REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY *(Leave blank)*

2. REPORT DATE
9 Apr 96

3. REPORT TYPE AND DATES COVERED

4. TITLE AND SUBTITLE
Military Privatization: A Framework for the 1990s and Beyond

5. FUNDING NUMBERS

6. AUTHOR(S)
Richard M. Bjtlich and Geoffrey P. Hickman

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
AFIT Student Attending:
Harvard University

8. PERFORMING ORGANIZATION REPORT NUMBER
96-024

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
DEPARTMENT OF THE AIR FORCE
AFIT/CI
2950 P STREET, BLDG 125
WRIGHT-PATTERSON AFB OH 45433-7765

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for Public Release IAW AFR 190-1
Distribution Unlimited
BRIAN D. GAUTHIER, MSgt, USAF
Chief Administration

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

19960531 087

14. SUBJECT TERMS

15. NUMBER OF PAGES
52

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT

18. SECURITY CLASSIFICATION OF THIS PAGE

19. SECURITY CLASSIFICATION OF ABSTRACT

20. LIMITATION OF ABSTRACT

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18
298-102

DTIC QUALITY INSPECTED 1

GENERAL INSTRUCTIONS FOR COMPLETING SF 298

The Report Documentation Page (RDP) is used in announcing and cataloging reports. It is important that this information be consistent with the rest of the report, particularly the cover and title page. Instructions for filling in each block of the form follow. It is important to ***stay within the lines*** to meet ***optical scanning requirements***.

Block 1. Agency Use Only *(Leave blank)*.

Block 2. Report Date. Full publication date including day, month, and year, if available (e.g. 1 Jan 88). Must cite at least the year.

Block 3. Type of Report and Dates Covered. State whether report is interim, final, etc. If applicable, enter inclusive report dates (e.g. 10 Jun 87 - 30 Jun 88).

Block 4. Title and Subtitle. A title is taken from the part of the report that provides the most meaningful and complete information. When a report is prepared in more than one volume, repeat the primary title, add volume number, and include subtitle for the specific volume. On classified documents enter the title classification in parentheses.

Block 5. Funding Numbers. To include contract and grant numbers; may include program element number(s), project number(s), task number(s), and work unit number(s). Use the following labels:

C -	Contract	**PR** -	Project
G -	Grant	**TA** -	Task
PE -	Program Element	**WU** -	Work Unit Accession No.

Block 6. Author(s). Name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. If editor or compiler, this should follow the name(s).

Block 7. Performing Organization Name(s) and Address(es). Self-explanatory.

Block 8. Performing Organization Report Number. Enter the unique alphanumeric report number(s) assigned by the organization performing the report.

Block 9. Sponsoring/Monitoring Agency Name(s) and Address(es). Self-explanatory.

Block 10. Sponsoring/Monitoring Agency Report Number. *(If known)*

Block 11. Supplementary Notes. Enter information not included elsewhere such as: Prepared in cooperation with...; Trans. of...; To be published in.... When a report is revised, include a statement whether the new report supersedes or supplements the older report.

Block 12a. Distribution/Availability Statement. Denotes public availability or limitations. Cite any availability to the public. Enter additional limitations or special markings in all capitals (e.g. NOFORN, REL, ITAR).

- **DOD** - See DoDD 5230.24, "Distribution Statements on Technical Documents."
- **DOE** - See authorities.
- **NASA** - See Handbook NHB 2200.2.
- **NTIS** - Leave blank.

Block 12b. Distribution Code.

- **DOD** - Leave blank.
- **DOE** - Enter DOE distribution categories from the Standard Distribution for Unclassified Scientific and Technical Reports.
- **NASA** - Leave blank.
- **NTIS** - Leave blank.

Block 13. Abstract. Include a brief *(Maximum 200 words)* factual summary of the most significant information contained in the report.

Block 14. Subject Terms. Keywords or phrases identifying major subjects in the report.

Block 15. Number of Pages. Enter the total number of pages.

Block 16. Price Code. Enter appropriate price code *(NTIS only)*.

Blocks 17. - 19. Security Classifications. Self-explanatory. Enter U.S. Security Classification in accordance with U.S. Security Regulations (i.e., UNCLASSIFIED). If form contains classified information, stamp classification on the top and bottom of the page.

Block 20. Limitation of Abstract. This block must be completed to assign a limitation to the abstract. Enter either UL (unlimited) or SAR (same as report). An entry in this block is necessary if the abstract is to be limited. If blank, the abstract is assumed to be unlimited.

★U.S.GPO:1990-0-273-271

Military Privatization:
A Framework for the 1990s and Beyond

Prepared by:

Richard M. Bejtlich and Geoffrey P. Hickman
John F. Kennedy School of Government, Harvard University
Cambridge, Massachusetts
9 April 1996

Prepared for:

Business Executives for National Security
1615 L Street NW, Suite 330
Washington D.C. 20036

Faculty Advisor: Peter Zimmerman, Associate Dean for Teaching Programs

Table of Contents

Executive Summary 1

I. Problem Statement 4

II. Application 5

III. Methodology 8

IV. Background 10

V. Case Studies 14

VI. Criteria to Measure Successful Privatization 20

VII. Policy Constraints and Considerations 25

VIII. Factors to Guide Privatization Decisions 30

IX. Prospects for Future Privatization Efforts 34

The Privatization Decision-Making Framework:

Introduced 6

Developed and Discussed 30

Appendices:

Appendix A: Inherently Governmental Functions 41
Appendix B: Summary of Privatization Cost-Savings Studies 42
Appendix C: Problems with Privatization at Columbus AFB 43
Appendix D: Commercial Activities Suitable for Privatization 44

Sources:

Works Cited 50
Interviews Conducted between November 1995 and February 1996 52

Diagram and Tables:

Diagram 1: The "Privatization" Spectrum 12

Table 1: "Privatization" Definitions 13
Table 2: Army Commercial Activities 14
Table 3: Air Force Flight Line Maintenance at Columbus AFB 19
Table 4: Description of Policy Actors and Their Interests 24
Table 5: FY 1994 DoD Commercial Activity Work Years 34
Table 6: FY 1994 DoD Commercial Activities by Major Functional Category 35
Table 7: Top 4 In-House Functions as Percentages of Total Commercial Activities 36
Table 8: Top 4 Most Heavily Contracted Out Commercial Activities, Ranked by In-House/Contracted Out Split 36
Table 9 Top 4 Least Contracted Out Commercial Activities, Ranked by In-House/Contracted Out Split 36
Table 10: FY 1995 DoD Commercial Activity Work Years 37

Executive Summary

I. Problem Statement

This report was prepared to provide the client, Business Executives for National Security (BENS), with a framework to identify defense functions suitable for privatization. This is a timely and relevant issue. The defense budget has declined 35% between 1985 and 1994, forcing key decision makers to maximize the value of dollars spent on each military function.[1] The private sector can compete for functions formerly performed by the military, a multi-billion dollar market, while the Department of Defense (DoD) benefits from cost savings through private expertise and market-driven efficiency. DoD can use these savings to fund higher priority defense programs or offset reductions imposed by budget-conscious officials.

II. Application

Successful privatization programs can offer quality service at lower cost. If the transition is rushed, the government could be denied the savings it seeks, and national security could be jeopardized. BENS can play a useful role by using our framework to target appropriate defense functions for transfer to the private sector. If implemented properly, privatization will help the nation maintain an effective national defense into the next century.

III. Methodology

The analysis began with an historical investigation of previously outsourced[2] defense functions, including activities considered for privatization but retained in-house. Case studies were selected to allow an extensive analysis of successful characteristics of past privatization efforts that could be generally applied to new privatization initiatives. The framework was refined through interviews with experts who also helped identify non-cost factors. Using these characteristics for success as guidelines, potential areas for future privatization were identified.

IV. Background

DoD is not unfamiliar with privatization. Office of Management and Budget (OMB) Circular A-76 states "In the process of governing, the Government should not compete with its citizens."[3] Although numerous support activities are partially contracted out, the potential for further privatization is considerable. OMB has estimated that at least 240,000 defense positions are suitable for contracting out. DoD calculates that it saves $9,600 per year when a full time

---

[1] Loren B. Thompson, "The Privatization of Defense Support Functions: A Public-Sector Case Study," Alexis de Tocqueville Institution; Presented at the Kennedy School of Government, Harvard University, 28 April 1995.

[2] The terms "outsource," "contract out," and "privatize" are used interchangeably within this report.

[3] Office of Management and Budget Circular A-76, "Performance of Commercial Activities," (revised) 4 August 1983, paragraph 4, sections A & B.

position is transferred to the private sector.[4] These estimates potentially offer savings of up to $2.3 billion. The assumption that privatization, on average, results in cost savings can be supported. However, savings must not overshadow the importance of mission readiness or other military benchmarks necessary for national defense.

V. Case Studies

Five useful cases laid the groundwork for the privatization decision-making framework: Army and Navy commercial activities programs, Coast Guard LORAN (LOng RAnge Navigation), Marine Corps service week, Naval ship maintenance, and Air Force flight line maintenance. These cases provided criteria for measuring successful privatization, identified relevant actors, demonstrated policy constraints, and formed the foundation for our framework.

VI. Criteria to Measure Successful Privatization

Based upon inputs from various policy actors and case studies, the following criteria to measure successful privatization were identified. Improvement in each area is the objective.

Primary:	- Cost - Quality - Response time	**Secondary**:	- Reliability & sustainability - Customer satisfaction - Compatibility with military culture

VII. Policy Constraints and Considerations

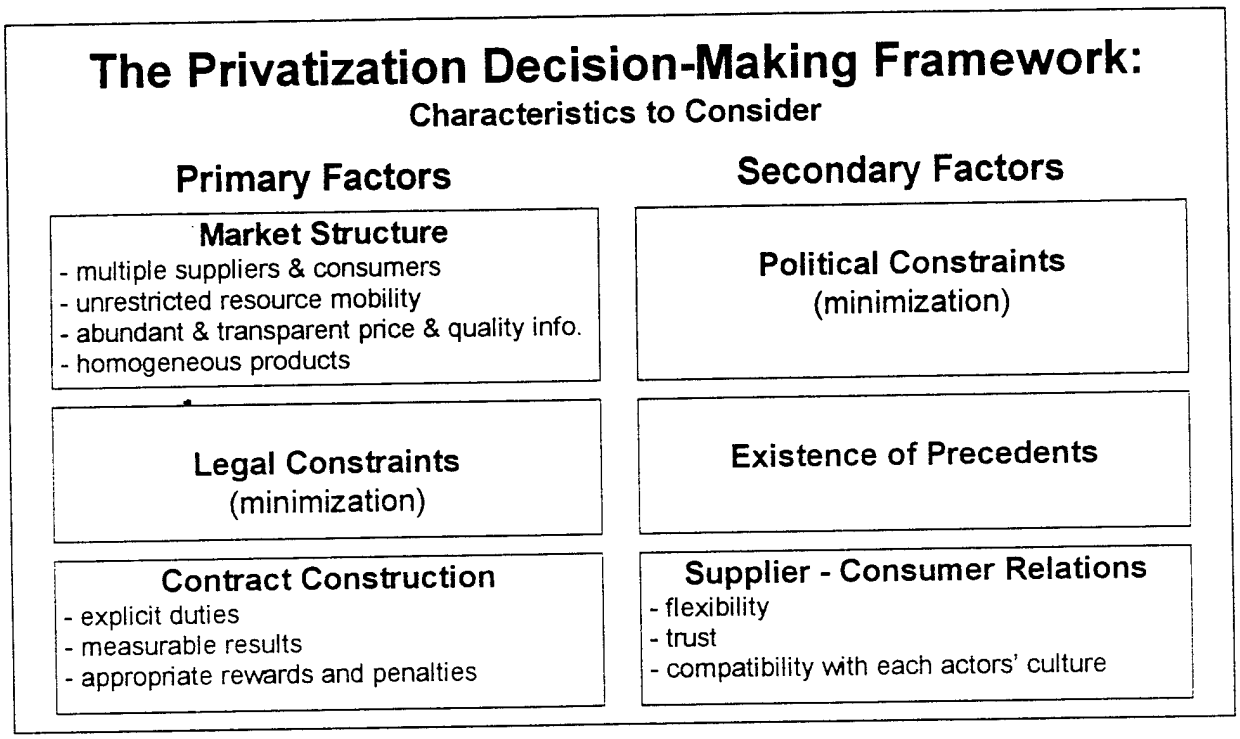
Privatization decision makers operate in a complicated policy arena. Legislative and legal restrictions, such as OMB Circular A-76 and Federal Acquisition Regulations (FAR), pose challenges and opportunities for privatization. Both implicit and explicit constraints prevent the contracting out of certain defense functions, with national security and protection of constituent interests influencing policy makers. Hidden costs, like those associated with increased attrition and maintaining excess infrastructure, must be considered. Other considerations, such as harm and control issues, play crucial roles when private contractors operate in hostile environments. Successful privatization requires decision makers to address these concerns.

VIII. Factors to Guide Privatization Decisions

The following framework is offered as a guide for those making privatization decisions. These factors have proven to be significant in past outsourcing initiatives, but by themselves do not guarantee success. Although the points involving market structure and legal-political environment are standard privatization issues, this framework emphasizes contract construction and social considerations as new issues of importance. The likelihood of meeting the goals of the

[4] Thompson, "Privatization of Defense Support Functions."

privatization program (such as decreased cost, improved performance level, or other criteria listed above) is enhanced if the following factors are addressed:



IX. Prospects for Future Privatization Efforts

Steps are already being taken to overhaul the government's outsourcing procedures. OMB Circular A-76, unchanged since August 1983, is being rewritten, and may soon be re-released as official Federal policy. Given that 55 - 60% of DoD commercial activities are still performed in-house, there is a large potential for further contracting out. Installation services, health and social services, education and training, and maintenance and repair appear to be likely candidates for future privatization initiatives. Upgrading base infrastructure has received considerable attention, particularly regarding electrical energy supply.

I. Problem Statement

This report was prepared to provide the client, Business Executives for National Security (BENS), with a framework to identify defense functions suitable for privatization. As a private non-profit organization, BENS searches for ways to promote efficient use of defense allocations. By employing an analytically rigorous framework to commercial defense activities, the client can make recommendations to public officials considering privatization. BENS can also interact more effectively with private firms seeking to increase their share of military contracts. Cost savings can be used to fund higher priority defense items, like new weapon procurement/upgrades or quality-of-life initiatives. Contracting out can also satisfy legislators who demand "peace dividends" or "doing more with less," forcing DoD to more efficiently allocate tax dollars.

Privatization remains a timely and relevant issue. The real value of the defense budget has decreased 35% between 1985 and 1994.[5] This downsizing has taken place in the face of longer deployments to crisis areas like the Persian Gulf, Somalia, Haiti, Liberia, and Bosnia. The need to stretch more limited resources, while maintaining a high operational tempo, has focused attention on privatization of additional defense activities and services. Furthermore, DoD's Commission on Roles and Missions (CORM) highlighted privatization as providing "major opportunities to reduce the cost of DoD's infrastructure while enhancing its effectiveness."[6] Budget pressures, when combined with the current political support for this initiative, will ensure privatization is not a passing fad.

---

[5] Ibid.

[6] "Directions for Defense." Report of the Commission on Roles and Mission of the Armed Forces. 24 May 1995: Government Printing Office, p. 3-1.

II. Application

Importance of an Analytical Approach to Privatization

Privatization is an important defense issue because decision makers are attempting to maintain core war-fighting capabilities while defense budgets decline. Privatization could offer DoD a way to maximize spending on support functions, while allowing the private sector to compete for defense contracts worth many billions of dollars. The privatization campaign must be approached methodically and thoughtfully. Relying upon ideology, tradition, "common sense," or other non-analytical approaches is not sufficient when the defense of the nation is at stake. If the transition is rushed, the government could be denied the savings it seeks and national security could be jeopardized.

DoD's Unique Requirements and the Need for Stricter Standards

Privatization, as examined in this report, is not readily generalized to the government at large. Contracting out programs affecting defense functions must be held to a stricter standard because failure will negatively impact national defense. Unlike organizations, such as the General Services Administration, which may measure failure by wasted dollars, failure for DoD could mean lost service member lives and the decreased ability to protect American national interests. The emphasis that DoD's culture places upon achieving its mission guarantees that only the smallest margins for error will be acceptable. The military's unique needs and the importance of maintaining national defense warrant analysis reaching beyond cost comparisons.

BENS' Role

Using the framework developed in this report, BENS can aid decision makers in identifying potential areas for privatization. Applying an analytical standard to each decision will allow BENS and other policy advisors to use lessons learned in past initiatives to achieve the goal of maintaining national defense readiness for less tax dollars. Before analyzing potential areas for privatization, BENS must first decide which criteria it deems most important. BENS can then use our framework and criteria to examine privatization proposals, placing various weight on appropriate factors. (See Sections VI and VIII for the development of these tools.)

The Privatization Decision-Making Framework:
Characteristics to Consider

Primary Factors	Secondary Factors
Market Structure - multiple suppliers & consumers - resource mobility - abundant & transparent price & quality info. - homogeneous products	**Political Constraints** (minimization)
Legal Constraints (minimization)	**Existence of Precedents**
Contract Construction - explicit duties - measurable results - appropriate rewards and penalties	**Supplier - Consumer Relations** - flexibility - trust - compatibility with each actors' culture

BENS can measure the **success** of a **privatization program** using the following criteria:

Primary:	- Cost - Quality - Response time	**Secondary**:	- Reliability & sustainability - Customer satisfaction - Compatibility with military culture

By framing the conditions of a privatization proposal and determining how to measure success, BENS can improve its decision-making process, and offer useful guidance to other actors.

The Privatization Terrain: Mapping Opportunities

This report serves as a guide to help BENS map the issue of privatization. The terrain surrounding this issue is complex because of legislatively imposed constraints, intricate government regulations, hidden costs, and harm issues. These are just a few of the factors obscuring the issue and each privatization initiative faces a unique mix of constraints. It is useful to identify the policy constraints and related subjects to increase the likelihood of successful implementation and to define privatization's limits. DoD has identified core competencies that will continue to be performed by the military. These competencies encompass much more than war-fighting capabilities. The military and the government as a whole have identified inherently governmental functions that will not be privatized (See Appendix A). Understanding the limits of privatization should aid advocacy organizations, such as BENS, to find opportunities available to the private sector.

Privatization is a rapidly evolving subject which is viewed differently by the various actors involved. Applying an analytical framework will allow BENS to quantify a proposal and understand where the constraints may lie. BENS plays an important role as an honest broker between DoD's national security concerns and the private sector's desire to move into an expanded multi-billion dollar market. If the Department of Defense successfully meets the threats posed by this and the next decade, then privatization will have played an important role in achieving victory.

III. Methodology

Researching the privatization phenomenon required a variety of sources and techniques. An extensive literature review was conducted for reference material. Particular attention was devoted to empirical evidence and common characteristics found in successful privatization efforts. We conducted numerous interviews with representatives of government agencies, independent foundations, non-profit organizations, and interested private sector companies.

We focused our case study upon two broad categories: base service/support functions and operational maintenance. These two areas provide the bulk of so-called "commercial activities," typically subject to OMB Circular A-76's jurisdiction.[7] Five useful privatization initiatives provided the necessary data: Army and Navy commercial activities programs, Marine Corps service week, Coast Guard LORAN (LOng RAnge Navigation), Naval ship maintenance, and Air Force flight line maintenance. These case studies were selected to allow an extensive analysis of successful characteristics of past privatization efforts that could be generally applied to new privatization initiatives. We surveyed representative programs from each military branch to balance each service's unique cultures and interests.

Based upon our general reference material, interviews, and case study research, we identified certain criteria that can be used to measure the success of privatization programs. We also discovered the actors who use these criteria, examining their relative interests and constituencies. Policy constraints and considerations became apparent as historical evidence revealed the legal, political, social, economic, and military challenges to privatization.

---

[7] "A commercial activity is one which is operated by a Federal executive agency and which provides a product or service which could be obtained from a commercial source." OMB Circular A-76, paragraph 6,

After processing these factors, we generated a framework for decision makers to employ during the privatization decision-making process. Primary factors such as market structure, legal constraints, and contract construction were awarded top priority, while political constraints, existence of precedents, and relations between supplier and consumer were given secondary status. Keeping these elements in mind, the future prospects for privatization efforts were examined, including recent unpublished revisions of OMB Circular A-76. All of these results were discussed with policy experts, and their feedback was used to revise our framework, discover constraints, and identify hidden costs

---

section A This document is explained in greater detail in the "Background" and "Policy Constraints and Considerations" sections of this report.

IV. Background

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

Federal privatization efforts can be traced to a pivotal document with roots in the Eisenhower administration. The latest version of this directive, OMB Circular A-76, states:

> **In the process of governing, the Government should not compete with is citizens.** The competitive enterprise system, characterized by individual freedom and initiative, is the primary source of national economic strength. In recognition of this principle, it has been and continues to be the general policy of the Government to rely on commercial sources to supply the products and services the Government needs.[8] (emphasis added)

This national policy originated in the Bureau of the Budget Bulletins issued in 1955, 1957, and 1960. The first version of A-76 was released in 1966, with revisions occurring in 1967, 1979, and 1983. This document initiated the Federal government's official endorsement of privatization and served as a catalyst for DoD to begin shifting its weapons procurement and depot level maintenance to the private sector. This transaction was a fundamental change for an organization which formerly relied on its internal capacity to produce and maintain its equipment.

OMB Circular A-76 makes an important distinction between two types of services associated with the Federal government: inherently Governmental (c.q.) functions and commercial activities (CA). As defined by A-76,

> A **Governmental function** is a function which is so intimately related to the public interest as to mandate performance by Government employees. These functions include those activities which require either the exercise of discretion in applying Government authority or the use of value judgment in making decisions for the Government.[9] (emphasis added)

---

[8] OMB Circular A-76, paragraph 2, section A.

[9] Ibid., paragraph 6, section E.

In contrast, a **commercial activity** is "one which is operated by a Federal executive agency and which provides a service which could be obtained from a commercial source." A list of governmental functions is included in Appendix A.

History of Defense Privatization

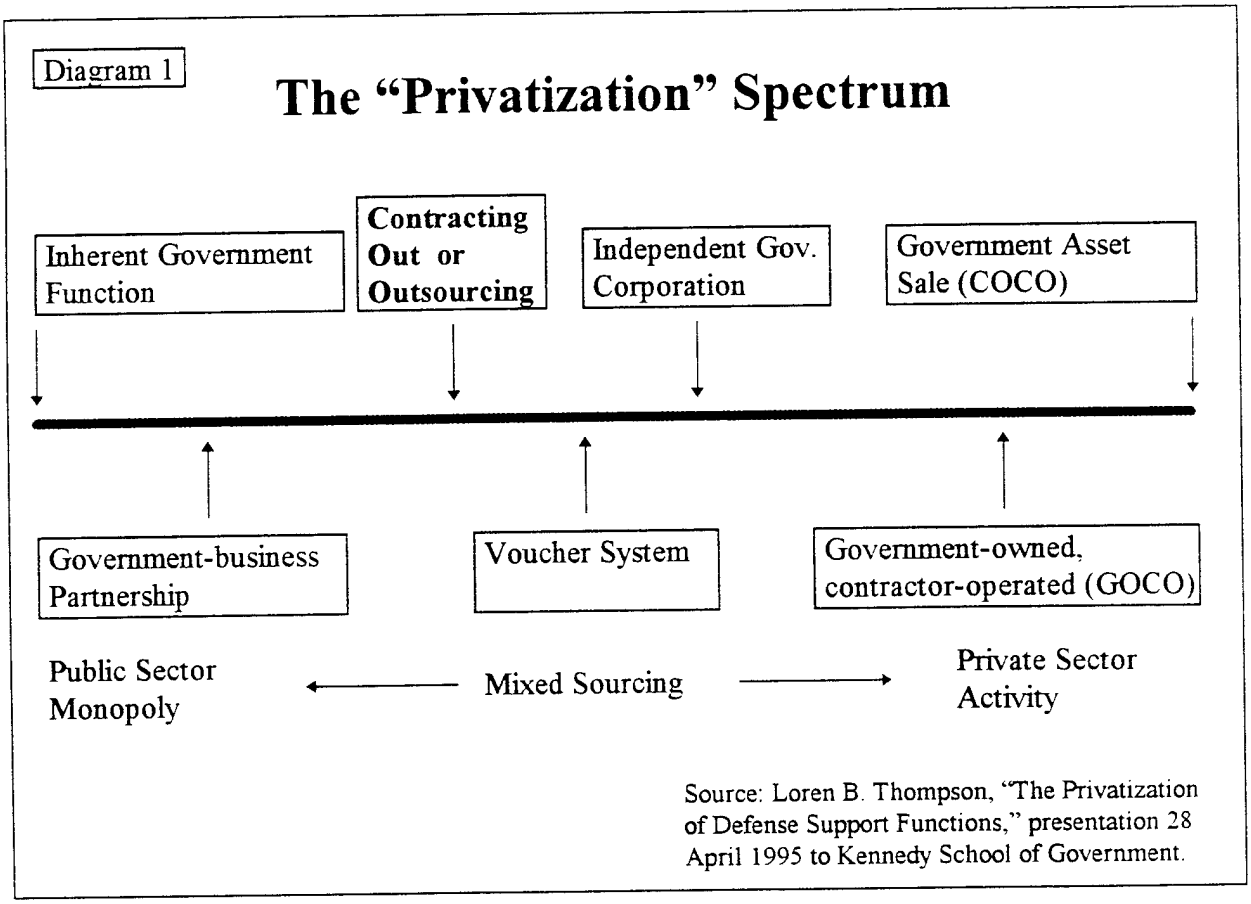
During World War II, the Department of War (now DoD) annexed new capabilities which the private sector had previously provided. When faced with a war of survival, these changes made sense because the entire nation had devoted itself to the war effort. The Navy organized private civilian engineering contractors into construction battalions, known as Sea-Bees, allowing increased control over construction efforts in combat. After the war this function, and others that could be provided by the private sector, continued to be performed internally by DoD. The desire to maintain these capabilities was heightened with the beginning of the Cold War. For the first time in the history of the United States, large, standing armed forces remained active during peacetime. This state of readiness fostered the creation of a military/industrial complex which President Eisenhower warned the nation of in his 1960 farewell address.

When OMB Circular A-76 was published in 1955, the military and the private sector began to see the mutual advantage that privatization could provide. Allowing the private sector to perform work previously provided by public arsenals was the first step in this process. The relationship between the private sector and the government continued to evolve and expand, bringing more functions and activities under the purview of private companies. The expansion included the increasing role of private companies in weapon system contracting and procurement, logistics, and more recently base service/support functions. Currently, the private sector performs

functions ranging from flight-line maintenance for all Air Force trainer aircraft, to serving food and providing other support functions for American troops once deployed to Somalia and Haiti and now deployed to Bosnia. Numerous duties are performed by the private sector, but since the mid-1980's only 10% of the 1 to 1.5 million applicable government billets have been subject to the A-76 review process.[10]

Definitions

One difficulty facing current privatization initiatives has been the inability to define the topic and set criteria for judging success. Privatization's meaning varies depending on the situation and perspective of the individual or organization employing the term.



Source: Loren B. Thompson, "The Privatization of Defense Support Functions," presentation 28 April 1995 to Kennedy School of Government.

[10] Mike Hovey, internal memorandum, from the Commission on Roles and Missions staff records, 11 April 1995.

Table 1 explains three techniques pertaining to possible DoD privatization programs.

Table 1: "Privatization" Definitions

Name	Definition
Contracting out or outsourcing	Private provision of goods or services according to the requirements of an explicit contract
GOCO: Government Owned, Commercial Operated	Government maintains ownership of a facility (e.g. the Department of Energy's nuclear plants) but a private firms operates it
Asset sales or leases	Government sells or leases its infrastructure to private firms, which then own/lease and operate it for the public's benefit and private profit.

Our analysis focuses upon contracting out/outsourcing initiatives, since the provision of defense-required commercial activities is most compatible with the sensitive political, legal, and operational security needs of national defense.

Assumptions

Privatization is usually undertaken because policy makers believe contracting out can save money. OMB has estimated that at least 240,000 defense positions are suitable for contracting out. DoD calculates that it saves $9,600 per year when a full time position is transferred to the private sector.[11] These estimates potentially offer savings of up to $2.3 billion. After surveying a wide variety of contemporary studies, we agree that privatization can cut costs, on average, by at least 20-25%. No significant long-term decreases in quality were observed. Private ventures that resulted in failed outsourcing programs returned to in-house government provision. The chart found in Appendix B summarizes the most widely available privatization research supporting these arguments.

[11] Thompson, "Privatization of Defense Support Functions."

V. Case Studies

The five case studies outlined below provided the groundwork for our decision-making framework. They emphasized key legal, political, and technical aspects of privatization, and demonstrated real-life examples of government reliance upon commercial firms. Recurring themes included: magnitude of privatization efforts; cost of making outsourcing decisions; exemptions of potential candidates from A-76 review; relevance of "intangibles" and hidden costs; importance of specific and comprehensive work contracts; and initial failures weighed against "learning curve" benefits. These case studies do not offer generalizable "truths" to apply to all privatization programs. Rather, each scenario offers examples of opportunities and challenges which may apply to similar privatization initiatives.

Army and Navy Commercial Activities Programs

The Army and Navy's Commercial Activities (CA) programs, based upon guidance from OMB Circular A-76, provide useful data concerning the efficacy of privatization. The goal of the CA process is to determine the most cost-effective way to perform certain commercial functions required by military personnel. Table 2 shows the Army's considerable use of privatization.

Table 2: Army Commercial Activities

Function	Percent Performed by Contractors
Laundry and dry cleaning	100%
Food services	83%
Motor pool	71%
Information management	67%
Engineering and housing	56%
Logistics	30%
Data processing	9%

Source: Loren B. Thompson, "The Privatization of Defense Support Functions: A Public-Sector Case Study," presentation 28 April 1995 to Kennedy School of Government.

Analyst Loren Thompson found an average, maintained-over-time saving of 29% for outsourced CA services.[12] The Army CA program demonstrates that privatization is not a new phenomenon. The ability to set a cost-saving precedent is one key factor in the privatization framework.

Turning to the Navy's CA program, many other lessons become apparent:

- It is important to account for the cost of conducting A-76 studies to determine CA privatization candidates. The **cost of an average A-76 review** is about **11 percent** of the annual cost of performing the function studied.[13]

- Not every A-76 review results in substantial **savings**.[14]

- **Exempting** certain Naval functions from A-76 review process, which totals about 250,000 billets, **may prevent achieving full cost savings**.[15]

- It is necessary to employ a bidding system that **protects DoD from underperforming low bidders**.[16] Exact **contract specification** is crucial because private firms can request additional payment for performing functions not listed in their contracts.[17]

- Including appropriate **awards and penalties** requires experience.

- The cost of **monitoring** contractors must also be considered.[18]

---

[12] It is interesting to note the ideological shift which took place between the pro-market Reagan years and subsequent administrations. In the 1986 Coast Guard LORAN case, the analyst makes the following observation, citing A-76: "The idea behind A-76 (named after OMB Circular No. A-76), as outlined in a 1983 OMB memorandum, was that 'in the process of governing, *the Government should not compete with its citizens*. . . In recognition of this principle, it has been and continues to be the general policy of the Government to rely on commercial sources to supply the products and services the Government needs.'" (emphasis added) Contrast that statement with the following opening lines from a 1993 Center for Naval Analyses study: "Government policy -- outlined in Office of Management and Budget (OMB) Circular A-76 -- is *to allow private sector companies to compete with government organizations*. . . The goal is to use competition to encourage efficiency -- whether the function is contracted out or not." (emphasis added)

[13] Alan J. Marcus, "Analysis of the Navy's Commercial Activities Program," Center for Naval Analyses, CRM 92-226.10, July 1993, p. 14.

[14] Ibid., p. 7. "No billet savings were associated with the MEO [most efficient organization] study in 58 percent of the studies. [In other words, the potential for job (billet) reductions was low.] There were no cost savings at all -- even after the competition -- in 29 percent of the cases. . . About 45 percent of the [roughly 900] cost studies [during the 1980s] resulted in a function being contracted out."

[15] Ibid., p. 2. Analyst Alan J. Marcus states: "If . . . 20 percent of the currently exempt billets were opened to competition, we estimate that the Navy would save close to $500 million per year."

[16] The Navy employs a two-stage process whereby bidders must demonstrate their ability to perform required functions, with the winner being chosen from those qualified contractors.

[17] Ibid., p. 25.

[18] Marcus found 10% of the contract to be a reliable figure.

Marine Corps Service Week

Facing the threat of reductions in training time, Marine Corps leaders during the Carter presidency sought methods to preserve the structural integrity of basic training while accommodating the administration's wishes. "Mess and maintenance" or "service" week, a period when recruits performed cooking and maintenance jobs, seemed like a candidate for privatization.

Service week exemplifies the concept of "hidden costs" of privatization, an important consideration for our framework. Service week gave recruits who failed marksmanship or swimming an opportunity to receive extra instruction and qualification testing. This "down" time allowed recruits to exercise some self-policing and self-leadership, while drill instructors enjoyed a break from their stressful training regiment. Performing mess and maintenance duties taught recruits how to provide meals and keep clean, functions sorely needed in a battlefield environment.[19] Hiring civilians to perform work traditionally done by Marines appeared as "contamination," and given Parris Island's remote location, finding workers would be difficult.[20] Time for recruit assessment would have to be found in some other segment of basic training, possibly displacing other crucial instruction programs.

Coast Guard LORAN

This 1985 Coast Guard case, involving the potential contracting out of over 30 LORAN (LOng Range Aid to Navigation) stations, contributed several key elements to our privatization framework.[21] The process by which cost comparisons are made is crucial. A-76 cost studies may

---

[19] William Rosenau, "Mess and Maintenance at Marine Boot Camp," John F. Kennedy School of Government Case C16-87-792.0 and Epilogue C-16-87-792.1, 1987, p. 6.

[20] Ibid., p. 9. The remote location also served a useful isolation function for the basic training program.

[21] This land-based navigation system is used by both military and civilian ships to navigate coastal waters. Each station is operated by ten to twenty people.

not reflect the most accurate picture of potential privatization savings. Some Congressional staffers worried about liability in the event of collision injuries resulting from negligent contractor operation, and wondered if it were possible to hire a civilians willing to work in isolated locations for similar pay.[22] Additional personnel would have to be assigned to certain stations to supplement single-duty private contractors, since some LORAN station personnel performed multiple duties, such as search and rescue. There were also worries that LORAN privatization represented the contracting out of a core logistic function.[23] On the positive side, Department of Transportation analysts advocated a gradual process of privatization as a way to introduce new Global Positioning [navigation] Systems. Essentially, contracting out need not occur at all LORAN stations simultaneously. Successful pilot projects could provide experience for later privatization endeavors.

Naval Ship Maintenance

During the Reagan administration, Congress passed the 1985 DoD Appropriations Act. This law directed the Navy to determine if competition between public and private maintenance shipyards (depots) would result in cost savings. Although initial Navy estimates reported savings of $200 million, this figure was later reduced by $145.5 million, partially as a result of improper exclusion of study costs.[24] As found in the Army/Navy CA and Coast Guard LORAN cases, costs of studies, requests for proposals, and evaluating private sector bids are important yet

[22] Donald Lippincott and Esther Scott, "The Coast Guard and LORAN: In-House vs. Contracting Out," John F. Kennedy School of Government Case C-16-86-706.0, p. 8.

[23] Ibid., p. 9. The core logistic function was defined by House Committee on Coast Guard and Navigation staffer Bill Woodward as a concept allowing "the military service itself to define the number of people and types of functions that it needs in order to carry out its essential missions to make sure that the core is not affected by this [A-76] process."

overlooked parts of the privatization process.

This case emphasizes the market structure factors involved in privatization decisions. First, the concept of the learning curve is evident. DoD considered the possibility of having to pay more high ship maintenance costs in the short term as private firms learned to accommodate increased workloads. A second public-to-private transition issue was the closing of public depots, estimated by CORM to be $500 million for a "typical depot."[25] Should a public facility be transferred to private operation, the one-time cost of transferring a typical depot's 3500-man workforce was about $70 million.[26] Nevertheless, long-term savings from depot privatization could amount to $1 billion per year. Finally, declining defense budgets have reduced the share of maintenance work performed by private companies. This trend sets a dangerous precedent, since private depots offer manufacturing and repair capabilities not found at public sites. Increasing the private sector's share, thereby fostering competition for DoD maintenance contracts, might encourage further innovation and improved quality.

Air Force Flight Line Maintenance

Privatized flight line maintenance of trainer aircraft has been in place at Vance Air Force Base since 1960, saving an estimated 27% when compared to other pilot training bases.[27] This cost saving precedent led the Air Force to expand the program to Columbus AFB in 1988.

---

[24] Donna M. Heivilin, "Depot Maintenance: Issues in Management and Restructuring to Support a Downsized Military," General Accounting Office, Testimony before the Subcommittees on Readiness, Committee on Armed Services, House of Representatives, 6 May 1993, pp. 17, 22-3.

[25] "Public and Private Roles in Maintaining Military Equipment at the Depot Level," Congressional Budget Office, July 1995, p. 50.

[26] Ibid., p. 53.

Table 3 provides cost comparison data for Columbus Air Force Base (AFB).

Table 3: Air Force Flight Line Maintenance at Columbus AFB

Pre-comparison cost (80% military personnel / 20% civil service workers)	**In-house civil service** (100% civil service workers)	**Private contractor** (Northrop Worldwide Aircraft Services)
$119.9 million	$62.9 million	$52.6 million
	52% of original cost	44% of original cost

Source: U.S., Congress, House, Committee on Armed Services, Readiness Subcommittee, Department of Defense Commercial Activities or Contracting Out Program, 101st Cong., 1st sess., 27 April 1989, p. 35.

The Air Force chose Northrop because the company offered the lowest bid and had satisfactorily fulfilled the Vance contract since 1972. However, positive performance at Vance did not transfer to Columbus. For example, aircraft readiness rates, at 80% before privatization, fell to 33% by February 1989, disrupting the pilot training schedule and raising safety concerns.[28] Incompatibility between the Air Force and Northrop, particularly regarding transition implementation, and a contract stressing cost rather than quality, prevented successful privatization. (For a more complete discussion of the underlying problems at Columbus, please see Appendix C.) After rebidding the contract, the Air Force used lessons learned at Columbus to successfully implement a privatized work force at all its pilot training bases, including Columbus. This case demonstrates the potential dangers to national security posed by a poor transition to private contracting.

---

[27] U.S., Congress, House, Committee on Armed Services, Readiness Subcommittee, Department of Defense Commercial Activities or Contracting Out Program, 101st Cong., 1st sess., 27 April 1989, p. 43.

[28] Ibid., pp. 57-59.

VI. Criteria to Measure Successful Privatization

What does "successful privatization" mean? The answer to this question depends upon the contractor's performance measured against six relevant criteria. The first three, **cost, quality,** and **response time**, are considered to be primary criteria, while **reliability and sustainability, customer satisfaction,** and **compatibility with military culture** are judged to be secondary. Meeting or exceeding expectations for the first three criteria are generally sufficient to ensure the successful operation of a privatized defense function. The second three criteria are significant as well, but are less visible and immediate factors.

Specific references to privatized military functions are designed to demonstrate applications of each factor to real life situations, rather than prove the significance of each criterion. These criteria are the product of two research methods:

1. Analysis of **case studies** revealed certain characteristics which decision makers used to evaluate the results of privatization programs.

2. **Interviews** with government officials, interest groups, defense contractors, and policy analysts exposed measuring devices used to critique privatization projects.

For the sake of grounding theoretical criteria in real-life circumstances, Dallas-based Brown and Root Services Corporation is used as an example of a company fulfilling contract duties for DoD.

Cost

Driven by reductions in the defense budget, advocates have turned to private firms in search of cheaper goods and services. Using this measure, successful privatization means reducing the cost of providing a necessary service, with savings appearing as a lower entry in the

DoD budget. For example, since 1992 Brown and Root Services Corporation has executed a multi-year contract administered by the U.S. Army Corps of Engineers' Translatantic Division.[29] For the current Bosnia operation, successful privatization means Brown and Root runs base camps, cooks food, washes uniforms, and entertains soldiers for less money than a public entity. Cost is usually the primary criteria for judging privatized goods and services, since the locus of struggle in a peacetime environment is the DoD budget, and not the battlefield.

Quality

The quality of goods and services supplied forms the second measure of successful privatization. If a product or service is procured from the private sector for a price equal to its public counterpart, but the private product or service's quality is considered superior, successful privatization has occurred. Ideally, DoD officials strive for goods of higher quality at lower cost, combining the best of two contracting worlds.

Response Time

Successful privately-procured goods and services must either match or exceed public sector delivery standards. Cutting-edge inventory management techniques like just-in-time delivery offer the possibility of bringing unprecedented procurement techniques to military operations. However, an obvious tension exists between contractors, who defend their ability to meet wartime surge requirements, and public officials, who remain skeptical. One recent Congressional Budget Office study defended the contractors, reporting that private depots to met

[29] William Matthews, "Morale Is Their Business," Air Force Times 12 February 1996, p. 19.

Gulf War demands.[30] In Bosnia, Brown and Root demonstrated rapid service delivery by hiring 750 Hungarians to run staging camps for arriving U.S. soldiers, avoiding the need and delay of calling up American reserve units. In Haiti, rather than shipping washing machines and dryers from the States to provide laundry service, Brown and Root repaired and utilized a jeans factory's laundry equipment.[31] Innovative techniques like these are more frequent in the private sector, helping contractors meet the response time criterion.

Reliability and Sustainability

The ability of a private contractor to consistently keep costs low, maintain product quality, and meet time and volume deadlines forms another determinant of successful privatization. In many respects, the need for reliability increases as the proximity to the battlefield decreases. Unfortunately, due to government regulations, most procurement officials are not permitted to award contracts based upon a private firm's history of reliability. Instead, each bidder must be treated as though they have no performance record, thereby allowing potential providers an "equal opportunity" to win procurement contracts. Brown and Root's track record in Somalia, Zaire, Italy, Saudi Arabia, and Haiti assisted in their selection for duty in Bosnia. However, Brown and Root's physical ability to provide services is limited, and less qualified companies may be called upon as military deployments increase. Successful privatization criteria would demand a steady stream of goods and services over a contract-specified period. Adverse business cycles, labor difficulties, input shortages, and managerial conflicts can negatively impact upon the ability of private firms to meet military needs.

---

[30] "Public and Private Roles," pp. 17-24.

[31] Matthews, "Morale."

Customer Satisfaction

Successful privatization cannot occur if the end user of a good or service does not support private sector procurement. Customer satisfaction includes ease of use, perceptions of quality, and trust. If the recipients of the privately-procured good or service have faith in the product, and can actually use it as required by contract, then privatization has been successfully implemented. According to Army surveys, soldiers in Haiti "credited civilian contractors with improving their living conditions," thanking Brown and Root for good food, showers, and sanitary quarters.[32] Successful privatization involves military personnel trusting civilian contractors and accepting their goods and services as reliable and effective.

Compatibility with Military Culture

This criterion involves the ability of public and private operatives to interact in a sometimes chaotic functional environment. For example, military officers may be uncomfortable with a private contractor's willingness to deliver goods and services to front-line soldiers under attack by chemical weapons. Ignorance of the other sector's operating constraints and capabilities can undermine the potential for effective privatization. A strategy frequently employed to improve public-private compatibility is the hiring of retired military personnel by defense contractors. Although the "revolving door" is sometimes criticized by acquisition reformers, contractors with military backgrounds bring expertise, personal experience, and a sense of legitimacy to joint soldier-contractor endeavors.

[32] Ibid.

Policy Actors' Use of Criteria for Success

The following table provides an overview of major policy actors' views with regard to each of the criteria for success. Keeping these values in mind when proposing changes to legislation, conducting negotiations, or making policy statements, will increase the likelihood of achieving BENS' goals. Table 4 provides a brief reference to actors and their interests.

Table 4: Description of Policy Actors and Their Interests

Group	Cost	Quality	Response Time	Reliability & Sustainability	Customer Satisfaction	Compatibility with Military Culture
Legislators	■■■	■				
Government officials	■■■	■■	■	■		
End users		■■■	■■	■■	■■■	■■
Defense contractors	■■	■■■	■	■	■	
Researchers & Interest Groups	■■■	■■				
Citizens	■■	■				

Key: ■■■ = great importance; ■■ = moderate importance; ■ = some importance; no mark = marginal importance

Looking at this chart, one can see one reason why cost is regarded as the primary factor when measuring the success of privatization. Most policy actors, with the exception of military personnel, tend to regard cost as being of moderate or great importance. Only the highest levels of military command, such as those making budget proposals to Congress, tend to pay close attention to the cost of field-deployed hardware. In contrast, the soldier on the battlefield cares about operating a familiar, easy-to-use, high-quality product, received on-time in a reliable and sustainable manner.

VII. Policy Constraints and Considerations

Structural impediments to privatization must be recognized as significant factors for any initiative. These constraints arise from past legislation, intricate government acquisition regulations, hidden costs, and other considerations. Beyond legal impediments and government rules, privatization's hidden costs could negate any projected direct savings. Additional concerns, such as having private contractors in a combat operation, must be addressed.

Legal Constraints

Congress has created a variety of laws which have evolved into a complex web restricting the ability to privatize new activities and services within DoD. For example:

- The **A-76 review process** requires approximately **24 months** and is necessary when examining similar functions even at different locations.

- Attempts to privatize any activity which is currently performed by more than **ten** DoD **civilians** requires a public-private competition.

- No more than 40% of depot-level maintenance may be done by private contractors.[33]

- DoD is prohibited from contracting out the following:

  -- **core logistics maintenance** functions
  -- **security** and **firefighting** services
  -- **entire medical facilities**

- Only **installation commanders** have the authority to decide which commercial activities will be subject to A-76 review (Nichols amendment).[34]

---

[33] "Public and Private Roles," p. 15.

[34] Ronald D. Utt, How to Achieve $11 Billion in Savings in FY 1996: A Special Report to the Budget and Appropriations Committees, Report by The Heritage Foundation, 22 February 1995, p.6.

Even if one ignores the problems with creating a level playing field and accurately accounting for costs in the public sector, Former Deputy Secretary of Defense John Deutch halted public - private competitions in a 1992 policy memorandum. Additionally, certain members of Congress have been very successful at passing legislation which specifically prohibits privatizing an activity at certain bases. Legislation has been passed to prohibit Crane Army Ammunition Activity and McAlester Army Ammunition Plant (both in Alabama) from contracting out services. Similar restraints have been imposed on bases in Indiana, Pennsylvania, and Mississippi.[35] All of these impediments ensure that privatization efforts are difficult to replicate DoD-wide, driven by a lack of consistency regarding the handling of new privatization candidates.

Streamlining the Federal Acquisition Regulations

DoD and the private sector approach contracting with very different perspectives. DoD is concerned with obtaining a product that will meet a myriad of military specifications at the lowest cost. This goal led to the creation of Federal Acquisition Regulations, or FARs, which govern how the competition will be handled and then how the contract will be monitored to ensure compliance. The FAR provides a means to achieving an equitable competition and attempting to safeguarding tax payer dollars from fraud, waste, and abuse. Unfortunately, extensive procedures required by the FAR saddle DoD with a clumsy means of realizing the efficiency that exists in the public sector. Currently, there is a movement to reform the FAR and provide the government with a more flexible tool for dealing with the private sector.

[35] Ibid.

Hidden Costs

Hidden costs are usually not explicitly recognized, but still must be accounted for if the effort is going to be accurately analyzed. The Marine Corps service week case provided an example of hidden costs. Bringing in a contractor to perform the menial tasks previously performed by recruits would eliminate the time needed for remedial recruit training. Privatization would have increased the attrition rate for remedial recruits and drill instructors, who relied on this time for a short break from their intense eighteen-week schedule.

Maintaining Excess Capacity

A different cost could result from DoD having to maintain infrastructure after paying the private sector to accomplish a supposedly privatized function or service. Some people have proposed that the private sector should perform administrative and support functions for Naval bases instead of using Naval personnel whose ships are in port. Privatizing these duties may initially make sense from a cost savings perspective, since highly trained Navy service members are not required to perform these low-skill tasks as their primary duty. However, if these administrative and support functions are privatized, what will land-bound Naval personnel do? After returning from stressful sea or field maneuvers, these menial jobs and administrative tasks allow sailors to perform some work, while relaxing before the next challenge.

In a modern military environment, characterized by high operational tempo and non-conventional, less-predictable threats, "down-time" is even more critical to relieve stress and retain quality personnel. Additionally, total budgetary costs might actually be higher if

administrative and support functions were contracted out, since DoD would then be paying the salaries for its Naval personnel and the private workers, effectively increasing the manpower pool.

Harm Issues

Smooth interaction between military and private personnel will require mutual adaptation and cognizance of each constituencies' concerns and capabilities. This understanding becomes especially important when U.S. military forces deploy to hostile locations and the need for public and private workers to function as a cohesive team becomes crucial. Concerns have been raised about the private workers' proximity to combat and the possibility of problems for military commanders who might have to deal with contractors who are outside of the command structure.

In recent years, the military has increasingly relied on private sector contractors, such as Brown and Root, to provide support functions like trash removal and feeding troops while deployed overseas. Incorporating private contractors into military operations has become more popular as the political pressure to minimize the number of American troops deployed increases and the public's fear of military casualties escalates. When combined with fact that front lines are fluid and there is no safe rear location, more private contractors are operating in a high risk environment. Two incidents demonstrate this point:

1. In 1995 the Saudi National Guard Armory was bombed, killing one military member and four contractors providing weapons training.

2. In 1995 two contractors were captured after straying into Iraq. They were imprisoned and sentenced to death, but were later released.

In both cases, while Americans were concerned by these events, it did not compare to the attention given to similar events involving American service members. For example, the

shootdown of an American helicopter over North Korea and the subsequent capture of the surviving pilot generated greater public and government reaction. If the American public currently does not seem to have the same concern for contractor's lives as they do for military personnel, how many contractor casualties will it take before it becomes an issue?

Control Issues

Beyond dangers to civilian operatives, the military must also understand certain control issues brought to light by having private contractors in a hostile situation. The military commander's job is to employ his forces to achieve his objective. This duty is complicated by having non-military personnel fall under the commander's responsibility. Without examining the problem of a private contractor not performing his/her task because of legal technicalities or refusal because the danger is too great, the military commander must be trained to interact with a civilian organization in a hostile situation. Cohesion is an important characteristic in a military operation; introducing a private contractor could not only have a negative impact on the unit's cohesion, but could also squander a disproportionate amount of the military commander's time.

Lessening impediments to privatization is a key to achieving the maximum benefit from the private sector. These constraints are the result of fundamental differences between government and private sector practices and cultures, but can be overcome if explicitly addressed.

VIII. Factors to Guide Privatization Decisions

Although privatization has been a part of DoD's operation since the publication of the original 1955 Bureau of the Budget bulletin, choosing areas for outsourcing still requires careful thought and planning. The following framework is a tool for decision makers considering the privatization of commercial (i.e., non-inherently Governmental) defense functions. The first three factors are awarded primary status, meaning they are more crucial than those ranked as secondary factors. Analysts would hope for positive results in each category, but the first three are sometimes sufficient to recommend pursuing privatization strategies.

The Privatization Decision-Making Framework:
Characteristics to Consider

Primary Factors	Secondary Factors
Market Structure - multiple suppliers & consumers - resource mobility - abundant & transparent price & quality info. - homogeneous products	**Political Constraints** (minimization)
Legal Constraints (minimization)	**Existence of Precedents**
Contract Construction - explicit duties - measurable results - appropriate rewards and penalties	**Supplier - Consumer Relations** - flexibility - trust - compatibility with each actors' culture

Market Structure

Economists generally emphasize four preconditions for efficient competitive markets: multiple suppliers and consumers, resource mobility, abundant and transparent price

and quality information relevant to individual actors, and homogeneity of products.[36] Multiple producers avoid monopoly complications and ensure firms behave as price-takers (as opposed to price-setters), while multiple consumers prevent monopsony (the ability of one buyer to influence the price paid for an economic input.)[37] Resource mobility influences the competitive adjustment process, allowing efficient firms to enter and operate within profitable industries and forcing inefficient firms to leave. Information is required to keep economic actors aware of relevant market factors. For example, if each consumer were somehow isolated from his fellow buyers, then supplying firms would occupy individual monopoly power over each consumer. The homogeneous products assumption implies uniform prices, but is sometimes discarded without causing serious disruptions to the competitive model.[38]

What is the overall importance of these four conditions regarding the success of privatization? Clearly, if a commercial activity offered all four characteristics, then cost savings through market efficiencies would be likely. The reality of such a favorable situation is often less accommodating. While contracting for garbage collection offers these factors in abundance, maintaining cutting-edge, technologically elite multi-million dollar aircraft tends not to conform to perfectly competitive markets. Nevertheless, the closer one can approximate the efficient market model, the greater the possibility of successful privatization.

Legal Constraints

Decision makers should assemble a list of the various laws, regulations, and other rule-

---

[36] Edgar K. Browning and Jacquelene M. Browning, Microeconomic Theory and Applications, 4th ed., (New York: HarperCollins Publishers, 1992), pp. 282-288.

[37] Ibid., pp. 527-530.

[38] Ibid., p. 287.

oriented impediments affecting the privatization of specific defense activities. Modifying or eliminating unreasonable restrictions must occur in order to increase the likelihood of successful privatization. The minimization of legal constraints, including OMB Circular A-76, the FAR, and installation/service/function-specific rules, helps promote successful outsourcing.

Contract Construction

Privatization can not be expected to succeed if public and private actors cannot accurately express their concerns in an enforcable written contract. The Air Force's initial negative experience with contracting out flight line maintenance at Columbus AFB demonstrated the imperative of explicitly enumerating appropriate duties, awards, and penalties. Privatized functions that offer easily measurable results, such as mission readiness rates, electricity supplied per unit time, or other quantifiable values, facilitate successful privatization. Tasks less amenable to measurement complicate contract specifications: keeping troops "adequately happy" may be approximated through surveys, but is awkward to quantify in a written contract.

Existence of Precedents

Privatization programs always carry a certain amount of risk and uncertainty. These potentially negative factors can be offset if one can point to a similar project that succeeded. One service's experimentation with contracting out can provide lessons and guidance for operators in other military branches. Legislators are also more likely to approve transfers to the private sector if data supporting the feasibility of a similar initiative is available. Precedents can also aid contract construction and demonstrate the applicability of the competitive market model, and can pave the way for removing legal and political constraints preventing contracting out.

Relations Between Supplier and Consumer

Privatization depends in part on the ability of public and private actors to operate in a compatible environment. Differences in accounting methods, procurement processes, employment strategies, and other characteristics of the business environment can cause friction between government agencies and private firms. Key decision makers in both sectors should identify those characteristics most likely to cause disagreement. Contract construction is the most beneficial arena for ironing out areas of contention. Although government bidding procedures are designed to eliminate favoritism or unwarranted consideration of non-financial factors, working with a trusted, familiar contractor on a long-term basis offers great potential for success. After evaluating the market structure, legal constraints, contract specification, political restrictions, and the lessons learned from precedents, decision makers must not neglect the unique cultures present in government and private organizations.

Framework Use: Criteria for Success and Actors' Interests

Using this decision-making framework, one can disaggregate the components of most privatization plans. Analysts should also determine their criteria for measuring success, borrowing the six factors listed in Section VI.

Primary:	- Cost - Quality - Response time	**Secondary**:	- Reliability & sustainability - Customer satisfaction - Compatibility with military culture

Finally, key actor's stances on each issue must be determined. From Section VI, these actors are:

Primary:	- Legislators - Government officials - End users	**Secondary**:	- Defense contractors - Research and interest groups - Citizens

Sound privatization decision-making involves weighing the importance of all these ingredients.

IX. Prospects for Future Privatization Efforts

Commercial Activities Estimation

Although estimating the potential for future privatization areas can be complicated, one method involves examining DoD commercial activities. During Fiscal Year 1994, the Department of Defense performed 274,000 work years of commercial and industrial-type work, while private contractors are estimated to have performed 193,000 work years.[39] Percentage-wise, DoD performed 59% of the total workload, while contractors provided the remaining 41%.[40] Breakdowns by service are included in Table 5.

Table 5: FY 1994 DoD Commercial Activity Work Years[41]

	In-House	**Contracted Out**	**In-House/ Contracted Out Split**
Services/Agencies	*Actual Work Years in thousands*	*Estimated Work Years in thousands*	*Percentages*
Army	110	55	67/33
Navy & Marine Corps	48	53	48/52
Air Force	53	79	40/60
Defense Agencies	63	6	91/9
TOTAL	**274**	**193**	**59/41**

Total Work Years in FY 1994 = 467,000

Source: Report on the Performance of Defense Commercial Activities, Office of the Assistance Secretary of Defense (Economic Security), 30 January 1995.

---

[39] As reported by Robert E. Bayer, Deputy Assistant Secretary of Defense for Installations, "section 2461(c) of Title 10, United States Code, requires that the Secretary of Defense submit a written report to Congress by February 1 of each fiscal year 'describing the extent to which commercial and industrial type functions were performed by Department of Defense contractors during the preceding fiscal year.' Section 2461(c) further requires that the Secretary include in each report 'an estimate of the percentage of commercial and industrial type functions of the Department of Defense that will be performed by Department of Defense civilian employees, and the percentage of such functions that will be performed by private contractors, during the fiscal year which the report is submitted."

[40] Report on the Performance of Defense Commercial Activities, Office of the Assistance Secretary of Defense (Economic Security), 30 January 1995.

[41] One **work year** equals 2,088 straight time (i.e., non-overtime) hours (including paid sick leave and vacation), the equivalent of one full-time employee for one calendar year.

Table 6 shows the estimates of work done in major classes of commercial services. By looking at functional categories, one can see the proportions of the entire commercial activity budget (shown in parentheses below) that are performed either in-house or by contractors.

Table 6: FY 1994 DoD Commercial Activities by Major Functional Category

	In-House	**Contracted Out**	**In-House/ Contracted-Out Split**
Major Functions	*Actual Work Years in thousands*	*Estimated Work Years in thousands*	*Percentages*
Social Services	22 (4.7% of total)	4 (less than 1% of total)	85/15
Health Services	39 (8.3% of total)	6 (1.3% of total)	87/13
Maintenance and Repair	17 (3.6% of total)	12 (2.6% of total)	59/41
Depot Maintenance and Repair	18 (3.9% of total)	17 (3.6% of total)	51/49
Base Maintenance/ Multi-Function	less than 500 work years (less than 1% of total)	25 (5.4% of total)	1/99
RDT&E Support	5 (1% of total)	6 (1.3% of total)	46/54
Installation Services	86 (18.4% of total)	38 (8.1% of total)	69/31
Other Nonmanufacturing	47 (10% of total)	40 (8.6% of total)	54/46
Education and Training	8 (1.7% of total)	3 (less than 1% of total)	73/27
Automatic Data Processing	10 (2.1% of total)	9 (1.9% of total)	53/47
Products Manufactured	4 (1% of total)	13 (2.8% of total)	24/76
In-House Maintenance of Real Property	18 (3.9% of total)	20 (4.3% of total)	47/53
TOTAL	**274 (59% of total)**	**193 (41% of total)**	**59/41**

Total Work Years in FY 1994 = 467,000

Source: Report on the Performance of Defense Commercial Activities, Office of the Assistance Secretary of Defense (Economic Security), 30 January 1995.

Synthesizing Table 6 yields several useful conclusions. The functions performed mostly in-house, in terms of all commercial work performed, are shown in Table 7.

Table 7: Top 4 In-House Functions as Percentages of Total Commercial Activities

Commercial Activity	Percentage of Total CA Work Performed
Installation Services	18.4%
Other Nonmanufacturing	10%
Health Services	8.3%
Social Services	4.7%

These functions contain the highest percentages of the total 467,000 work years performed by in-house DoD civilians. All represent potential candidates for privatization, based on CA workload.

Heavily/moderately privatized functions are shown in Table 8.

Table 8: Top 4 Most Heavily Contracted Out Commercial Activities, Ranked by In-House/Contracted Out Split

Commercial Activity	In-House/Contracted Out Split
Base Maintenance/Multi-Function	1/99
Products Manufactured	24/76
RDT&E (Research, Development, Testing, & Evaluation)	46/54
Automatic Data Processing	53/47

Key: 1/99 means 1% of the work is done in-house, while 99% is contracted out

These ratios indicate the extent to which certain military commercial activities are privatized now. Although the first two services are already heavily contracted out, the second two still offer privatization potential.

Four potential areas for privatization are shown by Table 9.

Table 9: Top 4 Least Contracted Out Commercial Activities, Ranked by In-House/Contracted Out Split

Commercial Activity	In-House/Contracted Out Split
Health Services	87/13
Social Services	85/15
Education and Training	73/27
Installation Services	69/31

Combining information from Tables 8 and 10, installation services appears to be a prime candidate for privatization framework analysis. It occupies a large portion of total commercial activities performed (18.4%) and its 69/31 split shows a considerable amount of work left for private contracting. Health services and social services are also candidates for framework analysis.

Table 10 is an estimate of the situation for Fiscal Year 1995.

Table 10: FY 1995 DoD Commercial Activity Work Years

•	**In-House**	**Contracted Out**	**In-House/ Contracted Out Split**
Services/Agencies	*Actual Work Years in thousands*	*Estimated Work Years in thousands*	*Percentages*
Army	105	56	66/34
Navy & Marine Corps	45	50	47/53
Air Force	51	81	39/61
Defense Agencies	49	5	91/9
TOTAL	**250**	**192**	**57/43**

Total Work Years in FY 1995 = 442,000

Source: Report on the Performance of Defense Commercial Activities, Office of the Assistance Secretary of Defense (Economic Security), 30 January 1995.

DoD predicts that in-house activities will occupy 57% of the work done, while contractors will provide the remaining 43%. These figures demonstrate a slight increase from 1994 in the reliance upon private firms for commercial activities, and an overall decrease in commercial work of almost 9%. Defense Agencies, in particular, demonstrate a significant drop of nearly 22% overall activity; in-house work decreases from 63,000 to 49,000 work years, while contract work declines from 6,000 to 5,000 work years.

Installation Infrastructure/Utility Services:

Installation services, representing 18.4% of all work done in-house as a commercial activity, is a prime candidate for privatization. Consider DoD's situation:

- DoD owns a physical plant with a replacement value of $525 billion.[42]
  - -- covers about 42,000 square miles
  - -- includes 430,000 buildings
  - -- average age of these facilities is around 42 years

- Operation and maintenance cost $85.8 billion in 1993 (of a $259 billion DoD budget).

- DoD's Office of Installations identified an $18 billion backlog of unfunded essential facility repairs (1993 study).

- Complete overhaul of utility services will require an estimated $20 billion.[43]

In an age of shrinking federal budgets, only the private sector has the necessary capital available for investment. Privatization may be the vehicle to connect public and private interests, fulfilling DoD's need to upgrade its base infrastructure.

Legislative pressures are forcing DoD to look at new methods to modernize aging installations. DoD estimates compliance with the Energy Policy Act and Executive Order 12902 will require investments of $3-$5 billion. The investment would yield at least $1 billion annually in energy savings, and another $1 billion in reduced operation and maintenance costs. Although compliance offers potential savings, only about $1.1 billion has been programmed for facility upgrades. Two specific upgrade examples show the possibility of cost savings available to DoD:

- modernizing 114 boiler plants on military bases would cost $2.1 billion, but would yield annual savings of $133 to $327 million

- investing $892 million in cogeneration at existing DoD facilities produces about $183 million in savings per year[44]

---

[42] "Physical plant" includes most tangible base infrastructure assets.

[43] Milton R. Copulos, The Forrestal Corporation: Meeting DoD's Utility Service Needs, The National Defense Council Foundation, 5 June 1995, pp. 2-7.

[44] Ibid.

When much of this DoD infrastructure was originally built, no comparable service provider was available to military facilities. In areas where local utilities were available, base commanders during the Cold War worried about sabotage and unreliable utility provision, such as power outages. Quite logically, DoD built its own vast infrastructure to provide, heat, water, and other necessities for use by military personnel. However, given the modern ubiquity of utility providers, and the collapse of the traditional communist threat, reliance upon private sector sources makes sense. When combined with the decrepit state of military infrastructure and its need for capital, turning to the private sector may be the best solution available.

There are two barriers to implementing successful privatization of utility services. The first is the set of Federal Acquisition Regulations (FAR), particularly its "government contract termination for convenience" clauses (Subpart 49.5 of the FAR).[45] As noted by National Defense Council Foundation President Milton R. Copulos, "these clauses permit the Federal government to arbitrarily break a contract for any reason it wants to without having to compensate the contractor for any losses they might incur. No rational investor would consider making the sort of long-term investment required for most utility projects in the face of the uncertainty this sort of clause creates."[46] The second barrier to attracting private sector investors is a lack of personnel possessing specialized knowledge of utility financing required for negotiating with the government. Again, defense budget reductions have made providing agencies with such experts a limited prospect.

How does the provision of utility services through the private sector rate according to our characteristics for success framework?

---

[45] Ibid., p. 7.
[46] Ibid.

Primary Factors

- **Market Structure**

  -- **Multiple suppliers** are generally present and are willing to provide the required services. Regional monopolies may hamper installation negotiators. **Multiple consumers** exist as private firms and homes already receiving power.

  -- **Resources** are not as mobile as those in perfectly competitive markets.

  -- **Information** about the nature of utility services is available and measurable.

  -- Electricity is a perfectly **homogeneous** good.

- **Legal and political constraints** currently dampen the likelihood of success, although certain individuals are working to establish an institute to act as a "broker" between utility providers and government agencies. One such organization is the Forrestal Institute, a non-profit, fee-supported intermediary structure currently seeking a legislative mandate.

- Utility **contracts** are not necessarily simple and enforceable, but the Forrestal Institute's work as a broker will minimize this concern.

  -- Provision of electricity according to a reliable schedule is an **explicit** duty.

  -- Requirements for success are **measurable**, specifically in terms of cost, quality, response time, reliability and sustainability.

  -- Appropriate **awards and penalties** can be determined through consultation with private receivers of energy or can be formulated after evaluating successful pilot projects.

Secondary Factors

- **Political constraints** must be addressed according to the regulations affecting each base. Legislators may prefer turning over some responsibility to a "blue ribbon" commission.

- The government's experience with other private installation maintenance plans will be a useful **precedent**, particularly the 38,000 work years performed in 1994. (See Table 5: FY 1994 DoD Commercial Activities by Major Functional Category.)

- **Supplier - consumer relations** can be facilitated by the Forrestal Institute.

Given the potential for success DoD, should pursue privatized modernization of some installation infrastructure, at least at several test sites.

Appendix A: Inherently Governmental Functions

According to OMB Circular A-76, Governmental functions normally fall into two categories:

1. The act of governing; i.e., the discretionary exercise of Government authority, including:

- criminal investigations
- prosecutions and other judicial functions
- management of Government programs requiring value judgments, as in direction of the national defense
- management and direction of the Armed Services
- activities performed exclusively by military personnel who are subject to deployment in a combat, combat support or combat service support role
- conduct of foreign relations
- selection of program priorities
- direction of Federal employees
- regulation of the use of space, oceans, navigable rivers and other natural resources
- direction of intelligence and counter-intelligence operations
- regulation of industry and commerce, including food and drugs

2. Monetary transactions and entitlements, such as:

- tax collection and revenue disbursements
- control of the treasury accounts and money supply
- administration of public trusts

Appendix B: Summary of Privatization Cost-Savings Studies

Results	Source	Study Title	Published	Notes
22% average savings	Department of Defense	Report to Congress on Commercial Activities Program	March 1984	Relatively old study
Costs increase over time when contracted out, but substantial savings remain	Government Accounting Office	DoD Functions Contracted Out Under OMB Circular A-76: Contract Cost Increases and Effects on Federal Employees	April 1985	Relatively old study
18% savings for functions retained in-house	Department of Defense	Report to Congress: DoD Commercial Activities Program	April 1986	Relatively old study
30% average savings	Office of Management and Budget	Contracting Out: Potential for Reducing Federal Costs	June 1987	20% savings for functions retained in-house, 35% for contracted out
30% savings across all Federal agencies	Office of Management and Budget	Enhancing Government Productivity Through Competition: A New Way of Doing Business Within the Government to Provide Quality Government at Least Cost	August 1988	Shows savings in all Federal agencies, not just defense
Savings are overstated	Government Accounting Office	OMB Circular A-76: DoD's Reported Savings Figures Are Incomplete and Inaccurate (GD-90-58)	March 1990	Federal employee morale is an important factor
29% average savings; $271,000 saved per A-76 review, $240 million annual savings	Center for Naval Analyses, Alan J. Marcus	Analysis of the Navy's Commercial Activities Program (CRM 92-226.10)	July 1993	20% savings for functions retained in-house, 40% for contracted out; remain over time
25% through "market testing,"(according to British MoD) 14-20% net savings	Defense Analysis Vol. 9, No. 3, Mathew R. Uttley	Competition in the Provision of Defense Support Services: The United Kingdom Experience	1993	Costs of conducting studies and implementation important

Appendix C: Problems with Privatization at Columbus AFB

The difficult introduction of privatized flight line maintenance at Columbus Air Force Base appeared to be the result of a number of interconnected factors, listed below:[47]

- The statement of work was not specific enough.
- The transition to a contractor workforce was not well planned and executed, either by the government or the contractor.
  - -- Transition was not phased in gradually.
  - -- There was inadequate communication concerning the scheduling of major maintenance checks by the government before the transition.
  - -- Planes were not maintained in good repair. (Columbus had the lowest T-38 mission readiness rate in ATC for the previous 8 months *preceding* the transition.)
- The workforce lacked quality and depth.
  - -- It was difficult to find qualified personnel to locate to Columbus, MS
  - -- Northrop experienced 30% turnover in the first year.
  - -- Lower levels of worker experience at Columbus, combined with lower manning levels, made attaining predicted efficiency levels difficult.
- The contractor did not fully understand ATC operating procedures, which hindered smooth integration into the base's mission.
- There were not enough people to do the job.
  - -- A vague statement of work and the military's belief that the contractor was going to perform additional tasks created this predicament.)
- The contract type stressed cost rather than quality; it was a fixed-cost contract instead of a cost-plus contract.

---

[47] Department of Defense Commercial Activities or Contracting Out Program, p. 36.

Appendix D: Commercial Activities Suitable for Privatization

The following list is a collection of activities currently conducted by DoD which may be candidates for privatization. The list was originally compiled in March 1995 by Don Henry and Nancy Moore, working for Carl Dahlman, in response to a request by the Commission on Roles and Missions of the Armed Forces (CORM). These analysts drew upon OMB Circular A-76 Attachment A, which lists "commercial activities" that should be considered for contracting out, and the Defense Performance Review. This latter source was a section of the National Performance Review, whose Appendix A included "Broad Areas for Potential Outsourcing." Henry and Moore also relied upon business literature and personal recommendations. Dahlman notes "with the exception of some of the finance and accounting functions (such as payroll), almost every activity on this list is now partially outsourced."[48]

- **Advertising and public relations services**

- **Architects, engineering, and construction services**

- **Audiovisual products and services**
  - -- photography (still, movie, aerial)
  - -- photographic processing (developing, printing, enlarging)
  - -- film and videotape production (script writing, direction, animation, editing, acting)
  - -- microfilming and other microforms
  - -- art and graphic services
  - -- distribution of audiovisual materials
  - -- reproduction and duplication of audiovisual products
  - -- audiovisual facility management and operation
  - -- maintenance of audiovisual equipment
  - -- television systems (studio and transmission equipment, distributions systems, receivers, antennae)

[48] Carl Dahlman, internal memorandum to Mike Hovey, from the Commission on Roles and Missions files, 6 March 1995.

- **Environmental**
  - -- data collection and analysis
  - -- geological surveys
  - -- laboratory testing services
  - -- management
  - -- restoration

- **Facilities**
  - -- maintenance, repair, and fabrication services
    - --- custodial and janitorial
    - --- machine, carpentry, electrical, plumbing, painting
    - --- industrial gas production and recharging
    - --- equipment and instruments
    - --- plumbing, heating, electrical, and air conditioning
  - -- management

- **Finance and accounting**
  - -- purchasing
  - -- accounts payable
  - -- payroll
  - -- debt collection
  - -- audit services

- **Food services**
  - -- operation of cafeterias, mess halls, kitchens, bakeries, dairies, and commissaries
  - -- vending machines
  - -- ice and water
  - -- catering

- **Information services**
  - -- automated information systems
    - --- systems analysis, design, development, simulation, operation, configuration management, maintenance
    - --- computer installation, operation, maintenance, repair
    - --- software installation, operation, maintenance
  - -- data entry
  - -- database design, implementation, management, configuration
  - -- data transmission
  - -- distributed systems, client/server
  - -- documentation
  - -- office automation
    - --- email
    - --- voice mail
    - --- fax

--- software packages: word processing, spreadsheets, etc. installation maintenance
--- hardware: workstations, PC, Macintosh installation, maintenance, repair
--- training
-- network (LAN, VAN, WAN) management, operation, Internet connectivity

- **Legal services**
  -- contract negotiations
  -- court reporting
  -- representation

- **Logistics services**
  -- bulk storage facilities
  -- distribution
  -- export management
  -- inventory management
  -- materiel management
  -- purchasing
  -- shipping (inbound and outbound)
  -- supply operations

- **Maintenance, overhaul, repair, and testing**
  -- aircraft and aircraft components
  -- ships, boats, and components
  -- motor vehicles
  -- combat vehicles
  -- railway systems
  -- electronic equipment and systems
  -- weapons and weapons systems
  -- medical and dental equipment
  -- office furniture and equipment
  -- industrial plant and equipment
  -- photographic equipment
  -- space systems

- **Manufacturing, fabrication, processing, testing, and packaging**
  -- ordnance equipment
  -- clothing and fabric products
  -- liquid, gaseous, and chemical products
  -- lumber products
  -- communications and electronics equipment
  -- rubber and plastics products
  -- optical and related products

-- sheet metal and foundry products
-- machined products
-- construction materials
-- test and instrumentation equipment

- **Municipal and public utility/installation services**
  -- education (elementary and secondary) facilities, management, teaching
  -- electricity generation
  -- emergency/ambulance services
  -- fire protection and prevention services
  -- gas services
  -- highway and street construction and maintenance
  -- law enforcement support activities
    --- courts/dispute resolution
    --- jail/military confinement facilities
    --- parking enforcement
    --- police
  -- museums
  -- sanitation
    --- refuse collection and processing
    --- street cleaning
  -- steam generation
  -- water treatment, supply, reclamation

- **Peculiarly military commercial functions** (activities performed by DoD that elsewhere are performed by municipal governments or public utilities; sometimes contracted out to private firms, but few private firms perform these activities themselves)
  -- college and graduate education facilities, management, teaching
  -- temporary billeting provision and facility management
  -- housing
  -- housing assistance
  -- exchanges
  -- commissaries
  -- family services/support centers
  -- laundry and dry cleaning
  -- recreational areas/facilities
  -- officer and enlisted clubs
  -- base operations and support
  -- reserve base operations and support
  -- air traffic control

- **Office and administrative Services**
  -- compliance auditing
  -- library operations

-- historian services
-- historical archival
-- on-line searches
-- mail/messenger
-- cataloging
-- management information systems, products, and distribution
-- procurement
-- property book maintenance
-- property disposal
-- stenographic recording and transcribing
-- technical research, writing, and editing
-- translation
-- travel
-- word processing, data entry, and typing services

- **Personnel management and support services**
  -- recruiting
  -- benefits administration
  -- training: technical, vocational, and specialized

- **Printing management and support services**
  -- facility management and operation
  -- printing and rebinding
  -- reproduction, copying, duplication
  -- blueprinting
  -- document storage and distribution

- **Training**
  -- commercial skills training
  -- military skills training
    --- provision
    --- maintenance of ranges and areas
  -- training material preparation and dissemination

- **Transportation of people and materiel**
  -- bus service
  -- carrier management
  -- air, water, road, and rail movement
  -- vehicle fleet/motor pool operation, service, repair, maintenance, management
  -- warehousing

- **Research and development**
  -- weapon system engineering
  -- engineering -- design support to production
  -- test piloting

-- weapon system development management
-- basic and applied research of military interest

- **Real property/grounds management**
  - -- design, engineering, construction, modification, repair and maintenance
    - --- buildings and structures
    - --- building mechanical and electrical equipment and systems
    - --- elevators, escalators, and moving walks
  - -- construction, alteration, repair, and maintenance of roads and other surfaced areas
  - -- landscaping, drainage, mowing and care of grounds
  - -- dredging of waterways

- **Security**
  - -- guard and protective services
  - -- systems engineering, installation, and maintenance of security systems and individual privacy systems
  - -- forensic laboratories

- **Studies and analyses**
  - -- cost-benefit analyses
  - -- statistical analyses
  - -- scientific data studies
  - -- mapping and charting
  - -- regulatory studies
  - -- defense, education, energy studies
  - -- legal/litigation studies
  - -- management studies

- **Systems engineering, integration, installation, operation, maintenance, and testing**
  - -- communications systems (voice, message, data, radio, wire, microwave, and satellite)
  - -- missile ranges
  - -- radar detection and tracking
  - -- satellite tracking and data acquisition
  - -- test facilities

- **Technical evaluations**

- **Veterinary and dietary services**

- **Weather**

Works Cited

Browning, Edgar K. and Browning, Jacquelene M. Microeconomic Theory and Applications. 4th Edition. New York: HarperCollins Publishers, 1992.

Copulos, Milton R. The Forrestal Corporation: Meeting DoD's Utility Service Needs. The National Defense Council Foundation, 5 June 1995.

Dahlman, Carl. Internal Memorandum to Mike Hovey from the Commission on Roles and Missions of the Armed Forces' staff records, 11 April 1995.

Directions for Defense: Report of the Commission on Roles and Mission of the Armed Forces. Government Printing Office, 24 May 1995.

Heivilin, Donna M. "Depot Maintenance: Issues in Management and Restructuring to Support a Downsized Military," General Accounting Office, Testimony before the Subcommittees on Readiness, Committee on Armed Services, House of Representatives, 6 May 1993.

Hovey, Mike. Internal Memorandum from the Commission on Roles and Missions of the Armed Forces' staff records, 11 April 1995.

Lippincott, Donald and Esther Scott. "The Coast Guard and LORAN: In-House vs. Contracting Out," John F. Kennedy School of Government Case C-16-86-706.0, 1986.

Marcus, Alan J. Analysis of the Navy's Commercial Activities Program. Center for Naval Analyses, CRM 92-226.10, July 1993.

Matthews, William. "Morale Is Their Business." Air Force Times 12 February 1996.

Office of Budget and Management Circular A-76, Government Printing Office, 1955.

Public and Private Roles in Maintaining Military Equipment at the Depot Level. Congressional Budget Office Study, July 1995.

Report on the Performance of Defense Commercial Activities. Office of the Assistance Secretary of Defense (Economic Security). 30 January 1995.

Rosenau, William. "Mess and Maintenance at Marine Boot Camp" Kennedy School of Government Case Study C16-87-792.0 and Epilogue C-16-87-792.1, 1987.

Thompson, Loren B. "The Privatization of Defense Support Functions: A Public-Sector Case Study," Alexis de Tocqueville Institution; Presented at the Kennedy School of Government, Harvard University, 28 April 1995.

U.S. Congress. House. Committee on Armed Services. Readiness Subcommittee. Department of Defense Commercial Activities or Contracting Out Program. 101st Cong., 1st sess., 27 April 1989.

Utt, Ronald D. How to Achieve $11 Billion in Savings from Privatization in FY 1996: A Special Report to the Budget and Appropriations Committees. Report by The Heritage Foundation. 22 February 1995.

Interviews Conducted between November 1995 and February 1996

Larry S. Barlow, Director for Administration, Commission on Roles and Missions of the Armed Forces

Ronald J. Bath, Col, NVANG, Professional Staff, Commission on Roles and Missions of the Armed Forces

James Cooney, Assistant Dean for International Student Programs, Kennedy School of Government

Daniel P. Cosgrove, President, Defense Facilities Corporation

Julia C. Denman, Assistant Director, National Security and International Affairs Division, Government Accounting Office

Robert I. Dodge III, Senior Analyst, National Performance Review

John D. Donahue, Associate Professor of Public Policy, Kennedy School of Government

Jendayi E. Frazer, Assistant Professor of Public Policy, Kennedy School of Government

Kenneth A. Goss, Director, National Defense Issues, Air Force Association

Brian Green, Senior Policy Analyst, National Defense Issues, Air Force Association

John A. Howes, President, Redland Energy Group

Philip Lacombe, Managing Director, Aerospace Education Foundation

Brian Mandell, Lecturer in Public Policy, Kennedy School of Government

Michael C. Mitchell, Director Government Business Relations, Lockheed Martin Corporation

Baker Spring, Senior Policy Analyst, National Security Issues, The Heritage Foundation

Paul Taibl, Director, Economic Securities Program, Business Executives for National Security

Bernard Trainor, LtGen, USMC (Ret.), Director, National Security Program, Kennedy School of Government

James F. Wiggins, Associate Director, National Security and International Affairs Division, Government Accounting Office

Peter B. Zimmerman, Associate Dean for Teaching Programs, Kennedy School of Government