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Measuring the Statutory and Regulatory Constraints on DoD Acquisition

Research Design for an Empirical Study

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Over the past two decades, multiple studies have attempted to estimate the cost to major weapon system programs of complying with acquisition-related statutes and regulations. Most studies investigated the cost of compliance only at the contractor level, though program offices, the Services, and OSD would also incur such costs. A majority of these studies defined compliance cost as the additional cost of doing business with DoD. Despite substantial research in this area, few studies based their findings on actual, measured costs. Instead, most based their results on anecdote rather than the systematic collection of empirical data.

Compliance with statutes and regulations is imbedded in the working culture of the DoD organization. Personnel are taught to comply during their acquisition training, and they do not know another way of doing business. A two-star Program Executive Officer described the acquisition system as a sandbox that he knows and understands, and opined that it was not in his interest to spend what little time he had to manage his programs fighting to lower the height of the walls of that sandbox, even if that would make his and his staff’s jobs easier. The high degree to which compliance is institutionalized in a culture and in a set of processes creates an inherent difficulty in quantifying the cost of that compliance.

This research focuses on costs at the government program office level primarily because it is program managers and their staff who complain that compliance with some statutes or regulations is burdensome, and that burden translates into adverse outcomes in terms of cost, schedule, and performance. One way of capturing actual costs at the government program office level is to track the actual labor hours spent by program office staff complying with a certain statute or regulation. Linking these compliance activities to program deliverables that are in the critical path shows their effect on cost and schedule outcomes. Capturing such costs would provide a richer understanding of the actual, full cost of compliance at the program level.

**Research Objectives**

In response to long-standing complaints by weapon system program managers, OUSD(AT&L) requested that RAND empirically evaluate the cost of compliance with statutes and regula-
tions at the program office level. RAND designed a study to identify specific instances in which compliance with acquisition-related legislation or regulations has led to an identifiable penalty, such as time lost, additional cost incurred, a loss of system capability, additional demands on critical staff, or some other imposition on the program office. If no effects can be proven through the documentation process, we will identify that as well. If significant effects are found, we will develop alternative concepts for mitigating those constraints.

The study addresses the following questions:

- Which statutes and regulations are currently considered most burdensome at the program office level?
- How can we capture the actual cost of compliance with burdensome statutes and regulations?
- What is the cost of compliance at the program office level, and how much of that can be attributed to burdensome statutes and regulations?
- What measures can be taken to reduce this burden?

The first two questions constitute the first phase of this research effort, summarized in this document. This report discusses the development and pilot testing of a data collection tool capable of quantifying the impact of statutes and regulations at the program office level.

A separate report will address the second pair of research questions, including the data collection, analysis, and mitigation activities.

**Research Approach**

Interviews were conducted with current and former OSD personnel, program office staff (including Flag Officers), and senior Service officials in an attempt to identify which statutes and regulations are currently the most burdensome. Individuals in different organizations tended to define “burdensome” in ways that corresponded to their roles in the acquisition process and the perspectives of their organizations. In its simplest form, however, “burden” is defined as the perceived time and effort spent on a compliance task that appears to add little or no value to the acquisition process. The interviews were open ended in nature, with the objective of recording what these senior officials considered to be the most burdensome statutes and regulations. The responses were then categorized into several statutory and regulatory areas, and the areas most frequently cited as burdensome were identified as candidates for further study.

A Web-based data collection tool was developed and pilot tested in the E-2C and Apache program offices over two two-week data collection periods. The objectives of the pilot-phase testing were to ensure that

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1 A Major Defense Acquisition Program (MDAP) is managed by a government program office with responsibility for planning and executing the program. A program office is staffed by a combination of military, civilian, and contractor support personnel.
• program office personnel understood what we were asking for and could provide that information,
• we properly captured the key compliance activities in each area,
• the tool had no major software problems, and
• the Web-based format was instructional and easy to use.

Concurrently, an extensive literature review was conducted of past studies that identified statutory and regulatory constraints, quantified their impact, and described the mechanisms through which these impacts occurred in defense acquisition programs. While most studies looked at the cost to contractors of doing business with DoD, very few were able to quantify actual costs, leading to a high degree of uncertainty in the estimates. Results of the 1994 Coopers and Lybrand study quantifying the cost of compliance across several statutes and regulations have been by far the most widely received in the DoD community. This study calculated the cost of compliance with DoD-unique statutes and regulations at 18 percent; that is, systems purchased by DoD included an 18-percent cost premium due to compliance activities. However, these results are heavily based on estimates provided by experts at ten contractor sites.

The literature review also revealed that acquisition reform initiatives have been proposed and implemented on a continuous basis over the past several decades in an effort to reduce statutory and regulatory burdens. Broadly speaking, the same basic set of problems was identified and the same set of solutions proposed, including adopting commercial products and processes and streamlining decisionmaking within DoD. The specific content of these initiatives has varied over the years, depending on such factors as the political and budgetary environment. Many recommendations made by previous studies have been implemented and yet do not appear to have had the desired effect. This is partly due to the difficulty in quantifying the savings expected from such changes in an environment in which statutes and regulations are deeply embedded in the organizational culture. As a result, quantifying the savings from not complying with statutes and regulations, or the “path not taken,” is extremely challenging.

Identification of Burdensome Areas Through Interviews

Our interviews resulted in a list of areas that are perceived as burdensome to one or more of the following organizations: the prime contractor, the program office, and Service and OSD oversight organizations. The statements below reflect the perceptions of the officials we interviewed. RAND did not attempt to validate whether the perception of a burden in fact indicated an actual burden. Our research is designed to understand whether the perception of a burden, itself, is in fact a burden with consequences to program outcomes. The results of our analysis will be documented in a separate report.

• The Clinger-Cohen Act requires compliance reporting, perceived as burdensome, that focuses on understanding the definition of information technology (IT) and how it applies to weapon systems.
• The Core Law and 50-50 Rule require that 50 percent of DoD-wide maintenance workload be conducted at government facilities, thereby forcing the program offices to spend resources ensuring that this requirement is met.
• Reprogramming activities associated with moving program funds between accounts are seen as burdensome. Different accounts have different rules associated with expenditures and tracking of funds.
• Cost reporting requirements levied upon the contractors lead to costs incurred by the program office.
• Program status reports, such as the Selected Acquisition Report (SAR), Defense Acquisition Executive Summary (DAES), and Unit Cost Report (UCR) contain redundant information that increases reporting burden.
• The effectiveness of overarching integrated product teams (OIPTs) is reduced when the participating members do not have the authority to make decisions on behalf of the program, thereby necessitating additional briefings to senior decisionmakers.
• The Bayh-Dole Act requires, among other things, that contractors provide intellectual property rights to the government and increases government oversight requirements for managing the information.
• Some operational testing activities are perceived as mandated by the Director, Operational Test and Evaluation (DOT&E), and are considered redundant by the program offices. This is perceived to be driven primarily by the requirement that DOT&E act as an independent examiner.
• Live fire test and evaluation (LFT&E) of a weapon system is perceived as expensive, and it requires the program office staff to generate waivers if they believe that certain types of live fire testing are unnecessary.
• The Competition in Contracting Act (CICA) results in lengthy Request for Proposal (RFP) efforts in which the government solicits proposals from several contractors to foster full and open competition.
• The Truth in Negotiations Act (TINA) inhibits the participation of commercial firms that are reluctant to spend the necessary resources to disclose information on their financial accounting structures.
• DoD has routinely encouraged procurement of commercial off-the-shelf (COTS) items, but these bring costs associated with modification and issues related to availability and long-term support.
• DoD’s complex regulatory environment represents prohibitive costs to small business ventures relative to those of the prime contractors that are well versed in the statutes and regulations of the DoD organization. This potentially reduces the pool of contractors and subcontractors available to contribute to a program.
• The Buy American Act forces the government to procure items made in the United States in an age of multinational corporations, which is considered burdensome and stifling to innovation.
• Program offices typically pay for incorporating jointness and system of systems concepts in acquisition programs, while the Services and the DoD organization as a whole reap
the benefits in the form of performance enhancements through interoperability. Joint programs tend to be more difficult to manage, often involving approvals from more than one Service.

- OSD policy on the incorporation of the Joint Tactical Radio System (JTRS) in all systems currently in production requires waivers to be submitted every year, even though the radio will not be available until at least 2008. These annual submissions are therefore considered redundant and burdensome.

Officials at all levels had anecdotes describing how a particular statute or regulation affected a program, but no one was willing to provide an empirical estimate of those consequences in terms of cost or schedule. Additionally, most officials used terms such as “time spent” or “level of effort” to describe how the perceived burdens manifested at the program level.

Table S.1 lists these perceived burden areas and indicates the organizational level affected. Different organizational levels are affected differently by the same statute or regulation. Note that most of the items on the list would entail some degree of compliance activity at the program office level.

Based on the results of our interviews, the following categories were the most common burden areas across the different organizations and individuals we spoke with:

- Clinger-Cohen Act (CCA)
- Core Law and 50-50 Rule
- program status reporting (PSR)
- program planning and budgeting (PPB)
- technical data
- testing.

CCA activities relate to the management of IT embedded in weapon systems. The Core Law and 50-50 Rule entail planning and reporting activities associated with logistics. PSR deals with all activities pertaining to reporting the status of a program at the program office level. These activities include the DAES, SAR, UCR, and monthly status reports to the Service, as well as OIPT and Defense Acquisition Board (DAB) review processes. Many different statutes and regulations drive the compliance activities in PSR, including the DoD 5000 series, which governs program management. PPB pertains to all budget-related activities performed by a program, from providing input to the DoD budget process to moving funds among accounts and “what if” exercises performed in response to a real or proposed change. These programmatic changes may be caused by changes in law, directed by OSD, the Services, or Congress. The PPB area is also driven by a multitude of statutes and regulations,

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2 Since our initial interviews, the JTRS program has experienced technical difficulties that will push back the availability of the radio.

3 This category was later dropped from the study as a result of feedback during the pilot test.
Table S.1
Statutes and Regulations Perceived as Burdensome

<table>
<thead>
<tr>
<th>Statute or Regulation</th>
<th>Burden</th>
<th>Included in Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinger-Cohen Act</td>
<td>X</td>
<td>CCA</td>
</tr>
<tr>
<td>Core Law and 50-50 Rule</td>
<td>X</td>
<td>Core Law and 50-50 Rule</td>
</tr>
<tr>
<td>Reprogramming activities</td>
<td>X</td>
<td>PPB</td>
</tr>
<tr>
<td>Cost reporting</td>
<td>X</td>
<td>PSR</td>
</tr>
<tr>
<td>Program status reporting</td>
<td>X</td>
<td>PSR</td>
</tr>
<tr>
<td>OIPT process</td>
<td>X</td>
<td>PSR</td>
</tr>
<tr>
<td>Bayh-Dole Act</td>
<td>X</td>
<td>Technical data</td>
</tr>
<tr>
<td>Operational testing activities (DOT&amp;E)</td>
<td>X</td>
<td>Testing</td>
</tr>
<tr>
<td>LFT&amp;E</td>
<td>X</td>
<td>Testing</td>
</tr>
<tr>
<td>CICA</td>
<td>X</td>
<td>Not included</td>
</tr>
<tr>
<td>TINA</td>
<td>X</td>
<td>Not included</td>
</tr>
<tr>
<td>COTS</td>
<td>X</td>
<td>Not included</td>
</tr>
<tr>
<td>Costs to small business</td>
<td>X</td>
<td>Not included</td>
</tr>
<tr>
<td>Buy American Act</td>
<td>X</td>
<td>Not included</td>
</tr>
<tr>
<td>Jointness and system of systems</td>
<td>X</td>
<td>Not included</td>
</tr>
<tr>
<td>JTRS waivers</td>
<td>X</td>
<td>Not included</td>
</tr>
</tbody>
</table>

as well as institutional processes within DoD. Testing pertains to all related reporting activities, including the Test and Evaluation Master Plan (TEMP) and Operational and Live Fire Test reports, as well as interaction between the program office and Service and the OSD test organizations.

Table S.1 indicates whether each of the statutes and regulations identified as burdensome during the interviews was included in these five areas, and if so, in which area. Note that while activities associated with these five areas are perceived as burdensome to program offices, compliance activities are also often perceived as burdensome to other organizations. This study focuses only on the costs of compliance at the program office level.

**General Observations from Interviews and Literature Review**

Our in-depth review of past studies, combined with information from our interviews, led us to the following general observations:
Policy and process design, as well as how those policies and processes are actually implemented, has the greatest effect on perceived burden. Few officials at any level disagree with the intent of specific policies; it is the way in which one tries to achieve those objectives that produces a perception of burden.

The time spent complying with statutes and regulations is dominated by attempts to “work the process” to ensure that the program is executed as well as possible. This often translates as creative ways of shielding the program from any substantial adverse consequences for program outcomes related to compliance activities.

The Services differ in both culture and in how statutes and regulations are interpreted, leading to different implementation approaches and, hence, different “costs.”

Most program office personnel are generally aware of the legal basis for their statutory or regulatory compliance activities, as well as the motivational basis (intent of the statute or regulation). However, these are not foremost in their minds as they execute the program: They are simply doing their jobs. This indicates how institutionalized these acquisition processes have become.

The literature seems to suggest that consequences, if any, are relatively small. Program managers typically incorporate the time it takes to comply with rules and regulations in their program plans. With the exception of major milestones, such routine compliance activities are never on the critical path.

We treat these observations as hypotheses to be tested as part of this research effort.

Developing a Web-Based Data Collection Process

To better understand how program office officials perceive statutory and regulatory burden and to generate empirical data on compliance costs at the weapon system program offices, we developed a unique approach that combines both qualitative and quantitative methods. Based on our reading of the statutes and regulations in a particular area, we identified the specific activities necessary for compliance in that area. We listed these activities, along with appropriate definitions, on a Web site, our Web-based data collection tool. Individuals within program offices whose responsibilities included relevant compliance activities were asked to record on our Web site on a biweekly basis the time they spent on such activities. The reported hours constitute the empirical element of our approach.

We also provided space (blank text boxes) that participants could use to provide comments associated with the hours they reported against a particular activity. These comments provided important contextual information that was used in interpreting the results of the analysis. RAND researchers reviewed these comments after each reporting period was complete and contacted specific individuals directly in order to obtain additional information related to the activity. Additionally, we provided a space for participants to make general observations about their compliance activities, their perceptions of what was burdensome, and suggestions for addressing perceived problems.
The research design required participating program office personnel to report both the quantitative and qualitative information over a 12-month period. This allowed us to capture fluctuations in compliance activities associated with periodic and annual events. Our research design also included frequent site visits to participating program offices to review their input and to ask for their help in validating and interpreting the results. This follow-up approach was designed to document, whenever possible, the impact of a specific compliance activity on program cost and/or schedule through delays in meeting target dates for certain deliverables.

Pilot Phase Testing

We successfully tested the Web-based data collection tool at the E-2C and Apache program offices during March 2004. Feedback from program office personnel greatly improved the tool itself, and demonstrated that individuals in the program office could associate the time they spend on specific activities with specific statutes or regulations. The pilot test results also indicated that a significant initial effort by the program office was required in order to identify the personnel who should be enrolled in the study and that the participants would need to use the tool multiple times before becoming familiar with it. Nevertheless, program office management and staff demonstrated a willingness and ability to participate in the study.

Next Steps

We will implement this Web-based approach across eight program offices, including E-2C and Apache, for a period of one year to capture the variations within an annual budget cycle. Program office personnel will be interviewed periodically to follow up on key burdensome areas that may affect program cost and/or schedule. Such effects should be identifiable through marginal cost increases or through delays in meeting specific product delivery dates. This should provide a richer understanding of the actual cost of compliance at the program office level.

Our goal is to identify specific instances in which compliance with acquisition-related legislation or regulations has led to an identifiable penalty, such as program delays, additional cost incurred, loss of system capability, additional demands on critical staff, or some other imposition on the program office. If no effects can be proven through the documentation process, we will identify that as well. If significant effects are found, we will develop alternative concepts for mitigating those constraints.

After the completion of the data collection period, we will work with relevant OSD offices to help mitigate any significant burdens that are identified in the analysis. This might include changes to existing policies or developing alternatives to existing laws. Over the long run, the existence of empirical, quantitative data may help DoD decisionmakers design policies and processes that minimize both the perceived and actual costs of compliance.