rules as well as with similar government-unique accounting and socioeconomic requirements. According to studies conducted at this time, government regulation increased costs to the government by 5 to 50 percent (see Table 2.1).

Second, AR advocates claimed that government-mandated procedures and standards often have not been in conformity with routine

business practices in the commercial world—as a result of which many commercial firms have consciously avoided doing business with the DoD. Commercial firms were believed to be unwilling to accept the extra costs and controls on profits or allow government access to the proprietary technical and cost data required to participate in DoD contracts. Those firms that did work on DoD contracts tended either to specialize in military work or to establish separate divisions that were fenced off from their commercial divisions so that government regulations and oversight would not impinge on commercial operations.

The unfortunate result of this situation, according to AR advocates, was twofold. First, the regulatory environment caused the DoD to pay a premium of up to 50 percent more for items it procured than would be the case for similar commercial items. Second, the DoD was denied access to lower-cost, higher-quality commercial products and processes because leading companies refused to do business with it. Many observers therefore regarded the maze of unique government requirements and standards as one of the principal barriers to true integration of the civilian commercial and military industrial bases, often called civil-military integration (CMI).

Thus, most of the DoD regulations and standards identified by early reform studies as driving up contractor costs were also seen as major impediments to civil-military industrial integration and to greater participation of commercial firms in DoD procurement. DoD reform advocates usually viewed the following categories of regulations and standards as the most egregious cost drivers and hence as the greatest barriers to CMI:¹

- Government access to commercially sensitive product cost and pricing data and certification of cost and pricing data such as those required by the Truth in Negotiations Act (TINA);
- Government-imposed accounting and reporting standards and systems such as Cost Accounting Standards (CAS), the Cost/Schedule Control System Criteria (C/SCSC), and the Material Management Accounting System (MMAS);

¹See Perry, *Acquisition Reform—Mandate for Change*, and Perry, *Specifications and Standards*.

- Audit and oversight requirements such as Defense Contract Management Area Operations (DCMAO) program reviews, Defense Contract Audit Agency (DCAA) audits, and Contractor Purchasing System reviews;
- Complex contract requirements and statements of work (SOWs);
- Socioeconomic and mandatory source requirements; and
- Government ownership and control of technical data.

Table 2.1
Early Subjective Estimates of the DoD Regulatory and Oversight Cost Premium^a

Study	Date	Estimated DoD Cost Premium/Potential Cost Savings (%)
Honeywell defense acquisition study (20 programs, contractor costs)	1986	13
RAND OSD regulatory cost study (total program costs)	1988	5–10
OTA industrial base study (total DoD acquisition budget)	1989	10–50
CSIS CMI study ^b (cost premium on identical items)	1991	30
Carnegie Commission (total DoD acquisition budget)	1992	40
ADPA cost premium study	1992	30–50

^aThe full titles of these studies are as follows: *Defense Acquisition Improvement Study*, Honeywell, May 1986, G. K. Smith et al., *A Preliminary Perspective on Regulatory Activities and Effects in Weapons Acquisition*, Santa Monica: RAND, R-3578-ACQ, March 1988; Office of Technology Assessment, *Holding the Edge: Maintaining the Defense Technology Base*, Vol. II Appendix, Washington, D.C.: USGPO, April 1989; *Integrating Commercial and Military Technologies for National Security: An Agenda for Change*, Washington, D.C.: Center for Strategic and International Studies, April 1991; *A Radical Reform of the Defense Acquisition System*, Carnegie Commission on Science, Technology and Government, December 1, 1992; and *Doing Business With DoD—The Cost Premium*, American Defense Preparedness Association, 1992.

But exactly how much money could regulatory and oversight reform be expected to save? As shown in Table 2.1, most of the early studies that examined this question used qualitative or theoretical analyses, backed up at best by limited data. Definitions and methodologies often varied significantly from study to study. Not surprisingly, estimates of the size of the cost premium, and thus of the potential savings from regulatory reform, varied dramatically. For example, the Office of Technology Assessment estimated a potential cost savings of 10 to 50 percent in the total DoD acquisition budget, while another study conducted by the American Defense Preparedness Association calculated that product costs for the DoD could be reduced by 30 to 50 percent. Yet at roughly the same time, a more rigorous and considerably more conservative study conducted by RAND suggested that potential savings in terms of total program costs were in the range of only 5 to 10 percent.

Although these and other studies sometimes lacked precision or analytical rigor and offered widely different assessments of potential savings, they nonetheless had significant impact. Many influential members of Congress, as well as senior DoD officials and defense analysts, accepted the studies' basic premise that the DoD regulatory burden (1) imposed a significant cost compliance premium on DoD procurement, and (2) prevented participation of the commercial sector in weapon system development, thereby further raising costs and lowering quality.

In response to these concerns, Congress passed Section 800 of the National Defense Authorization Act of 1990, which required that the DoD establish a panel of experts from government, industry, and academia to evaluate changes to DoD acquisition regulations. The "Section 800 Panel" recommended eliminating or changing about one-half of the 600 statutes it identified that affect DoD acquisition. The panel's findings were submitted to Congress in January 1993 for legislative action.²

²See Statement of the Under Secretary of Defense for Acquisition and Technology, Honorable Paul G. Kaminski, Before the Acquisition and Technology Subcommittee of the Senate Committee on Armed Services on Defense Acquisition Reform, Committee on Armed Services, U.S. Senate, March 19, 1997.

Based on the Section 800 Panel findings and the work of former Vice President Gore's National Performance Review, the DoD developed an AR strategy that then-Secretary of Defense William Perry presented to Congress in February 1994 in his document titled *Acquisition Reform—Mandate for Change*. This document called for a much more flexible, commercial-like acquisition approach that emphasized the importance of CMI and the acquisition of commercial products, technologies, and processes. A Deputy Under Secretary of Defense for Acquisition Reform was also appointed and a Process Action Team (PAT) was formed to examine the reform of military specifications and standards (mil specs) and reductions in government regulation and oversight of contractors. The PAT's report called for replacing mil specs with performance specifications or existing commercial standards wherever practical. Secretary Perry ordered the implementation of these recommendations in June 1994.³

In many instances, reducing the regulatory burden and promoting CMI required legislative action by Congress. Accordingly, many of the DoD's AR concepts were incorporated into the Federal Acquisition Streamlining Act (FASA) of 1994. FASA greatly simplified DoD procedures for purchasing relatively low-cost, low-risk commercial products and services. The act also changed the definitions of commercial and nondevelopmental items and exempted these items from many DoD acquisition regulations and requirements. Finally, FASA authorized the establishment of Defense Acquisition Pilot Programs (DAPPs) to test out more radical modes of AR.⁴

³See Perry, *Specifications & Standards*.

⁴More is said on DAPPs below. Signed on October 13, 1994, FASA sought to make government acquisition of commercial goods and services easier. Toward this end, it (1) expanded the definition of commercial items; (2) automatically exempted the purchase of commercial items from more than 30 government-unique statutes; (3) removed the requirement for cost and price data on commercial contracts; (4) raised the threshold for the application of TINA to \$500,000; and (5) expanded the information provided to all competitors after contract award to reduce formal protests. The Federal Acquisition Reform Act of 1996 (FARA) made additional changes in efforts to promote even greater government access to the commercial marketplace by further simplifying procedures for purchasing certain categories of commercial items. See Office of the Under Secretary of Defense, Acquisition and Technology, *Overcoming Barriers to the Use of Commercial Integrated Circuit Technology in Defense Systems*, October 1996, Appendix B.

THE COOPERS & LYBRAND STUDY

Yet much of the regulatory burden imposed on contractors was not based directly on legislation, arising instead from unique DoD rules and requirements. In early 1994, Secretary Perry tasked a private consulting firm, Coopers & Lybrand (C&L), to undertake a detailed analysis of the costs of industry compliance with these regulations so that the DoD could target the most important cost drivers in its quest for acquisition regulatory reform. C&L then conducted an extensive data collection effort at ten defense contractor sites⁵ focusing on 130 DoD regulations and standards that were identified by the Section 800 Panel and by other studies as being major cost drivers and impediments to CMI.

C&L explicitly evaluated only the direct costs of compliance with DoD regulations. By and large, these costs should be considered overhead costs associated with data collection, report and proposal preparation, inspection, auditing, and the like. C&L did not include the potential additional cost savings of using commercial standards, processes, technologies, parts, and components. In addition, C&L applied a methodology based on “activity-based costing” (ABC) and examined only the portion of the contract cost that was value-added by the contractors under investigation. Using these assumptions and this methodology, C&L concluded that on average, the DoD paid a regulatory cost premium of approximately 18 percent.⁶

C&L’s findings, reported to the DoD in December 1994, proved to be a highly influential and often-cited document. First and perhaps most significantly, it was widely considered to be the first truly objective assessment of the DoD regulatory cost premium—i.e., the first to be based on a detailed assessment of an extensive and sys-

⁵These sites were Allison Transmission (a subsidiary of General Motors), Beech Aircraft (a division of Raytheon), Boeing Defense and Space Group, Rockwell Collins Avionics and Communications Division, Hughes Space and Communications Company (a subsidiary of General Motors), Motorola Government Systems Technology Group, Oshkosh Truck-Chassis Division, the Timken Company, Teledyne Ryan TCAE Turbine Engines, and Texas Instruments Defense Systems and Electronics Group. Some of these companies have since merged or been acquired by other entities.

⁶See Coopers & Lybrand/TASC, *The DoD Regulatory Cost Premium: A Quantitative Assessment*, December 1994.

tematically collected database. Second, although it tended to be on the lower end of the spectrum of earlier studies of the DoD cost premium as discussed above, the C&L study seemed to show that significant savings were still potentially achievable through reductions in DoD regulation and oversight. This is particularly true because C&L explicitly excluded any savings that might result from greater use of commercial technologies, processes, and parts. In other words, the estimated 18 percent DoD cost premium was due solely to compliance costs with DoD-unique regulations. Third, the C&L study suggested that large savings could be gained by eliminating or reforming only a handful of regulations. It found that the top three cost drivers accounted for more than 20 percent of the total average DoD regulatory cost premium, while the top ten accounted for about half, as shown in Table 2.2. Finally, the study concluded that the top 24 cost drivers accounted for 75 percent of the DoD cost premium.

A brief description of the top ten C&L cost drivers follows.

- As indicated in Table 2.2, **MIL-Q-9858A** was identified as the most significant cost driver. This is an umbrella standard that establishes a basic framework for implementing quality control measures in all areas of contract performance. C&L found that it required excessive documentation and reporting as well as unnecessary and repetitive testing compared to widely accepted commercial quality control standards such as ISO-9000.

Table 2.2

DoD Regulatory Compliance Cost Premium: C&L Top Ten Cost Drivers

Cost Driver	Percentage of Total Cost Premium
1. MIL-Q-9858A	10.0
2. TINA	7.5
3. C/SCS	5.1
4. Configuration management	4.9
5. Contract requirements/SOW	4.3
6. DCAA/DCMAO interface	3.9
7. CAS	3.8
8. MMAS	3.4
9. Engineering drawings	3.3
10. USG property administration	2.7

- **TINA** was found to require highly detailed certified cost and pricing data in contract proposals. The data must be generated and supplied at least three times during the contract process. Compliance costs were found to be high in part because of government auditing requirements. Criminal penalties can be imposed on company officials if irregularities are found in cost and pricing data which have been submitted in proposals.
- The **C/SCS** category in Table 2.2 includes the DODI 5000.2 Cost/Schedule Status Report (CSSR), Defense Federal Acquisition Regulation (DFARS) 252.234-70001 Cost/Schedule Control System Criteria, and MIL-STD-881 Contract Work Breakdown Structure. Compliance costs for C/SCS were found to be high because of detailed and burdensome reporting and tracking requirements that are not routine in usual commercial practice.
- **Configuration management** is based on MIL-STD-973. Although tracking and documenting engineering changes are considered to be crucial tasks, industry argues that MIL-STD-973 requires excessive documentation and is too complex.
- **Contract requirements** and **SOW** issues refer to the extreme complexity of DoD contracts compared to commercial contracts and to the imposition of process requirements.
- Some contractors perceive DoD on-site **DCAA** and **DCMAO** representatives as engaged in unnecessary and costly intrusions into their normal business and manufacturing activities.
- **Cost accounting standards** impose government-unique cost accounting requirements that vary from standard commercial practice.
- The **MMAS** requires that contractors collect extensive cost data by contract on materials.
- DoD requirements for **engineering drawings** vary considerably from standard commercial practice.
- Finally, **government property administration** rules impose complex and costly bookkeeping requirements on contractors who use government-owned equipment.

One reason the C&L study was so influential is that its broad conclusion appeared to be confirmed by other studies. The Principal Deputy for Acquisition, U.S. Army Material Command (AMC), for example, directed NORCOM, a private consulting firm, to undertake a study similar to that of C&L with the goal of determining the cost of Army contractors' compliance with DoD regulations. NORCOM's AMC study applied activity-based cost analysis to data collected from six U.S. Army contractors, most of whom specialized in military-unique items such as machine guns. In its final report dated May 1994, NORCOM estimated that the weighted-average DoD regulatory cost premium amounted to 27 percent.⁷ This number is close to C&L's estimate of a 22 percent regulatory compliance cost for companies that produce military unique items for the DoD. NORCOM's top four cost drivers were also similar to those of C&L, even though the AMC study used either broader categories or categories that were not exactly comparable in other ways. Thus, in the AMC study, government quality systems, auditing and accounting requirements, and contracting and pricing regulations accounted for more than 50 percent of the DoD regulatory compliance cost premium.

EARLY RESULTS OF DoD INITIATIVES TO REDUCE THE DoD REGULATORY AND OVERSIGHT BURDEN

In response to the C&L study and to similar studies such as the NORCOM effort, the DoD established the Regulatory Cost Premium Working Group to investigate reforming or eliminating the top C&L cost drivers. In September 1994, the DoD also established the DoD Reducing Oversight Costs Reinvention Laboratory. Ten contractor sites participated along with government officials from the Office of the Secretary of Defense (OSD), the Defense Contract Management Command (DCMC), and DCAA.⁸ The participants conducted exten-

⁷See *Activity-Based Cost Analysis of Cost of DoD Requirements and Cost of Capacity: Executive Summary*, NORCOM, May 1994. The average cost premium was derived by applying a weighting to the results from each of the six firms based on total sales revenue and total DoD business.

⁸The ten sites were at Boeing, Seattle, Washington; Northrop Grumman, Hawthorne, California; Hughes Missile Systems, Tucson, Arizona; Lockheed Martin, Fort Worth, Texas; Loral Vought, Grand Prairie, Texas; Texas Instruments, Dallas, Texas; McDonnell Douglas, St. Louis, Missouri; Magnavox, Fort Wayne, Indiana; Lockheed Martin, Moorestown, New Jersey; and Raytheon, Bedford, Massachusetts.

sive cost/benefit analyses on reducing oversight and regulatory requirements and reported their results in a manner that was based on the C&L categories.⁹

By mid-1995, the results of these efforts began to be reported back to the high-level DoD leadership. These results, however, were somewhat less encouraging than initial expectations. The Regulatory Cost Premium Working Group focused its primary efforts on actions to mitigate the effects of the top 24 cost drivers, identified by the C&L study, which accounted for 75 percent of the DoD regulatory cost premium. According to the C&L study, these 24 cost drivers led to an average DoD cost premium of 13.4 percent. The Working Group eventually concluded, however, that the DoD could reasonably expect to achieve cost savings of only 46 percent of the cost premium claimed by C&L for the top 24 cost drivers, for a total estimated average cost savings of only 6.3 percent. This was because the Working Group concluded that retention of some elements of the regulations identified as the top 24 cost drivers was necessary for maintaining public trust and pursuing beneficial aspects of oversight. The Working Group also pointed out that even the potential of 6.3 percent savings was probably optimistic because it did not reflect the implementation costs of reform and the substitution of new measures where necessary.¹⁰

Meanwhile, an extensive General Accounting Office (GAO) study of the Reducing Oversight Costs Reinvention Laboratory effort also concluded that the C&L estimates of the potential savings from mitigating the DoD regulatory and oversight burden were probably optimistic. GAO reported that five of the ten participants in the Reinvention Laboratory had prepared their own estimates of the cost impact at their sites of the top ten C&L cost drivers. These estimates ranged from 1.2 to 6.1 percent compared to the C&L estimate of 8.5

⁹See U.S. General Accounting Office, *Acquisition Reform: Efforts to Reduce the Cost to Manage and Oversee DoD Contracts*, GAO/NSIAD-96-106, April 1996.

¹⁰See Office of the Under Secretary of Defense, Acquisition and Technology, Acquisition Reform Senior Steering Group, DoD Regulatory Cost Premium Working Group, *Updated Compendium of Office of Primary Responsibility (OPR) Reports*, June 1996; and Office of the Under Secretary of Defense (Acquisition and Technology), Acquisition Reform Senior Steering Group, DoD Regulatory Cost Premium Working Group, *Compendium of Office of Primary Responsibility (OPR) Reports*, June 30, 1995.

percent. In addition, participants experienced little success in addressing nine of the top ten cost drivers. Almost all projected savings came from converting from the mil spec quality control system (MIL-Q-9858A) to commercial or international standards.¹¹

Based on the lessons learned from the Reducing Oversight Costs Reinvention Laboratory effort, the DoD developed the Single-Process Initiative (SPI), which was launched by Secretary Perry with a widely circulated memo in December 1995.¹² SPI is intended to reduce the DoD cost premium and to eliminate many of the regulatory barriers identified by the C&L study as major DoD cost premium drivers by promoting block changes to the manufacturing and management requirements of all existing contracts on a facility-wide basis. Its goal is to eliminate multiple, duplicative, and government-unique management and manufacturing processes at defense contractor installations—processes required by numerous existing defense contracts and DoD regulations—and to replace them with commercial or internationally accepted management and manufacturing processes that are standardized across all contracts at the same facility.¹³

Since the launching of the initiative, SPI has clearly achieved many successes. By October 1998, 300 contractor facilities, including representatives of more than 80 percent of the top 200 DoD contractors, had participated in SPI. A total of more than 1000 block change modifications had been accepted out of nearly 1500 that had been proposed.¹⁴

DCMC closely tracked the progress of SPI and collected considerable data on SPI cost savings and cost avoidance, which were certified by DCAA. Since the data are collected primarily by facility and by broad category of block change, however, it is difficult to estimate the overall regulatory cost premium savings that have accrued to DoD

¹¹General Accounting Office, *Acquisition Reform: DoD Faces Challenges in Reducing Oversight Costs*, GAO/NSIAD-97-48, January 1997.

¹²See Secretary of Defense William J. Perry, *Common Systems/ISO-9000/Expedited Block Changes*, December 6, 1995.

¹³See Office of the Deputy Under Secretary of Defense (Acquisition Reform), *Single Process Initiative, Acquisition Reform Acceleration Day Stand-Down*, 1996.

¹⁴Defense Contract Management Command, *Single Process Initiative Implementation Summary*, October 9, 1998.

for procurement.¹⁵ Many of the estimated savings are clearly due to the adoption of “best business practices” or aspects of lean manufacturing and thus should not be directly attributed to the removal of the DoD regulatory compliance cost burden. In late 1998, DCMC data showed that SPI had resulted in some \$30.3 million in direct cost savings to the DoD (“negotiated consideration”) and in roughly \$475.2 million in “extended cost avoidance,” defined as estimated cost savings over the lifetime of all contracts affected by the block changes.

As a crude measure of the relative scale of these savings, a comparison can be made to the overall DoD procurement and RDT&E budgets. As a percentage of the FY98 procurement and RDT&E budgets, the total direct cost savings from SPI amount to only 0.03 to 0.04 percent. The total lifetime cost avoidance to date from SPI stood at some 0.5 percent of the DoD’s FY98 procurement and RDT&E budget. Interestingly, one contractor who explicitly attempted to calculate the savings from SPI on a specific program also came up with a savings of 0.5 percent. While these are not particularly precise or revealing comparisons, they do not contradict the consensus view that began to emerge in 1995 that the C&L estimates for potential DoD cost premium savings were too high.

For some data from specific pilot programs, at least some of the factors identified by the C&L study can be examined in isolation for their contribution to total cost savings. These data, although limited, are in the same general range as the final estimates of the Reducing Oversight Cost Reinvention Laboratory and the DoD Regulatory Cost Premium Working Group. Two examples are discussed below.

The breakouts of AR categories for the Wind-Corrected Munitions Dispenser (WCMD) and the Fire Support Combined Arms Tactical Trainer (FSCATT), which are shown in later sections of this report and which are attributed to the category of regulatory and oversight burden, show numbers similar to the other sources discussed above. For WCMD, 3.5 percent of the costs of a traditional R&D program were saved (3.2 percent for production) by reducing an identifiable

¹⁵There are 40 reporting categories, few of which clearly correlate with C&L cost drivers or specific programs. Examples include Quality-Calibration, Manufacturing-Management, Quality-Supplier, and Logistics-Packaging.

factor attributable to the category of regulatory burden as defined here (see Table 7.2).¹⁶ In the case of FSCATT, roughly 2 percent of the likely traditional program costs were expected to be saved by reducing the regulatory burden. Finally, a draft study conducted by the U.S. Air Force Material Command (AFMC) showed that the savings from a major component usually included in the regulatory burden category resulted in a 2.3 percent savings for the total production contract for the B-2 Air Vehicle #1 Upgrade program.¹⁷

EARLY NON-DoD ASSESSMENTS OF OVERALL DoD AR SAVINGS

Finally, in this subsection we also quickly review initial attempts during the Clinton administration to estimate overall savings on all programs from AR. The reason these estimates are included here is that the vast majority of programs included in the databases that supported these early estimates had been under way for some time as traditional programs. Little time had passed since the beginning of the new phase of AR to permit radical AR pilot programs to truly get under way. Thus, it is not unreasonable to assume that the cost savings—if any—that are identified in these studies are due largely to a reduction in the regulatory and oversight compliance cost premium, which was the initial AR target of opportunity for the DoD.

An important early goal of AR advocates was to collect data demonstrating the cost benefits of AR. In 1995, officials in the Office of the Under Secretary of Defense, Acquisition and Technology (OUSD [A&T]) became concerned with the lack of consistent methodologies and measures of merit in the reporting of AR savings. In March 1996, OSD officials thus tasked the services and the Defense Logistics Agency (DLA) with providing uniform AR cost savings data. The methodology eventually adopted depended on comparing program budgets in the 1997 President's budget (97PB) to the 1995 President's

¹⁶The WCMD assessment attributes these savings to the elimination of Contractor Data Requirements Lists (CDRLs).

¹⁷*Acquisition Reform Cost Savings and Cost Avoidance: A Compilation of Cost Savings and Cost Avoidance Resulting from Implementing Acquisition Reform Initiatives*, AFMC draft report, December 19, 1996. This B-2 upgrade program benefited from a large reduction in the number of CDRLs that had to be prepared for the government.

budget (95PB). In addition, the services were required to provide estimates of program savings out to fiscal year 2002 (FY02). This exercise resulted in a total DoD savings estimate of \$29 billion.

At least three outside studies examined these or similar data for the purpose of independent analysis, and all three raised serious doubts about the level of savings claimed by the services. However, at least two of the studies estimated savings that are well within the range of savings estimated by the Reducing Oversight Costs Reinvention Laboratory and the Regulatory Cost Premium Working Group.

The first study originated when OUSD (A&T) requested that RAND assist OSD in analyzing the service data. Specifically, OSD asked RAND to help standardize the data and conduct a preliminary analysis. Toward this goal, RAND assessed 70 MDAPs using Selected Acquisition Report (SAR) data. The RAND study concluded that the total estimated savings amounted to \$22 billion but that the bulk of the reported cost reductions represented future cost avoidance expected in FY02 and beyond. The study estimated that the actual AR cost savings for FY95 through FY01 amounted to some 3.5 percent of total program budgets. If cost avoidance for this period is included, the total rises to 4.4 percent.¹⁸

Another study, carried out mostly in 1996, used a similar approach and yielded similar results. This study, conducted by a Coast Guard officer and published as a master's thesis in the Management of Technology program at MIT, conducted a detailed examination of 23 MDAPs reporting significant AR success and compared estimated cost savings to actual program budget data. The study concluded that average cost savings plus cost avoidance equaled 4.3 percent—almost the same figure produced by the RAND study.¹⁹

Finally, a GAO study published in October 1997 analyzed the service reports of AR savings using a methodology similar to the 1996 RAND study. The GAO study also concluded that the service-reported AR

¹⁸John Schank, Kathi Webb, Eugene Bryton, and Jerry Sollinger, "Analysis of Service-Reported Acquisition Reform Reductions: An Annotated Briefing," unpublished research, September 1996.

¹⁹Lieutenant Commander Michael H. Anderson, *A Study of the Federal Government's Experiences with Commercial Procurement Practices in Major Defense Acquisitions*, Cambridge, MA: Massachusetts Institute of Technology, June 1997.

savings were overstated. It noted that only about 25 percent of the \$29 billion in reported savings represented reductions from approved budgets and took place between FY95 and FY02. GAO also evaluated and compared SAR data from 1993 and 1995 for 33 weapon programs that accounted for more than 60 percent of the reported AR savings, and it found that more than two-thirds of these programs actually experienced cost growth after adjustments were made for inflation and quantity changes. The average for all 33 programs was a cost growth of 2 percent. GAO concluded that AR savings did not necessarily lead to reductions in overall program costs because the cost savings were offset by cost growth elsewhere or by reinvestments in the programs.²⁰

It is important to emphasize, however, that GAO did not dispute the claim that AR produces real cost savings. Rather, it argued that those savings were (1) overstated by the services, and (2) often offset by other factors, resulting in no reduction in overall program costs. Yet even the GAO analysis showed that 10 of the 33 programs evaluated showed real overall program cost savings ranging from 0.3 to 19 percent, with an average cost decrease of 4 percent. Thus, GAO's 4 percent savings for the ten successful programs is very close to the RAND number of 4.4 percent and to the MIT number of 4.3 percent.

ADDITIONAL OBSERVATIONS FROM INDUSTRY AND GOVERNMENT INTERVIEWS

In 1998, RAND researchers interviewed a wide range of managers at most of the main facilities where Boeing, Lockheed Martin, and Raytheon design and develop fixed-wing military aircraft. One area of discussion covered their experiences with AR and its potential cost savings. Managers representing some of these companies' commercial aircraft divisions were interviewed. In addition, some major military avionics companies were interviewed. Finally, RAND interviewed various government officials involved in AR issues, in-

²⁰U.S. General Accounting Office, *Acquisition Reform: Effect On Weapon System Funding*, GAO/NSIAD-98-31, October 1997.

cluding representatives of the DoD, some of its agencies, and the three services.²¹

This subsection reports interviewees' views on the DoD regulatory and oversight compliance cost premium and on the initial estimates of overall DoD AR cost savings as discussed above. A later subsection provides the views of industry and government officials interviewed on other aspects of AR. To avoid disclosing proprietary information, specific companies and programs are usually not mentioned in the body of this subsection.

Almost all contractors interviewed strongly agreed that the C&L study and similar studies were correct in concluding that the traditional DoD regulatory and oversight regimen imposes a significant cost premium on DoD purchases. However, nearly all contractors believed that the potential savings were exaggerated, and nearly all had concerns about the implementation of regulatory reform. In summary, contractors made the following points:

- In principle, savings can be realized from reducing the DoD regulatory and oversight burden, but C&L's estimates of potential savings are too optimistic.
- It is difficult to separate out overhead savings due to AR from those due to other factors. Any AR overhead savings are probably overwhelmed by the decline in the business base.

²¹Foreign contractors were also interviewed. Industry sites visited include Boeing Military Aircraft and Commercial Aircraft, Seattle, Washington; Boeing McDonnell Military Aircraft and Missile Systems, St. Louis, Missouri; British Aerospace Military Aircraft and Aerostructures, Warton and Samlesbury, United Kingdom; DaimlerChrysler Aerospace Airbus GmbH, Bremen, Germany; DaimlerChrysler Aerospace AG Military Aircraft, Munich, Germany; Lockheed Martin Aeronautical Systems, Marietta, Georgia; Lockheed Martin Skunk Works, Palmdale, California; Lockheed Martin Tactical Aircraft Systems, Fort Worth, Texas; Northrop Grumman Electronic Sensors and Systems Sector, Baltimore, Maryland; Northrop Grumman Integrated Systems and Aerostructures, Air Combat Systems, El Segundo, California; Northrop Grumman Integrated Systems and Aerostructures, Dallas, Texas; Northrop Grumman Integrated Systems and Aerostructures, Hawthorne, California; Raytheon Aircraft, Wichita, Kansas; Raytheon Sensors and Electronic Systems, El Segundo, California; and Scaled Composites, Inc., Mojave, California.

- Selective implementation of regulatory relief through waivers rather than through a permanent end to the regulations significantly reduces potential cost savings.
- Many barriers still exist to implementing the recommendations of the C&L report and other similar studies.
- Some field-level government officials are resisting full implementation of regulatory and oversight reform measures.
- Most SPI savings are really future cost avoidance. SPI savings due to regulatory relief are difficult to identify and quantify.
- The initial estimates of overall AR savings made in the 1995–1997 time frame are difficult to verify and are probably not very reliable.

Most contractors estimated that the potential savings from reform of C&L's top ten cost drivers are on the order of 4 to 6 percent, although some firms place the potential figure as high as 15 percent. Because of the implementation problems discussed below, one contractor insisted that the savings so far from trying to reform C&L's top ten cost drivers were 1 to 2 percent at most, although this contractor accepted the estimated savings potential of 4 to 6 percent with full implementation.

Most contractors agreed that, all things remaining equal, regulatory and oversight reform savings should be reflected primarily in reductions in forward-pricing overhead rates. However, some contractors noted that it is difficult to separate the effects of downsizing and mergers from regulatory reform as factors causing a reduction in contracting and other overhead personnel. Furthermore, many contractors stressed that the decline in the overall business base overwhelms any overhead reductions due to regulatory reform. None of these firms had systematically collected actual data to support AR savings claims.

Firms singled out TINA as the most onerous regulatory burden listed in the C&L top ten. Other C&L cost drivers often mentioned included C/SCS, MMAS, CAS, and MIL-Q-9858A and 1520 (corrective action procedures). The main negative cost effect of TINA, according to many industry representatives, is in the area of proposal preparation and implementation. Managers claimed that TINA-compliant pro-

posals require much more paperwork, fact-finding documentation, audits, and background information than non-TINA proposals. Several contractors noted that many TINA waivers had been granted, resulting in reduced numbers of people involved in contracts, pricing, and other aspects of proposal preparation for specific projects. Officials at one firm claimed that TINA-compliant proposals required twice the personnel that would otherwise be needed. They said this was clearly demonstrated when they prepared a commercial contract proposal for a foreign customer for a weapon system that had previously been sold to the U.S. government.

TINA waivers were said to reduce the cycle time for proposal preparation by 50 percent. Another contractor stated that because of TINA and other regulatory waivers, the company had saved roughly 10 percent of the cost of preparing one major weapon system proposal. According to a third contractor, the number of company personnel dealing with government questions on overhead rates had been reduced by three-quarters as a result of AR.

Many contractors observed, however, that the selective application of TINA and other regulatory waivers to specific programs undermined the realization of much of the potential savings. Since other programs at the same facility still required certified cost and pricing data, many of the specialized pricing and contracting personnel still had to be retained. It was also noted that TINA waivers vary from service to service. Programs were still required to provide some cost and pricing data to the government as a substitute for TINA, but since the data requirements of the services vary, even more work was generated for the contracting personnel. As a result, according to one manager, the actual reduction in contracting and pricing personnel at his facility was “nonexistent or at least very small, definitely well under 10 percent.” Thus, at one facility, an AR pilot program was being charged the same overhead rate as all the other traditional programs under way at the same facility.

Some contractors focused on other cost drivers identified in the top ten C&L list and on the problems associated with reforming them. One noted that failure to fully address the problems of U.S. government property management regulations was the “biggest failure” of regulatory reform. Many complained about perceived problems associated with reforming the C/SCS. One contractor said that the

government had made no effort to encourage replacement of the costly and cumbersome C/SCS. This contractor also asserted that replacement of this system with another would be costly and disruptive. Another contractor explained that the government required the implementation of Earned Value Management System (EVMS) reporting as a substitute for C/SCS. EVMS required the collection of cost data on at least one level below what this contractor would have done on a typical commercial program. The contractor claimed that EVMS cost millions of dollars to set up and required more than three times as many people than would be needed for the same type of work on a commercial program.

Some firms claimed to have positive, constructive relationships with on-site government personnel and government program officials, while others perceived a more adversarial and intrusive relationship. At some locations, DCMC officials had clearly reduced intrusive inspection and other activities criticized by contractors. One DCMC official noted that in the past all Material Review Board (MRB) actions had to be reviewed and approved but that DCMC had changed to random checks as part of an integrated product team (IPT). This, it was claimed, had reduced cycle time and was less disruptive. At another site, an official noted that processes that were DCMC-inspected had been reduced by two-thirds.

On the negative side, there were also many complaints. As one manager put it, “lower-level government people haven’t quite gotten the word yet about acquisition reform.” Another manager concluded:

We can buy commercial parts, but we can’t do it commercially
DCMC imposes enormous documentation requirements, even for piece parts. Acquisition reform means going from 120 pages of documentation down to 50 pages, instead of down to the one page that would be required on a commercial program.

One service official’s view that “the organizational bureaucracy resists acquisition reform” was widely held by other service AR offices.

Almost all contractors and government officials interviewed were unanimous in their praise of SPI. It was called “a real success story that permits contractors to standardize for all government customers.” Nonetheless, most admitted that the actual scale of real savings from SPI was relatively modest compared to the overall DoD

procurement budget. Most contractors and government officials agreed with the official DCMC data that showed that most SPI cost savings were really future cost avoidance. In principle, according to one contractor, SPI savings should be reflected in overhead rates, distributed direct rates, and task direct labor hours. Some OSD officials pointed out that only cost-plus contracts would benefit, not fixed-price contracts.

Many argued that it was usually difficult to match specific savings to specific SPI measures. Government officials noted that normal cost accounting procedures do not track process costs. Thus, it would be difficult to verify and audit specific SPI cost savings. They claimed that DCMC data on SPI savings are mainly ROM numbers. As one OSD official claimed, “You can’t make any global conclusions about DCMC/DCAA data. You can’t apply it to specific programs or what it means for overall acquisition reform savings.”

Finally, government officials involved in the initial collection and analysis of the data on overall AR cost savings as discussed above argued that these early estimates are difficult to verify. OSD officials were highly skeptical about the reliability of the early (1995–1996) government estimates. One official said that “your guess is as good as ours” regarding the true level of savings from AR. Service AR offices were generally equally skeptical. One service official complained that it was “extremely difficult to get accurate acquisition reform savings numbers.” Individual programs and program managers supply estimates, but there was not always uniformity in methodology and analytical approach. An OSD official’s lament that “we really don’t know what the acquisition reform savings are” was reinforced by a service official’s admission that AR savings numbers were “pulled out of the air.”

OVERSIGHT COMPLIANCE COST PREMIUM SUMMARY AND COST SAVINGS OBSERVATIONS

Based on the data available, it is impossible to provide a precise estimate of the cost savings that can be expected to accrue from regulatory and oversight reform, much less from the specific elements that go into it. It seems clear that there is some level of cost premium paid by the DoD by virtue of the regulatory and oversight burden im-

posed on contractors. The available evidence suggests, however, that a significant reduction in the regulatory and oversight cost premium is likely to result at best in only relatively modest savings. Nearly all the credible direct and indirect estimates seem to fall within a range of about 6 percent savings or less. Therefore, we believe that a plausible rule-of-thumb estimate of the potential program savings from regulatory and oversight reform is 1 to 6 percent, with an average of 3 to 4 percent. In other words, if one is using a pre-AR program (prior to 1994) as an estimating analogy for a similar new program, cost reductions at the program acquisition level of 3 to 4 percent can reasonably be attributed to reductions in the regulatory and oversight burden.

However, if the cost analysis is developed using prior program direct or indirect labor hours, most of the AR savings from reductions in regulatory and oversight burdens should already be reflected in the negotiated Forward Pricing Rate Agreements (wrap rates), so no further adjustment would be warranted in the rates themselves. This is because most regulatory burden cost savings are in the area of indirect costs and should thus show up in reduced overhead rates. Because AR has been in existence since 1995, most of the realizable reductions in regulatory and oversight burdens should already have been calculated between the contractor and the Defense Contract Management Agency (DCMA).

AR reductions between suppliers and the prime may have to be assessed separately. Factors such as regulatory flow-down and the cost effects of strategic supplier relationships need to be taken into account. Although AR focuses mainly on interactions between the government and the primes, there may be areas between primes, sub-contractors, and suppliers that result in further savings.