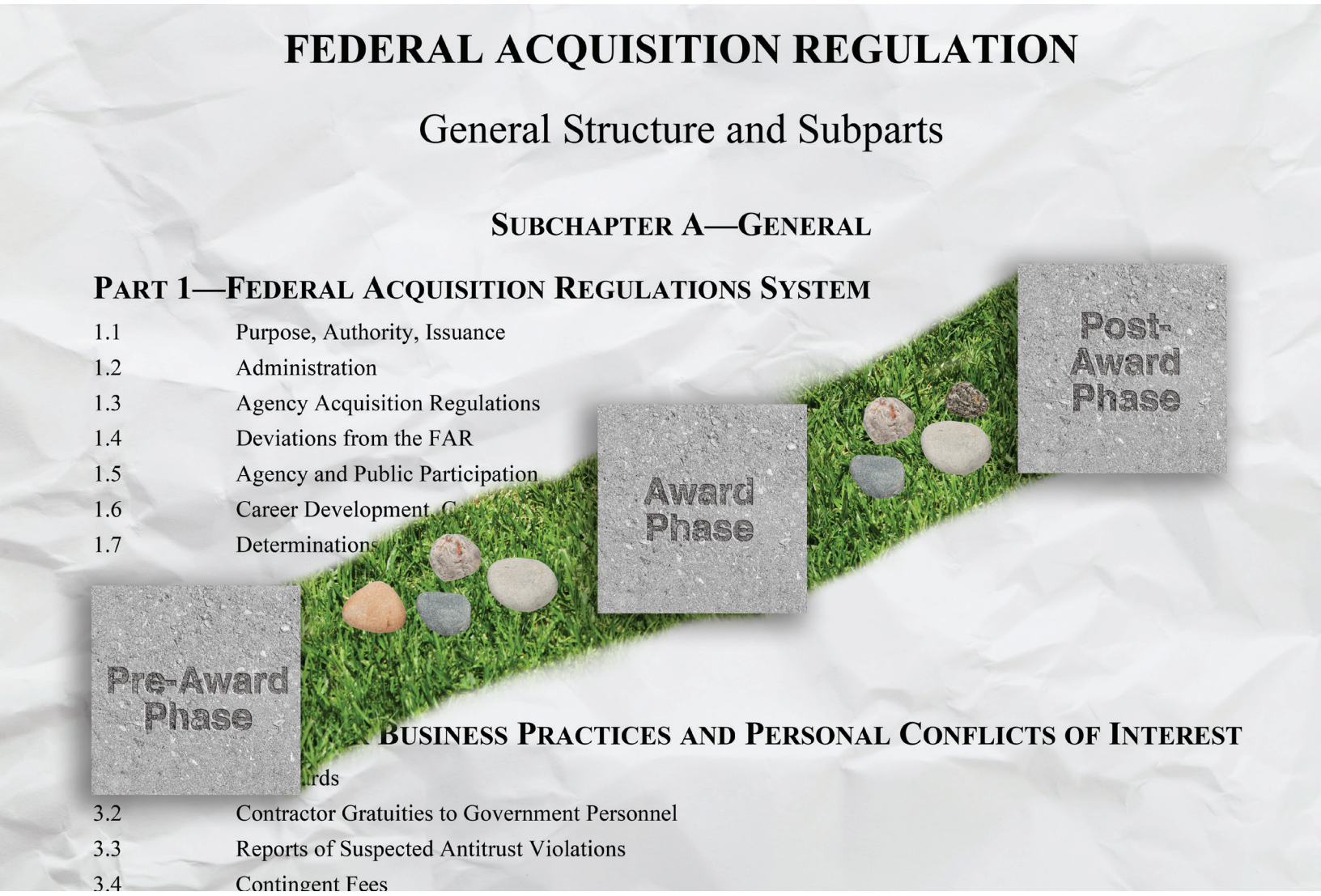
IBM Center for
The Business of Government

Acquisition Series

A Guide for Agency Leaders on Federal Acquisition

Major Challenges Facing Government



Trevor L. Brown
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Acquisition Series 2013

A Guide for Agency Leaders on Federal Acquisition: Major Challenges Facing Government

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IBM Center for
The Business of Government

Table of Contents

Foreword


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On behalf of the IBM Center for The Business of Government, we are pleased to present this report, *A Guide for Agency Leaders on Federal Acquisition: Major Challenges Facing Government,* by Trevor L. Brown, The Ohio State University.

This report has been prepared to assist government executives in understanding one of the most complex bureaucratic processes in government: the federal procurement system. Understanding this system is one of the key ingredients to a successful tenure in government. In the past, some government executives have run into significant issues related to a lack of knowledge about federal contracting. In addition, improved management of the federal acquisition process is crucial in this era of tight budgets.

This report answers seven key questions that government executives should know about the procurement process. These questions include:

- Why do federal agencies contract for goods and services?
- What is the overarching goal for any purchase?
- What are the three basic phases of the federal acquisition life cycle?

In addition to answering these seven key questions, Professor Brown also discusses the three acquisition challenges that government executives now face. These challenges include navigating the regulatory and oversight landscape, mitigating acquisition risk through contract design, and improving the acquisition workforce. For each of these areas, Professor Brown sets forth strategies for overcoming the challenge.

This report continues the IBM Center's long interest in the federal procurement process. The Center recently published *Controlling Federal Spending by Managing the Long Tail of Procurement* by David Wyld. In that report, Professor Wyld describes "tail spend," which is procurement outlays that are outside of an organization's core spending and core supplier groups, covering many miscellaneous expenditure categories

that are not managed as part of an organization's core operations. Wyld argues that the federal government can save money by tightening their control of tail spend.

We hope that this report, along with previous IBM Center reports on procurement, will be helpful to new public executives and agency leaders in better understanding the federal procurement system, and how it can be more effectively managed to both save money and improve performance.

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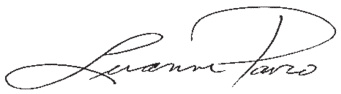

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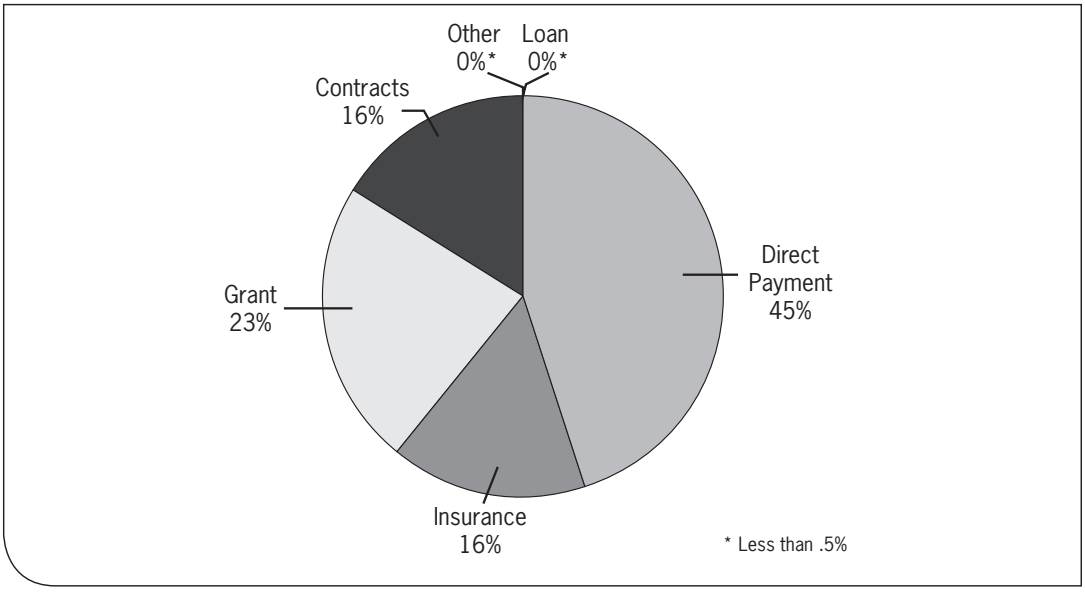
Introduction

Most agencies in the U.S. government rely on products—goods and services—acquired through contracts to perform core functions and pursue agency objectives.[1] In Fiscal Year 2012, the federal government acquired $517 billion worth of products through contracts. Contract expenditures amount to 16 percent of total federal spending (Figure 1).[2] Purchases range from simple products, like office supplies or landscaping, to much more complex products, like advanced weapons systems and program management services.

Figure 1: Percent of Federal Expenditures by Category—Fiscal Year 2012



This report will present:

- Information on the pattern and composition of federal contract spending
- What federal agency leaders need to know about the key aspects of federal acquisition
- Acquisition challenges facing agency leaders
- Strategies to overcome these challenges

A majority of federal agencies rely on products purchased through contracts for mission success. When agencies turn to the market to acquire a product, they typically evaluate the success of

1. The generic term "products" includes goods and services. The words "acquisition" and "procurement" are used interchangeably throughout this document. To be more precise, "acquisition" refers to the full life cycle of buying a product, while "procurement" refers to the literal purchase of the product.
2. The data for this figure come from USASpending.gov.

a purchase by employing three criteria:

- **Cost:** Did it come in under budget?
- **Schedule:** Was it delivered on time?
- **Quality**: Does the product do what the agency wanted it to do?

Acquisition Challenges for Agency Leaders

Challenge One
Navigating the Regulatory and Oversight Landscape

Challenge Two
Mitigating Acquisition Risks through Contract Design

Challenge Three
Improving the Acquisition Workforce

The above three criteria become the primary targets of oversight. Products that do not work, cost more than anticipated, or are inordinately delayed in delivery invite attention from legislative and executive overseers. When a contract does not work out along any one of these dimensions, oversight bodies like the Government Accountability Office (GAO) or the Inspectors General (IG) are called upon to investigate the root causes. Recent investigations have focused on overreliance on a single source secured through non-competitive procurements; turning functions that are thought to be inherently governmental over to private vendors; and outright waste, fraud, and abuse in the procurement process.[3] In 2009, concern over the rise in sole-source, cost-reimbursement contracts led the Obama administration to wade into the federal procurement process. President Obama called on the Office of Management and Budget (OMB) to guide agencies to increase the use of fixed-price contracts and competitive tendering procedures.[4]

Generally, political overseers and agencies themselves focus on acquisition when things go wrong. That's too late. A primary purpose of this report is to highlight the importance of acquisition in pursuit of agency objectives and educate agency leaders about how the acquisition process takes place. This report provides an overview of the regulatory and oversight architecture that governs acquisition practice, as well as the acquisition process during the pre-award and award phases—from the decision to buy rather than make a product, to the selection of a vendor, and on through the design of the contract to govern the exchange.[5]

This report is not designed for acquisition personnel, who are already experts on the finer points of purchasing. Instead, it is designed for those managing agencies and programs that rely on purchased products to fulfill agency missions and objectives. For some of these agencies, strategically managing acquisition is as important as managing human, technological, or financial resources. The intent here is to familiarize agency leaders and directors with the federal acquisition process so they can manage their agencies and programs effectively.

Much of what an agency executive does to achieve agency missions and implement agency programs involves the acquisition of goods and services. Many leaders outside the federal procurement system see it as a mysterious black box, the rules of which are explained by procurement staff and attorneys. But the effective delivery of government programs often rises and falls on whether a contractor understands the goals of the program for which they are

3. The GAO has done extensive work on these issues. See, for example, GAO. 2009. *Contract Management: Extent of Federal Spending under Cost-Reimbursement Contracts Unclear and Key Controls Not Always Used* (GAO-09-02) and GAO. 2010. *Federal Contracting: Opportunities Exist to Increase Competition and Assess Reasons When Only One Offer Is Received* (GAO-10-833).
4. See The White House, Office of the Press Secretary. March 4, 2009. *Memorandum for the Heads of Executive Departments and Agencies—Subject: Government Contracting* (http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-Subject-Government) (Accessed January 5, 2013).
5. Missing from this overview is what happens after the contract is signed and executed, the post-award phase—an equally important topic for agency leaders, but one beyond the scope of this report.

providing goods and services, and performs effectively based on a procurement process that translates goals into requirements, resource expectations, and metrics.

Because of the critical role that contracts play for over $500 billion in federal spending, executives who understand the basics of the procurement system will be much more adept at leveraging that system to fulfill their objectives than those who simply rely on technical experts. Knowing the rules of the road for acquiring goods and services can mean the difference between mission achievement and mission failure; this is especially true in the area of information technology, where some 80% of government spending is estimated to come from private-sector engagement.

In short, acquisition can be a strategic enabler for government executives, or it can lead to significant problems in program cost, schedule, and performance goals. This report provides executives with a roadmap for understanding how best to proceed when interacting with a critically important element of government management.

This report is based on a variety of sources:

- Aggregate summary data on acquisition across the federal government from USASpending.gov
- Primary data on contract actions by federal government agencies extracted from the Federal Procurement Data System
- Interviews with federal acquisition personnel
- Regulatory documents governing federal procurement
- Extant analysis conducted by oversight bodies like the GAO and industry groups like the Professional Services Council

The Appendix provides more detail on these sources, the interviews, and the data presented here.

Case Example: The Importance of Procurement

On May 2, 2011, Osama bin Laden, the mastermind of the terrorist attacks of 9/11, was hiding out in the outskirts of Peshawar, Pakistan. Intelligence gathered by the U.S. Central Intelligence Agency led American military personnel to a compound protected with extensive security fencing in a wealthy residential neighborhood. With the Pakistani government unaware, U.S. President Barack Obama authorized four helicopters carrying 79 U.S. Navy Seals to land inside the compound, secure the capture of Bin Laden, and then fight their way out if necessary. At one a.m., the Navy Seal team killed Bin Laden and took flight from the scene with his body in tow.[6]

Extensive popular and press coverage of the mission focused on the hard-won intelligence that revealed Bin Laden's location and the heroic actions of the 79 Navy-trained and battle-tested commandos.[7] Less attention focused on an equally essential element to the operation's success: the MH-60 Black Hawk helicopters that piloted the Navy Seals in and out of the compound. The Black Hawk helicopter is a remarkable piece of engineering: its titanium-enforced rotary blades can rocket its crew skyward at a rate of 3,000 feet per minute and then propel the helicopter over land at speeds near 180 miles per hour. Reports indicate that the Navy enhanced the capabilities of the Black Hawks used in the Bin Laden mission by adding radar-evading technologies.[8] This daunting combination of power, agility, and stealth allowed the commandos to quickly and surgically enter and exit the compound. Even when things went wrong—one of the helicopters crashed in the compound—the remaining three helicopters had sufficient capacity to safely extricate all U.S. personnel and Bin Laden's body.

Like almost all of the vehicles and weapons in the U.S. military's vast arsenal, the Black Hawk is a product, purchased through a contract with a private vendor. The Black Hawks used in the Bin Laden raid were acquired through a multi-year, multi-billion-dollar contract with Sikorsky, a storied supplier of aircraft to the U.S. military.[9] One of the reasons the Black Hawk has remained in active service since its introduction in the late 1970s is that procurement personnel within the Army and Navy have worked collaboratively with Sikorsky to design and develop a base aircraft that can be relatively easily adapted for different missions. U.S. military personnel spend nearly as much time negotiating, monitoring, and managing the relationship with the vendor as they do planning and training to use the craft. The reason? No ready supply of Black Hawks, no mission success. Figuring out how best to buy high-quality products like the Black Hawk at an affordable price and in a timely manner is a core managerial function.[10]

6. Mark Mazetti, Helene Cooper, and Peter Baker. May 2, 2011. "The Death of Osama bin Laden: Behind the Hunt for Bin Laden," *The New York Times.* http://www.nytimes.com/2011/05/03/world/asia/03intel.html?pagewanted=all&_r=0 (accessed 12/15/2013)

7. For example, the critically acclaimed film "Zero Dark Thirty" ignited a firestorm in Washington for highlighting the role interrogations played in securing intelligence that led to the discovery of Bin Laden's location. See Steven Zeitchik. February 6, 2013. "'Zero Dark Thirty' Writer: Torture 'clearly part' of finding Bin Laden," *Los Angeles Times.* http://www.latimes.com/entertainment/envelope/moviesnow/la-et-mn-zero-dark-thirty-mark-boal-torture-20130206,0,3311442.story (accessed 2/9/2013)

8. Sean D. Naylor. May 4, 2011. "Mission Helo was Secret Stealth Black Hawk," *ArmyTimes.* http://www.armytimes.com/news/2011/05/army-mission-helocopter-was-secret-stealth-black-hawk-050411/ (accessed 1/15/2013).

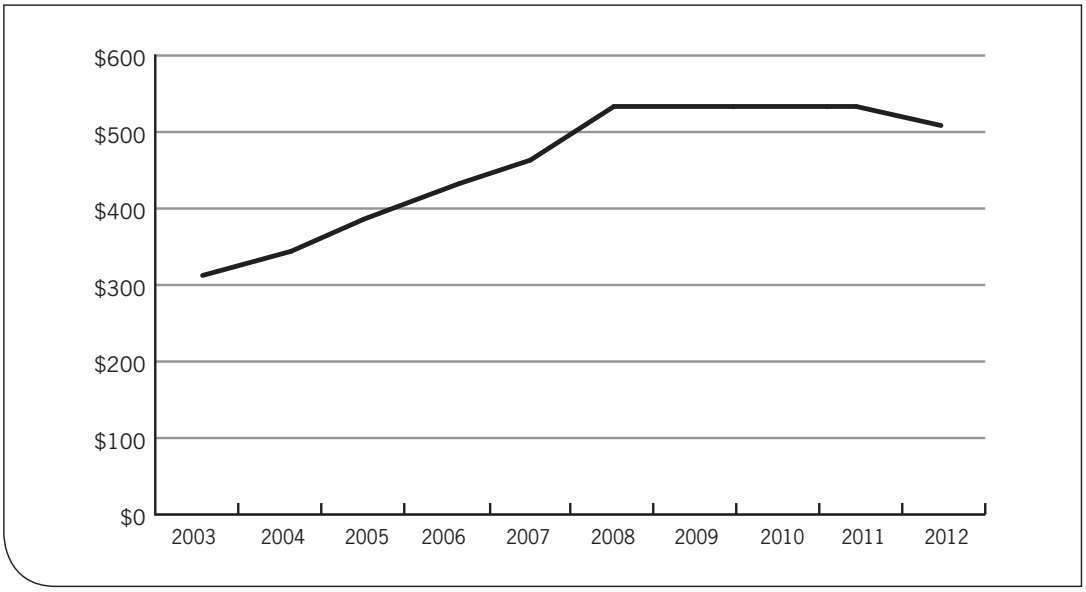
9. Dec. 12, 2007. "Press Release: U.S. Army/Navy Signs 5-Year Production Contract for UH-60 Helicopters." http://www.sikorsky.com/About+Sikorsky/News/Press+Details?pressvcmid=b8dea96c2e289110VgnVCM1000001382000aRCRD (accessed 1/22/2013)

10. This is by no means the first time the case has been made that acquisition is at the core of federal agency operations, merely the most recent. An example is the 2007 *Report of the Acquisition Advisory Panel to the Office of Federal Procurement Policy and the United States Congress* (https://acquisition.gov/comp/aap/24102_GSA.pdf): "The federal acquisition workforce is an essential key to success in achieving the government's missions. Procurement is an increasingly central part of the government's activities" (p. 352).

Trends in Federal Acquisition

Figure 2 reports total federal spending through contracts from Fiscal Year 2003 through Fiscal Year 2012.[11] Over this 10-year period, federal contract spending grew from $318 billion in 2003 to a high mark of $541 billion in 2008. Expenditures have leveled off since then, dipping to $517 billion in 2012. When all the contract expenditures across all federal agencies are combined, the U.S. federal government is the largest purchaser in the world, dwarfing major multinational corporations.

Figure 2: Total Federal Spending on Contracts—Fiscal Years 2003–2012 (in billions of dollars)

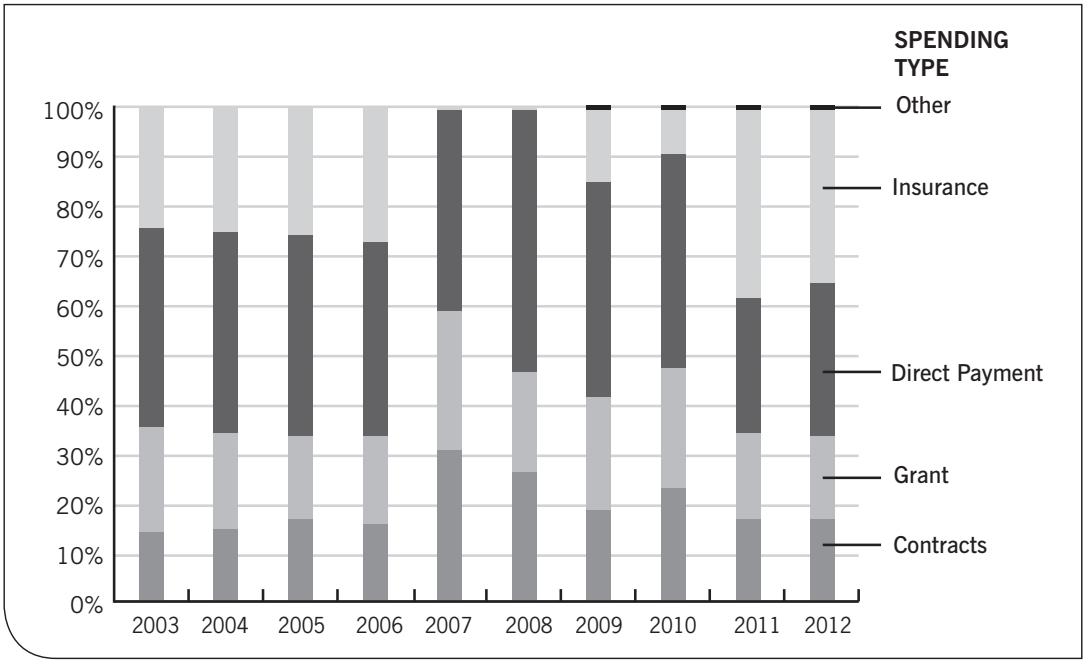


Contract expenditures represent a significant portion of the $3 trillion annual U.S. federal budget. Figure 3 presents total federal expenditures by major category—contracts, grants, direct payments, insurance, loans, and other miscellaneous expenditures—over the same 10-year period. Contract expenditures make up just under 20% of total federal expenditures on average across this period, with the highest percentage in 2007 and 2008. When non-discretionary expenditures—entitlements, loans, transfers, etc.—are excluded, contract spending makes up about half of discretionary spending annually.

Agencies vary in their reliance on purchased products. For some agencies, like the Department of Defense, the acquisition of new products—weapons, transport vehicles, communication technology—is essential to achieving mission success. Other agencies are less dependent. About two-thirds of all federal agencies expend monies annually on contracts. In Fiscal Year

11. The data for all figures in this section come from USASpending.gov.

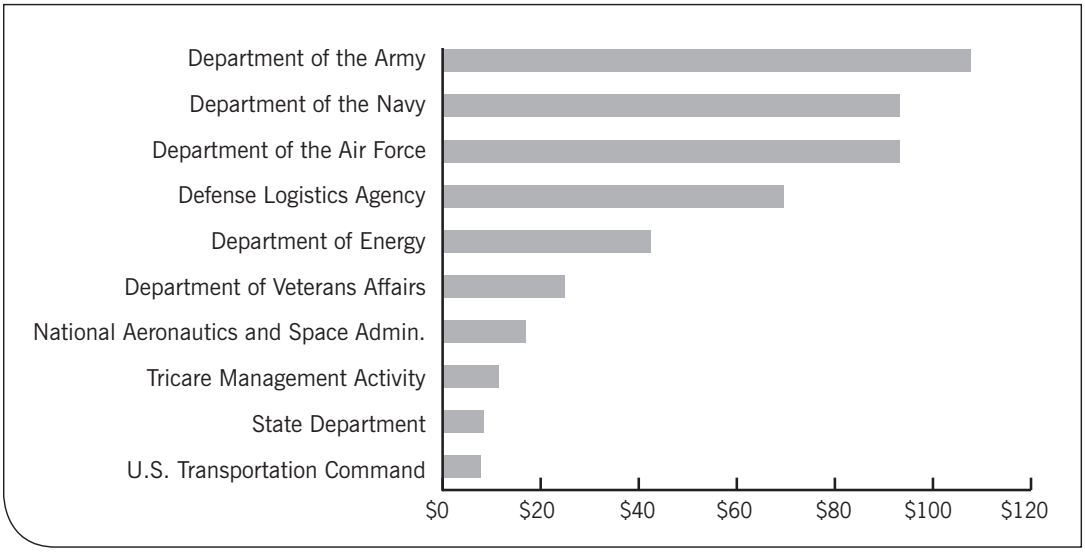
Figure 3: Federal Expenditures by Category—Fiscal Years 2003–2012



2012, the average level of contract expenditures was about $2 billion per agency. There is a great range around this average, with some agencies spending tens of thousands of dollars on contract expenditures while the top agencies spend tens of billions of dollars.

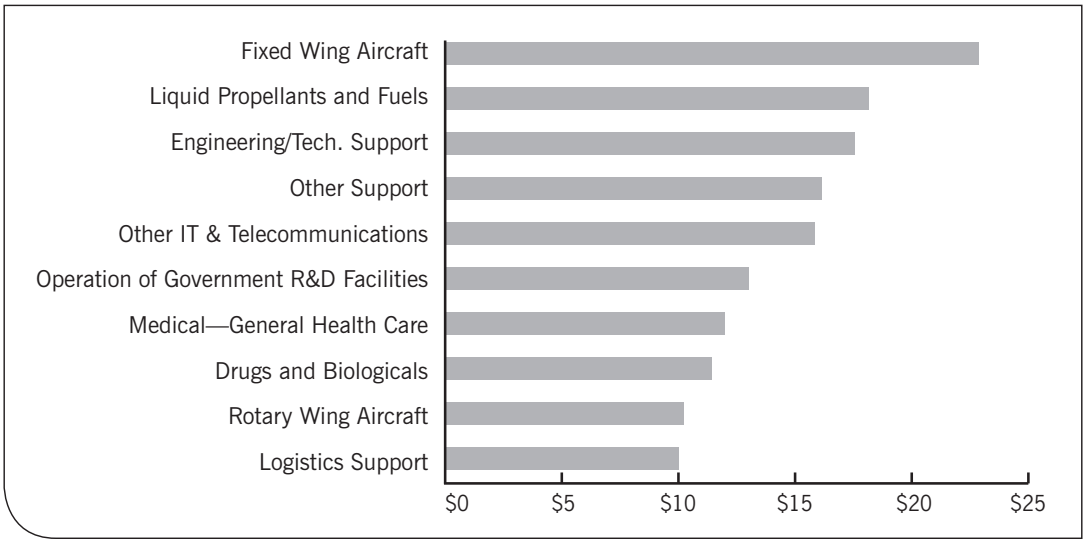
Figure 4 lists the 10 biggest contract spenders in 2012. Agencies and departments within the Department of Defense occupy six of the top 10 spots: the Departments of the Army (1), Navy (2), and Air Force (3), the Defense Logistics Agency (4), Tricare Management Activity (8), and the U.S. Transportation Command (10). Combined, these six agencies spent over $335 billion in fiscal year 2012, about 65% of all contract expenditures that year. The biggest non-defense contracting agency—the Department of Energy—spends around $25 billion annually on contracts.

Figure 4: Top Ten Federal Contract Agencies—Fiscal Year 2012 (billions of dollars)



Federal agencies buy over 5000 different kinds of products, from copy paper to guided missiles.[12] Figure 5 reports the top 10 contract expenditure categories for fiscal year 2012. Even though the figure only reports 10 different product categories, it shows the range of product types federal agencies purchase. Five of the top 10 product categories are for goods: fixed wing aircraft (1), liquid propellants and fuels (2), other IT and telecommunications (5), drugs and biological (8), and rotary wing aircraft (9). The other five product categories are for services: engineering and technical support (3), other support (4), operation of government research and development facilities (6), medical and general health care (7), and logistics support (10).

Figure 5: Top Ten Federal Contract Expenditure Categories—Fiscal Year 2012 (billions of dollars)

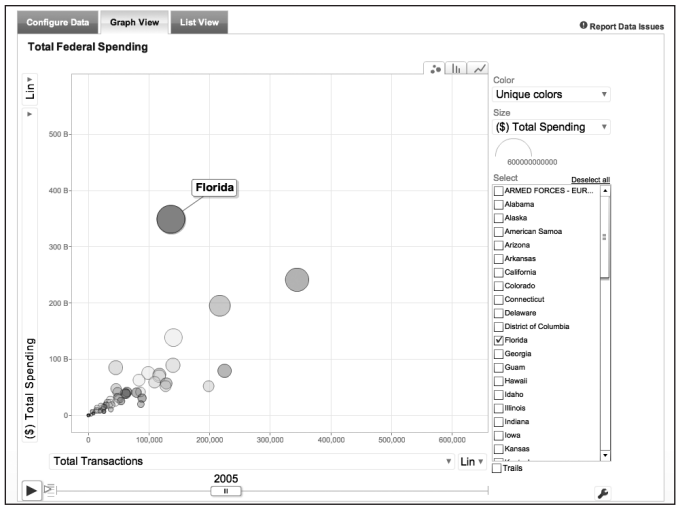


12. The U.S. federal government relies on the Product Service Code (PSC) categorization. Each individual product gets placed in a product category like "lease or rental of facilities" or "valves."

USASpending.gov

If you want to learn more about how much the federal government spends on contracts and other categories of expenditures, check out USASpending.gov (see the screenshot below), an easy-to-use website that draws together spending data from a variety of public sources. The website and accompanying database are a result of the Federal Funding Accountability and Transparency Act of 2006. The Act requires the publication of data related to federal funds transferred to other actors and entities (e.g., state and local governments, private firms, nonprofit organizations) since 2007, although the site draws on data from as far back as 2000.

The site allows users to create their own figures and graphs based on the data (see the screenshot below that shows total federal expenditures by state). Users can drag the toggle on the bottom of the screen from left to right and see how federal spending increases or decreases in each state from 2000 to 2012. Users can narrow their inquiry in any number of different ways, focusing on contract expenditures for a specific agency in single year, for example. The website offers agency leaders as easy way to get an overview of their agency's contract spending over the last decade and examine how it compares with other agencies' spending.



What Agency Leadership Needs to Know About Federal Acquisition

Generally political overseers and agencies themselves focus on acquisition when things go wrong. That's too late. A primary purpose of this report is to highlight the importance of acquisition in pursuit of agency objectives and educate agency leaders about how the acquisition process takes place. This section provides an overview of the regulatory and oversight architecture that governs acquisition practice, as well as the acquisition process during the pre-award and award phases—from the decision to buy rather than make a product, through to the selection of a vendor, and the design of the contract to govern the exchange.

Why Do Federal Agencies Contract for Goods and Services?

The modern government agency is awash in responsibilities. Contracting is pursued as a means to assist in fulfilling those responsibilities. When agencies pursue contracting to reduce costs, they do so not simply for the sake of thriftiness, but also because by lowering costs through contracting they can best use resources across myriad functions. Government agencies decide to buy certain things and make others for many different reasons. Potential cost savings is only one of them. Agencies seek products that they can afford, that are delivered when they need them, and that perform the tasks required to achieve mission objectives.

When agencies turn to a private firm to produce a desired product, it is not simply because the firm is a "better" manufacturer, but also because the firm's product improves the agency's ability to perform its functions. Government agencies often buy products from the market because contracting enhances their ability to pursue their missions.

How Do You Start? Beginning the Acquisition Process

When an agency acquires a product, whether a good or a service, it generally enters into a contract with a supplier.[13] Think of a contract as all the legally binding terms that apply to an exchange, namely the set of rules that define the product in the exchange and the buyer's and seller's rights and obligations to execute the transaction.[14] Formally writing down the terms of the exchange offers some degree of confidence that the transaction will deliver beneficial outcomes for both parties. All federal contracts are backed by public laws that provide some structure on how purchasing agencies and sellers should interact in an exchange.

13. Government agencies have two other primary acquisition vehicles at their disposal: grants and cooperative agreements. When a government agency uses a grant it provides resources to a recipient to perform some activity, but is not involved in monitoring or directing the activity. A cooperative agreement incorporates involvement between the agency and the recipient, primarily at the planning stage (i.e., when the Scope of Work is crafted), but less active involvement during the period of performance. A contract, on the other hand, presumes a higher degree of specification of the activity and involvement during the performance of the activity.
14. See, for example, Oliver Hart and John Moore. 2008. "Contracts as Reference Points." *The Quarterly Journal of Economics* 123(1): 1–48.

Government Procurement: From the 1960s to the Present

Reflecting on the launch of his mission to orbit the earth on February 20, 1962, former U.S. astronaut John Glenn said: "All I could think about was that the two million parts I was sitting in were built by the lowest bidder." Glenn's prosaic thoughts as he hurtled through space illustrate a seeming truism of federal contracting: government agencies buy from the market because it's cheap.

Glenn can be forgiven for his concerns, since in the early 1960s the rules governing federal contracting pushed agencies to select bidders that offered the cheapest product. Now, half a century later, it is incorrect to assume that government agencies contract solely to reduce costs and always select the lowest bidder. Government agencies can now decide to buy certain things and make others for many different reasons. Potential cost savings is only one of them. It is equally misguided to assume that private firms are inherently superior at making things and that the job of government agencies is simply to buy and use the products. Many government agencies—the National Aeronautics and Space Administration (NASA), the Department of Defense, the Department of Energy—are first-in-class producers.

To start, an agency needs the authority and funds to enter into a transaction, hence all federal contracts trace their roots to authorization and appropriation legislation in Congress. Once an agency has the ability and the means to enter into a contract, the acquisition process is primarily governed by the Federal Acquisition Regulation (FAR). The job of government procurement personnel is to work within the regulatory rules governing federal acquisition to seek out the best deal for the agency.

What is the Overarching Goal for Any Purchase?

The primary regulation governing contracting, the FAR lays out the overarching goal for any purchase:

> The vision for the Federal Acquisition System is to deliver on a timely basis the best value product or service to the customer, while maintaining the public's trust and fulfilling public policy objectives.[15]

Achieving this goal requires balancing a trinity of competing criteria:

- Cost
- Schedule
- Performance

Government procurement personnel, and the system governing the federal acquisition process, attempt to balance all three of these criteria with any acquisition. Sometimes agencies can achieve these ends by making the product themselves, while in other cases other organizations—private firms, nonprofit organizations, other government agencies—can deliver better products faster and cheaper.

15. Federal Acquisition Regulation. Chapter 1, Part 1, Subpart 1.102 (a) State of Guiding Principles for the Federal Acquisition System.

What are the Key Components of the FAR and the Regulatory Architecture Governing Federal Acquisition?

The FAR spans hundreds of pages,[16] and its overall length, including seven component subchapters (see right), creates the impression that it is complex and highly restrictive, just another tome in the vast armory of stifling government bureaucracy.

Organization of the Federal Acquisition Regulation

Subchapter A—General
Subchapter B—Competition & Acquisition Planning
Subchapter C—Contracting Methods and Types
Subchapter D—Socioeconomic Programs
Subchapter E—General Contracting Requirements
Subchapter F—Special Categories of Contracting
Subchapter G—Contract Management
Subchapter H—Clauses and Forms

However, the FAR is less cumbersome and burdensome than it might seem to be at first. At its core, it is a set of rules laying out the boundaries of what's permissible, but is also written with flexibility in mind so that government procurement personnel can tailor the rules to meet the specific conditions of each purchase. It is important to know the following about the FAR:

- **There is flexibility in issuing supplements to the FAR.** In the spirit of flexibility, each agency has the authority to issue a supplement to the FAR, tailored to the specifics of the products it buys to serve its needs. An agency's FAR supplement specifies the clauses and prescriptions to be lifted from the basic FAR, as well as the new clauses and prescriptions to complement the core FAR elements.

  Most federal agencies have opted to produce some kind of supplement. For example, the Department of Defense operates under the Defense Federal Acquisition Regulation Supplement, or DFARS; the Department of Health and Human Services uses the HHS Acquisition Regulation, or HHSAR; and the Department of Homeland Security relies extensively on the basic FAR with a few supplements called FAR Class Deviations.

  In contrast with this flexibility, certain elements are required of almost all contracts. For example, suppliers have to provide a drug-free workplace and all aspects of an exchange are public under the Freedom of Information Act with exemptions for classified information (e.g., trade secrets; confidential commercial information, individual medical information). When a contract exceeds $650,000, the supplier must have a subcontracting plan for women, small businesses, and minorities.

- **The FAR is subject to review and approval by OMB.** All agency supplements to the FAR are subject to review and approval by the Office of Federal Procurement Policy (OFPP), a unit of OMB tasked with setting procurement policy for all federal agencies. Think of OFPP as the author of the FAR and the approver of any deviations from the FAR.

  Because contracting is a delegated power from Congress, acquisition practice also comes under the jurisdiction of the federal judiciary. However, with the passage of the Administrative Procedure Act of 1946, Congress transferred some judicial oversight, in this case review of contract execution, to the executive branch. The implementation of the FAR and its supplements, as a component of the Code of Federal Regulations, is subject to review by federal administrative law judges (ALJ) who conduct administrative trials to resolve disputes between agencies and suppliers.[17]

16. The FAR is a component of the Code of Federal Regulations, specifically *Title 48: Federal Acquisition Regulation System*.
17. ALJs are merit-based employees appointed and reviewed through the Office of Personnel Management so they function as federal executive branch employees rather than judicial appointees. Most ALJs are embedded within a specific agency and hear contract disputes for that agency, but they are not agency employees. This promotes independence in their decision-making.

- **Inspectors General and the GAO play an important role in oversight of the FAR.** In addition to OMB and OFPP, two executive and legislative oversight units are also important players in the regulatory architecture governing contracting: the Inspectors General (IG), who seek out any waste, fraud, and abuse in procurement practice at the agency level; and the GAO, which conducts investigations and evaluations of procurement practice upon request of Congress and serves as the arbiter in any bid protests initiated by vendors. Reports and testimony from the IGs and the GAO are often primary evidence in any oversight hearings focused on agency acquisition practices and processes.

What are the Three Basic Phases of the Federal Acquisition Life Cycle?

There are three basic phases in the acquisition process—pre-award, award, and post-award.

- The **pre-award phase** includes the tasks associated with identifying the product's characteristics, assessing the market for the product, and consulting the regulatory guidance on how to solicit the product.
- The **award phase** includes the tasks associated with actually purchasing the product; namely, running the solicitation, evaluating proposals, and negotiating the terms of the purchase with whatever vendor is selected.
- The **post-award phase** includes all the tasks associated with executing the contract, notably monitoring the performance of the vendor, evaluating and testing the product upon delivery, implementing any relevant incentives, providing compensation, renegotiating contract terms, and terminating or renewing the contract.

The remaining sections focus on the pre-award and award phases, respectively.

What Do You Need to Know About the Pre-Award Phase of Federal Acquisitions?

The first step in any acquisition is to define what's needed and determine whether a product procured from the market can fulfill that need. That means program personnel, not procurement personnel, are the starting point. If program personnel determine that a program objective requires the acquisition of a product—such as a boat to locate and rescue sailors lost at sea if the purchasing agency is the U.S. Coast Guard—program managers turn to procurement personnel to initiate an acquisition. This commences the pre-award phase.

The next step is for program personnel to tell procurement personnel, such as government buyers or contract specialists, as much as they can about what functions and tasks they intend to perform with the product. Sticking with the example of a boat to rescue sailors lost at sea, these are key pre-award questions that should be posed and answered to identify the intent and purpose of the prospectively acquired product:

- How fast does the boat need to go?
- What types of conditions will the boat operate in?
- How long does the boat need to be at sea? How many people will be on the boat at any given time?

Answers to these questions inform one of the most important activities in procurement: requirements definition. Key success factors in requirement definitions include:

- **Getting the requirements definition right.** Defining a product's requirements might include the inputs and activities required to build the product (e.g., steel forged into a uniform boat hull rather than individual steel pieces welded together), the outputs of the production process (e.g., details of the boat itself, such as its length and width), the outcomes to be achieved with the product (e.g., a reduction in the amount of time it takes to reach a sailor lost at sea), or some combination of these elements. The more program personnel can instruct procurement personnel about what exactly it is that they want to buy, the easier the purchase is.

Contracting Standards

Federal procurement professionals pursue "best value" using one of two basic standards.

Tradeoff Process
Procurement professionals balance the tradeoff between the product's price and its ability to meet the agency's performance requirements.

Lowest Price Technically Acceptable (LPTA)
When the product meets a minimum set of technical performance criteria, procurement professionals use the product's price as the principal selection criterion.

- **Defining broad mission requirements, rather than narrow administrative requirements.** Requirements definition can often be pursued narrowly, focused primarily on the "specs" of the product. It is important to get the details of the product defined as clearly as possible, but sometimes this narrow focus can lead to unnecessary specification of aspects of the product that are non-essential and largely administrative (e.g., produce 50 design plans of the proposed product, when the purchasing agency receives the design it wants after five plans). When defining requirements, procurement personnel should use their agency's organizational mission and goals to guide their specifications. Ideally, requirements should direct vendors to deliver products that achieve program and mission goals and minimize the time and resources spent on non-mission administrative activities. If requirements definition is focused too narrowly on administrative compliance, agencies will pay for a product that fails to contribute to mission success regardless of the type of contract they use.

- **Targeting "best value" or lowest price technically acceptable (LPTA).** In federal acquisition practice, the target is to secure the best deal, formally referred to as "best value" in the primary regulations governing federal procurement, the FAR. According to the FAR, "'Best value' means the expected outcome of an acquisition that, in the Government's estimation, provides the greatest overall benefit in response to the requirement."[18] For any purchase, "best value" exists somewhere on a continuum between two poles: "tradeoffs" and "lowest price technically acceptable" (LPTA).[19] On one end of the continuum, when procurement personnel source a product using a tradeoff process, they balance cost, schedule, and performance. Federal procurement personnel don't have to select the lowest bidder when they make a tradeoff purchase. They might select a more expensive vendor because that vendor can deliver a product that best meets the agency's performance requirements (e.g., a fast-moving, high-capacity helicopter that's difficult to detect).

  The alternative approach is to tighten the scope of the acquisition criteria by selecting based on LPTA standards. According to the FAR, "The lowest price technically acceptable source selection process is appropriate when best value is expected to result from selec-

18. Federal Acquisition Regulation (FAR), Chapter 1, Part 2, Subpart 2.1—Definitions 2.101(b) (3)
19. FAR, Chapter 1, Part 15, Subpart 15.1

tion of the technically acceptable proposal with the lowest evaluated price."[20] If the agency can specify exactly what it needs, maybe even down to the types of rivets, then so long as a bidder can deliver to those technical specifications, cost or price should be the primary criteria in making a source selection decision.

Simple versus Complex Products

Government agencies buy two types of products: simple and complex. **Simple products** are easy for purchasing agencies to describe and write down in a contract, and are easy for vendors to produce and price. **Complex products** are difficult for purchasing agencies to specify in a contract, and are difficult for vendors to produce and price because they require specialized investments that cannot easily be transferred to other commercially viable activities.

- **Identifying simple versus complex products.** Some products, whether they be goods or services, are easy to describe and easy to make. That is, it is easy to write down in a contract the exact requirements of the product. It is also easy for vendors to develop the production process to create the product. That doesn't mean that it's cheap to produce. Some easy-to-make products—like warehouses—require expensive, upfront fixed investments. Instead, simple means that it's easy to figure out how to make the product, and the investments required to make it can be relatively easily transferred to some other activity if the purchasing government stops buying the product. These products are simple.

  If an agency is buying a simple product, going the LPTA route is the advisable course of action. Procurement personnel can obtain the cheapest version of the product that meets the specifications and save the agency's resources for other purchases or even other activities.

  Complex products, on the other hand, are difficult to describe and difficult to make. When government agencies procure a complex product, like an information technology system, it's difficult to write down in a contract everything the purchasing agency wants the product to do and how it should be made. This makes it difficult for the vendor to figure out how to make the product and, consequently, how much it will cost. Complex products are also difficult to make. These products require what are called specialized investments. If the purchasing agency opts to stop purchasing the product, it's difficult and costly to transfer the investments to some other product that a different purchaser might want.

  If the agency is buying something less conventional that's difficult to describe in detail, such as a space shuttle, it's much harder, if not impossible, to nail down the technical standards. Here it's better to weigh the tradeoffs between how much the product will cost, when it can be delivered, and what it will be able to do for the agency. The tradeoff process provides procurement personnel the discretion to make a purchase that balances the agency's needs and means.

- **Competitive bidding process.** Once the product is sufficiently defined and the evaluative sourcing criteria in place—that is, tradeoff versus LPTA—procurement personnel turn to the FAR to determine how the solicitation should be carried out. The strong preference in the FAR is for competitive bidding procedures in which multiple vendors can provide bids. According to the FAR, "… contracting officers shall promote and provide for full and open competition in soliciting offers and awarding Government contracts."[21]

20. FAR, Chapter 1, Part 15, Subpart 15.1—Source Selection Processes and Techniques 15.101-2 (a)
21. FAR Subpart 6.1 Full and Open Competition 6.101 (a).

The advantage of full and open competition is straightforward: potential suppliers compete with each other on the three evaluative criteria. Through competition, procurement personnel receive information about the tradeoffs between cost, schedule, and performance. One vendor may be able to deliver a product more cheaply, while another may deliver a better-quality but more expensive product.

The FAR includes exemptions to the competition requirement, such as when a product needs to be acquired quickly or when a single proven supplier can deliver a product to the exact specifications of the purchasing agency, but the strong preference is for full and open competition.

- **Reduce the burden in applying for and executing the contract.** Current RFPs are often loaded with administrative requirements that do not directly contribute to the delivery of a product that meets the agency's mission objectives. This causes both contractors and procurement staff to focus resources on administrative processes, such as unnecessary repetition of certifications that require legal review. Burdensome administrative requirements and constrained resources leave less time for contractors and agency staff to secure a product that achieves substantive mission outcomes. Alternatively, when resources are not limited, the price of contracts will tend to rise as companies seek to recover costs by increasing their overhead rates. Neither outcome is good for government.
- **Preparing and posting a Request for Proposal.** Once a determination is made about the means of solicitation, procurement personnel post a Request for Proposal (RFP) which specifies the product's requirements, the format and due date for proposals, and the criteria by which proposals will be evaluated (e.g., price, technical quality, past performance), along with standard proposal requirements like assurance of a drug-free workplace or a subcontract proposal.[22]

  With the RFP out, procurement personnel can be passive and wait for queries from potential suppliers, or they can be proactive by providing information more directly. The primary proactive step is to hold pre-bid conferences or "industry days" with potential suppliers. In addition to providing more specificity about what's desired, these activities can also be used to market the RFP to increase the number of bidders. After this inquiry period, the wait begins for bids and the pre-award phase comes to a close.

What Do You Need to Know About the Award Phase of Federal Acquisitions?

The award phase commences once the due date for proposals passes and all bids are in. The first pass-through of proposals focuses on verifying that all the required components are in place. FAR requirements are that incomplete proposals or those that come in after the required due date and time are excluded from review. Once proposals have been verified for completeness, evaluation begins. Three basic criteria in the proposal evaluation process are discussed here:

- Cost
- Schedule
- Performance

22. Procurement personnel can seek information from the market before an RFP with a Request for Information (RFI) which basically solicits information from potential vendors about whether they would be interested in and capable of producing a product.

Given the prominence of these three criteria in procurement, they typically form the basis for proposal evaluation:

- **Evaluations of cost proposals** are typically highly technical and generally follow a prescribed accounting approach. OMB's Circular A-21 establishes the cost accounting standards for setting the price of any bid. The cost calculations are in large part a function of the payment method, e.g., fixed-price or cost-reimbursement. The payment method, one of the primary contract design choices, is reviewed on page 24. At this point, in summarizing the basic process, contracting specialists review cost proposals comparing proposals against each other and against any market data available for the same or similar products.
- **Evaluations of schedule** are fairly straightforward. RFPs typically identify either a specific delivery date or the period of service for delivery of the product. In cases where past performance is allowable as part of the evaluation, procurement personnel can see whether a vendor has previously delivered products on time.
- **Evaluation of performance** typically focuses on the "technical" portion of the proposal. Here the bidder specifies the details of the product and how they propose to produce it. In the case of simple, off-the-shelf products, procurement personnel can compare a bidder's technical proposal against commercial specifications. In the case of complex products, where there is ambiguity about the product's requirements and how to produce it, procurement personnel may expand the evaluation to include other actors in the review, like the program staff that will ultimately use the product (e.g., the sailors that will pilot the boat) and third-party evaluators with specialized product expertise (e.g., the American Bureau of Shipping).

In an LPTA review, the evaluation first examines whether proposals meet the technical specifications. The winner is the bidder offering the lowest price.

In a tradeoff process review, the evaluation provides weights to the different criteria (e.g., 40 points for cost, 20 points for delivery, and 40 points for performance). Evaluators rate each proposal on the criteria, and the winner is selected based on the highest point total.

Draft Contract. The next step of the award phase is to draft the actual contract to govern the exchange. The basic process is for the agency's contract officer, or his or her designate, to select clauses from the FAR or relevant supplement based on the purpose of the contract (namely what's being purchased), the type of vendor (e.g., nonprofit, private firm, university), and the method of financing.

In most cases, core contract clauses have been determined at the pre-award phase and are incorporated into the RFP. Suppliers know the contours and most of the details of the contract when they put in a bid. Typical contract details subject to negotiation include details of the technical requirements of the product (e.g., the type of material used to build the boat), allowable costs under different payment methods (e.g., the hourly rate of a welder), and proprietary ownership of the product's design (e.g., the engineering plan for the boat).

Once negotiation is over and a final contract is agreed upon, the award phase comes to a close and the execution of the contract—the post-award phase—commences.

Acquisition Challenges Agency Leadership Must Overcome

Challenge One: Navigating the Regulatory and Oversight Landscape

The rules governing procurement are both a help and a hindrance. The FAR and its supplements help guide procurement personnel to acquisition approaches and techniques that increase the chances of securing best value, and provide discretion to procurement personnel to respond to the shifting dynamics of the markets for the products they purchase. One current senior procurement official offers: "Looking at the FAR as a whole and all its component parts, there's always a way to get the product you want." In this view, the FAR is a recipe book to be consulted rather than a rulebook to be strictly followed. But the rules also hinder the pursuit of best value by constraining the free flow of product purchases by agencies and slowing the process down. According to one former senior procurement official:

> Much of the interest and concern of senior management had to do with why it took so long to buy the critical products and services needed to help fulfill the agency mission. My answers generally ran along the lines of the challenging regulatory environment we had to navigate through to make the buys…

Another agrees: "Federal executives, who come in from the private sector, are often shocked about the limits on their decision-making ability as compared to private-sector employment."

Many procurement personnel interviewed for this report find the FAR and the overarching regulatory system overly complex. For example, one procurement official states,

> The FAR is way too complicated and requires far too many steps in order for someone to be fully compliant in purchasing goods, services, and solutions. Effort needs to be taken to rewrite the FAR in how to buy services and [it] ultimately needs to be less complicated.

Many interviewees agree that the proliferation in the use of supplements to the basic FAR means that suppliers face a variable compliance burden in selling the same product to different agencies. According to one interviewee,

> Every agency thinks they can write lots and lots of supplements. If you're doing business with the government you have to tailor your solicitation to each different agency because they each have different requirements. This drives up the cost of doing business with government.

One of the biggest constraints the current set of rules places on contracting is the fear of oversight by the array of actors described earlier. Many procurement professionals are wary of triggering the oversight that typically follows a failed contract, particularly one that is perceived to run afoul of the tangle of regulatory rules. Many procurement decisions involve judgment calls. When weighing the merits of opting out of the competition procedure to expedite a purchase,

for example, a procurement official may be loath to do so if an oversight body like the GAO has recently audited the agency's competitive tendering practices. Procurement professionals are trained to weigh these risks against the upside of moving quickly to acquire a better or cheaper product. For many, though, experience counsels being cautious, in large part because federal procurement personnel are legally liable for their procurement decisions. This aversion to risk dampens efforts to be entrepreneurial.

Strategies for Overcoming this Challenge

- **Streamline acquisition processes and procedures.** The regulations governing acquisition in one agency can be cumbersome for vendors who seek to offer their products to multiple agencies. Burdensome administrative requirements sometimes direct vendors away from producing a product that contributes directly to the agency's mission and instead focus the vendor on administrative compliance. The administrative burden and variability in procurement regulations and practices across different purchasing agencies constrain market competitiveness. Some firms that would like to do business with the federal government simply won't. The result is fewer suppliers of needed products. An agency leader can't change the core requirements of the FAR, but can reduce the degree to which the agency's practices and processes diverge from the basic FAR guidance and minimize agency-specific administrative compliance requirements. Periodically, agency leadership should review the agency's acquisition policies and practices to assess whether they pose an undue burden for suppliers, and compare the agency's policies and practices with those of other agencies to assess whether there are simpler ways to acquire the products the agency needs.

- **Make it easy to buy simple products.** It's always a good idea to get to know the balance of simple and complex products an agency relies on to achieve its mission. As discussed in more detail in the next section, simple products should be easy to buy, while acquiring complex products requires more staff time and focus. Look to make agency acquisition practices straightforward for purchases of simple products. For example, the General Services Administration (GSA) has created standard contracts for commercial products—think simple products like office supplies and fleet vehicles. The GSA compiles a list of off-the-shelf commercial products and negotiates the contract with suppliers. These prearranged contracts are called schedules. Agency procurement personnel looking for simple products can go directly to the GSA schedule and forgo running their own procurement. Suppliers benefit by being able to offer their products to multiple agencies while only complying with one set of regulations.[23] By encouraging the use of GSA schedules for simple products, time is freed up for procurement personnel to concentrate on the challenges of buying whatever complex products the agency needs. Research highlights the importance of managing the relationship with the vendor in transactions for complex products, since these acquisitions often extend over long periods of time.[24] Furthermore, these complex products typically fall in the "tail" of agency spending, either outside the traditional supply market for the agency or for a product it does not regularly buy. As David Wyld documents in a recent IBM report, managing the acquisition tail can lead to greater returns than over-managing the bulk of agency contract expenditures.[25]

- **Manage the oversight environment.** No agency leader likes to be called up to Capitol Hill for an oversight hearing or to see their agency smeared in the press. Failed contracts are fodder for both. The best way to minimize the risk of a contract leading to a public relations disaster or an oversight hearing is to take steps to make the agency's acquisition

23. To learn more about GSA Schedules check out the GSA's Schedule website: http://www.gsa.gov/portal/category/100615 (accessed April 2, 2013).

24. See, for example, Trevor Brown, Matthew Potoski, and David Van Slyke. 2008. *The Challenge of Contracting for Large Complex Projects: A Case Study of the Coast Guard's Deepwater Program* (Washington D.C.: IBM Center for The Business of Government).

25. See David C. Wyld. 2013. *Improving Government Acquisition by Managing the Long Tail.* IBM Center for The Business of Government.

process run smoothly. Freeing up procurement personnel to focus on managing the risks of contracting for complex products is one way to do this. Still, even with significant investments in contract management capacity (see Challenge Three) some contracts will go wrong at some point. To prepare for the inevitable contract failure, develop situational awareness about which acquisitions pose the greatest risks. To start, whatever complex products the agency acquires pose the greatest risk of outcomes that trigger aggressive oversight. Managing the oversight environment is best done before the fact rather than after: educate overseers about the realities of those risks before and during the acquisition, along with the steps that procurement personnel are taking to mitigate them.

Challenge Two: Mitigating Acquisition Risks through Contract Design

The risk of a failed contract—a product that is inadequate, over budget, or delivered late—is in large part driven by the type of product to be purchased—simple or complex. When buying a simple product, the risks of a failed contract are low: the buyer can describe what they want, and the seller can determine how much and how long it will take to make the product to specifications. If for some reason the vendor fails to meet expectations, the purchasing agency can relatively easily switch to another vendor. The risks of an unsuccessful outcome increase for complex products: the buyer is unable to detail what the product looks like and what he wants it to do, and the seller struggles to determine what is required to produce the product and how long it will take. Because specialized investments, like research and development, are required to produce the product, if the supplier fails to meet expectations, the buyer will have a hard time finding a replacement. A primary way to mitigate these risks is through the design of the contract, what gets written down to govern the exchange.

When procurement personnel craft a solicitation and a contract they face a variety of choices about what clauses to include. The FAR mandates some clauses (e.g., suppliers must provide a drug-free workplace), but allows for discretion on other clauses (e.g., whether to define the product requirements around inputs and activities, outputs or outcomes). One pivotal choice procurement personnel face is determining how the purchasing agency will pay whatever supplier is chosen. The FAR focuses on two basic methods of payment: fixed-price contracts, which set compensation on what the seller produces, and cost-reimbursement contracts, which set compensation on inputs the seller uses to make the product, such as time and materials. Fixed-price contracts identify a "final" cost for a product at the time the contract is written; for example, in a contract for garbage collection, a fixed-price contract would specify a firm price the buyer would pay a seller each contract period, say each month, to provide garbage collection services. Cost-reimbursement contracts identify allowable costs in the contract but not an actual cost for the product. The final cost is calculated after the product is delivered. In the case of garbage collection, the contract might specify that fuel, insurance, wages, and truck maintenance are all allowable costs. Since these costs are variable—the cost of fuel will go up and down each month—the seller will charge a different amount each month to the purchaser.

Fixed-Price versus Cost-Reimbursement Methods of Payment

Fixed-price contracts set compensation on what the seller produces.

Cost-reimbursement contracts set compensation on inputs the seller uses to make the product, such as time and materials.

The payment method decision can have an important impact on the exchange's outcome because compensation terms determine who bears the risks of the product's final costs.[26] Fixed-price contracts place the risk on the seller, since production costs may end up being higher than the price agreed upon in the contract. Fixed-price contracts incentivize the seller to determine the characteristics and capabilities of the product before signing off on the contract, since this information will drive the costs of production. Cost-reimbursement contracts place the risk on the buyer because the buyer ends up paying the difference if production costs end up higher than forecasted. Here the buyer faces the incentive to be as specific as possible about the product's characteristics and capabilities since this information will drive the price they ultimately pay. Without this specificity, the seller can "gold plate" the exchange by adding expensive features to the product that the buyer does not need.

The Hybrid: Time-and-Materials (T&M) Contracts

Time-and-materials contracts (T&M) borrow elements from cost reimbursement and fixed-price contracts. T&M contracts specify fixed costs for labor hours and materials, but do not fix precisely how much of the supply or service will be purchased, other than when a ceiling is set for the total cost. The final cost to the agency is based on how much of a supply or service is acquired. The FAR allows T&M contracts when the agency cannot specify at the outset the exact extent or duration of work to meet its needs.

Contracts can include any number of variations on the basic fixed-price versus cost-reimbursement choice. Cost-reimbursement contracts, for example, come in a variety of different flavors like labor hours, where payment is determined by the number of hours worked by the supplier, and time and materials, where payment is set on the number of hours worked and the cost of materials to perform the work. Contract designers can also incorporate incentives—payments to the supplier based on achieving specified performance goals—into either payment method. While these variations and additions can impact the likelihood of a successful acquisition, they don't change the underlying payment method.[27]

In practice, fixed-price payment methods are used more often than cost-reimbursement payment methods. As Figure 6 shows, over the last decade, around 60% of all federal contracts use a fixed-price payment method that places the risk of cost overruns on the supplier rather than the government. That means that 40% of contracts rely on a cost-reimbursement payment method where the purchasing agency bears the risk of cost overruns. This relatively high percentage of cost-reimbursement contracts spurred the Obama administration in 2009 to direct agencies to increase their use of fixed-price contracts.

Given that the risk of cost overruns and failed contracts is grounded in the types of products an agency buys and how it buys them, there are steps that procurement personnel can take to mitigate the risks.

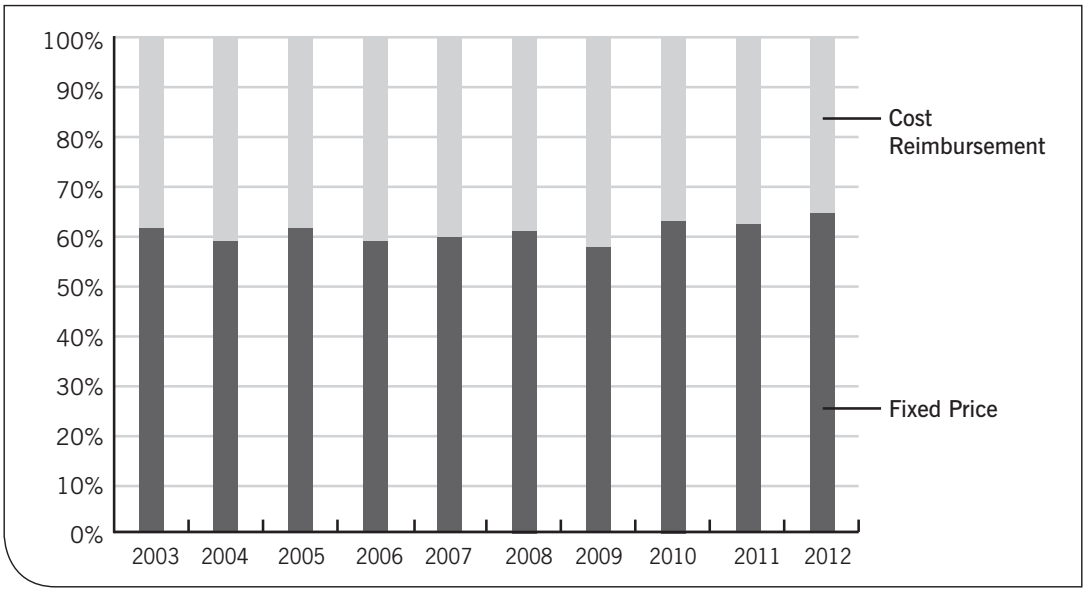
Strategies for Overcoming this Challenge

- **Align the payment method to the product's characteristics.** Simple products that are easy to specify and easy to produce lend themselves to fixed-price contracts. Under these conditions, vendors are willing to shoulder the risk of cost overruns because they have sufficient certainty about what exactly they have to make, how to make it, and how much it

26. See for example: Patrick Bajari and Steven Tadelis. 2001. "Incentive versus Transaction Costs: a Theory of Procurement Contracts." *Rand Journal of Economic*s 32(3): 387–407.

27. See, for example, GAO. 2009. *Contract Management: Minimal Compliance with New Safeguards for Time-and-Materials Contracts for Commercial Services and Safeguards Have Not Been Applied to GSA Schedules Program.* GAO-09-579.

Figure 6: Fixed Price versus Cost Reimbursement Contracts—Fiscal Years 2003–2012



will cost. Complex products that are difficult to specify and difficult to produce don't lend themselves to fixed-price payment methods. Suppliers are unlikely to commit to an arrangement in which they bear the burden of cost overruns if they don't know exactly what they have to make, what steps and activities are required to make it, and how much the product will cost to manufacture. In these cases, the only way they are likely to commit to the exchange is if the purchasing government is willing to shoulder the risk of cost overruns.

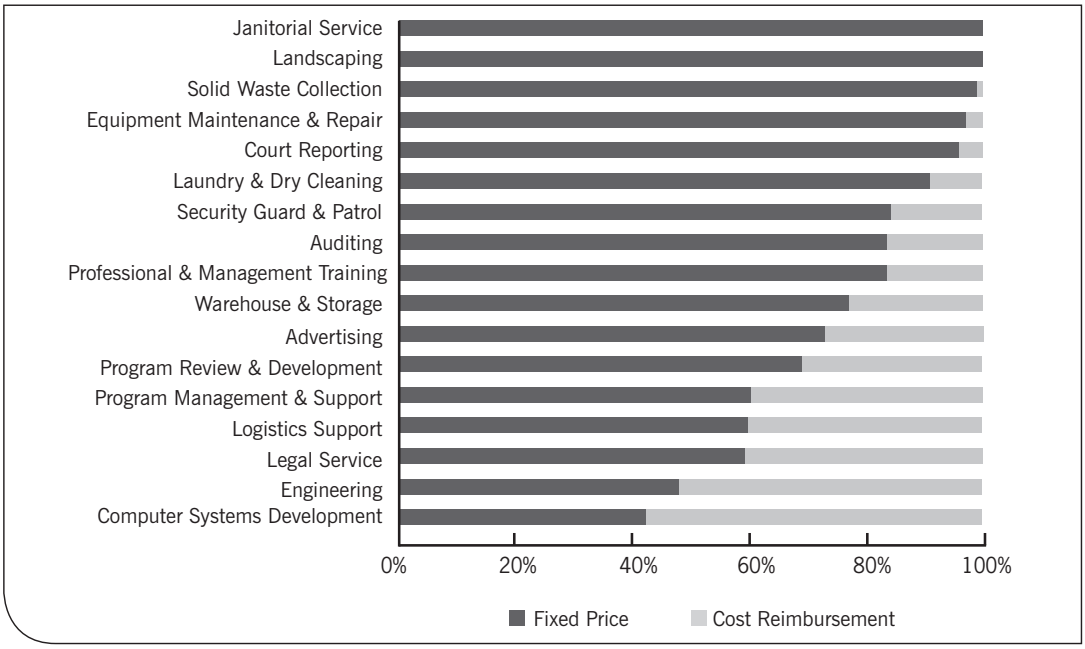
Figure 7 reports the use of fixed-price versus cost-reimbursement contracts for 17 different products by three federal agencies—the Departments of Defense, Homeland Security, and Health and Human Services.[28] These agencies are significant purchasers and routinely purchase these 17 different services. The pattern in the use of the two different payment methods is fairly straightforward. Each of these three agencies relies almost exclusively on fixed-price contracts for simple products, like janitorial services and solid waste collection. As products become more complex—that is, more difficult to describe and make—agencies increase their use of cost-reimbursement contracts. When products are highly complex, as with engineering and computer systems development, these three agencies rely heavily on cost-reimbursement contracts.

The key for procurement professionals is to match the payment method (and other contract design elements) to the characteristics of the product. For example, good contracting practice counsels using cost-reimbursement contracts for the acquisition of a product that requires substantial research and development, but once the product's requirements are defined, procurement personnel should switch to fixed-price contracts to buy the product in volume.

- **Provide procurement personnel discretion in contract design.** All things being equal, the FAR's guidance to government agencies is that fixed-price contracts are preferable to cost-reimbursement contracts because they incur lower risks of cost overruns for the government agency. At the same time, one size does not fit all circumstances. The FAR allows for cost-reimbursement contracts when it is unlikely that a vendor would enter into an

28. The data for this figure come from the Federal Procurement Data System. See the Appendix for a more complete description.

Figure 7: Fixed Price versus Cost Reimbursement: Departments of Defense, Homeland Security, and Health & Human Services—Fiscal Years 2004–2008



exchange under a fixed-price contract. For example, if there is considerable uncertainty about a key cost element in the production process, such as fuel, cost-reimbursement contracts are allowable. Most of the FAR's guidance is in line with the basic tenets of good public-sector contracting practice.[29] The use of contracts that place the cost risk on vendors is preferred, but contract scholars and analysts acknowledge that procurement personnel should have some discretion to decide how best to design contracts in response to extant conditions.[30]

The Obama administration's 2009 guidance to reduce cost-reimbursement contracts notwithstanding, resist the temptation to mandate particular contract design elements for all the products the agency purchases. Instead, trust procurement personnel as trained professionals to make contract design decisions. The agency leader needs to be aware of the risks of major procurements in the agency—notably any complex product purchases—but mandating a specific contract design element, like payment method, may actually increase the likelihood of a failed outcome.

In short, to reduce the risk of relying on cost-reimbursement contracts, the best first step is to stop buying complex products. If the agency needs complex products to fulfill its mission, work to professionalize procurement personnel and invest in contract management capacity.

Challenge Three: Improving the Acquisition Workforce

Government agencies employ a variety of different types of people to conduct acquisitions and procurements. Some procurement professionals perform highly specialized tasks, like evaluating the performance requirements of a specific product, while others perform more general tasks

29. See, for example, Elliot Sclar. 2000. *You Don't Always Get What You Pay For: The Economics of Privatization.* Ithaca, NY: Cornell University Press.

30. See, for example, Steve Kelman. 2009. Achieving Contracting Goals and Recognizing Public Law Concerns: A Contracting Management Perspective. In J. Freeman and M. Minow (eds), *Government by Contract* (pp. 153–191). Cambridge, MA: Harvard University Press.

like coordinating the acquisition and procurement process. Generally speaking, procurement professionals fall into two job classifications: Office of Personnel Management's GS-1102 "Contracting" and GS-1105 "Purchasing" series.

Within these two job classification series are three primary categories of acquisition positions:

- Administrators or coordinators
- Specialists
- Buyers

At the top of the procurement workforce are **administrators** or **coordinators** (sometimes referred to as the contracting officers). While specialists sometimes perform managerial functions, they typically do so under an administrator or coordinator whose primary responsibility is the management of an agency's acquisition processes and personnel. A contract/procurement administrator or coordinator is ultimately responsible for ensuring that an agency has the desired levels of various products the agency needs to perform its functions in pursuit of its mission. The administrator or coordinator is often the official who signs contracts on behalf of the agency or delegates his or her signature authority to a contract officer technical representative (COTR). The administrator or coordinator is also responsible for establishing the procurement policies and processes within the agency and making sure they comport with relevant federal procurement regulations (e.g., the FAR).

A level below administrators/coordinators is the broad category of **specialists** (sometimes referred to as price/cost/procurement/contract analysts, contract financial analysts, pricing managers, or contract/procurement specialists). Specialists' duties can range from conducting more specialized technical tasks (e.g., gathering and analyzing market data) to more general procurement functions (e.g., overseeing a team of buyers). Job descriptions for specialists can include a broad array of tasks, such as:

- Negotiating with suppliers
- Formulating and coordinating solicitations
- Analyzing and assessing proposals
- Evaluating and monitoring supplier performance
- Granting deviations from contract terms
- Terminating and renegotiating contracts

Buyers (sometimes referred to as purchasers) are the front line in procurement. These staff members scan the market for the products a government agency needs and typically take care of the basic steps of running an acquisition. If an agency relies heavily on a steady stream of simple products (e.g., office supplies), a buyer may be responsible for all stages of an acquisition (e.g., specifying the product's requirements, putting out a solicitation, evaluating proposals, selecting a vendor, and setting the terms of exchange).

Procurement-dependent agencies typically employ procurement personnel at all three levels. Some agencies that make numerous purchases, including many units within the Department of Defense, have established career tracks for procurement professionals to advance in the procurement food chain as well as in the agency's managerial and leadership ranks. Agencies that purchase less may rely on fewer and less specialized procurement staff, perhaps a handful of buyers and a contract specialist with managerial responsibilities.

As the volume of federal contracting increases, so does the demand for procurement professionals. Given the wide array of OPM-classified positions that fall under the procurement umbrella, it's difficult to come up with an accurate count of how many procurement professionals are employed by the federal government. Based on its best estimate, in 2007 the Acquisition Advisory Panel to the Office of Federal Procurement Policy put out a report sounding the alarm on the growing gap between the increasing procurement demands of federal agencies and the need for a larger and better training cadre of procurement professionals.[31] The Acquisition Advisory Panel is not alone; organizations within the government (e.g., the Federal Acquisition Institute) and those representing the interests of suppliers that do business with the government (e.g., the Professional Services Council) have taken up the call to increase the number and upgrade the training of government procurement professionals.[32]

Strategies for Overcoming this Challenge

- **Invest in procurement personnel.** Many procurement professionals didn't target the job but instead wound up there because other career paths closed or other jobs didn't work out. It's a rare person that grows up saying, "I want to buy copy paper and spy satellites for the federal government." That doesn't mean, however, that the procurement personnel are not professionals. On the contrary, all of the senior procurement officials interviewed for this report highlight how seriously they and their employees take their jobs. They may not have dreamed as children of being buyers or supply chain managers, but they are driven to ensure that when a soldier is sent to war or a Coast Guard sailor puts to sea he or she has the best-quality products—weapons, armor, communications equipment, boats—to do their jobs. Too often, agency leaders look on procurement personnel as back-office backbenchers who lack the skills or the ambition to seek out prime career paths like finance or program management. As agencies become more reliant on acquisition for mission success, the strategic move is to recruit the best quality procurement professionals available and invest in their training and growth.

  There are a variety of educational institutions within the federal government tasked with meeting this charge, notably the Federal Acquisition Institute and the Defense Acquisition University, both of which offer world-class training and certification for federal employees in the procurement arena. Professional associations like the National Contract Management Association (NCMA) and the National Institute for Governmental Purchasing (NIGP), along with private and public colleges and universities, also offer courses and training programs in procurement, purchasing, logistics, and supply chain management. Spending resources for procurement personnel to continually upgrade their skills is an investment that will pay dividends of higher quality, affordable products that contribute to agency success, and fewer oversight hearings.

- **Integrate procurement personnel into basic agency operations.** Well-functioning procurement operations tend not to silo the function, but instead integrate procurement activities with other core functions of the agency, like program operations, strategic planning, and finance. Specifically, agencies that effectively manage acquisition do so in part by integrating procurement and program management personnel into cross-functional teams. At the front end of the procurement process, buyers might work closely with the users of the product within the agency to define the product's requirements. When bids are solicited, proposals evaluated, and the contract negotiated, a contract specialist might work with

31. *Report of the Acquisition Advisory Panel to the Office of Federal Procurement Policy and the United States Congress,* January 2007. (https://acquisition.gov/comp/aap/24102_GSA.pdf) (accessed 12/15/2012).

32. See, for example, *FY2010 Annual Report on the Federal Acquisition Workforce* from the Federal Acquisition Institute (http://www.fai.gov/pdfs/FAI_2010_Annual_Report_12_21_11_FINAL.pdf) (accessed 12/15/2012) and "The Balancing Act: Acquisition in an Unabated Crisis," from the Professional Services Council. (http://www.pscouncil.org/i/p/Procurement_Policy_Survey/c/p/ProcurementPolicySurvey/Procurement_Policy_S.aspx) (accessed 12/15/2012).

the agency's legal staff to craft contract terms. After the contract is underway, a contract specialist or coordinator might collaborate with project management staff to assess how well a product delivered by a supplier meets the requirements of the product's users.

- **Minimize reliance on contracted contract management capacity.** Procurement personnel supply has not kept up with demand. As a result, many agencies have turned to private firms to provide acquisition support services, essentially buying the capacity to buy other materials. In an era of budget constraints and caps on full-time hires, turning to the market for contract management has advantages. Agencies are able to gain needed acquisition support without entering into long-term employment commitments. Contracting for this support is the most advantageous during times when procurement is ramping up or when the expectation for the need is short-term. However, buying contract management capacity incurs its own risks—the product here is complex—and is best used as a short-term "surge" tactic, rather than a long-term strategy. The report by the Acquisition Advisory Panel highlights this growing reliance on contractors to provide contract management capacity as a risk for agencies that rely heavily on procurement. This concern is also a recurring lament of the GAO and hence a primary oversight target. While there are instances where contracted support can be helpful, making rather than buying contract management capacity is the wiser long-term course of action.

Appendix

Project Methodology

This report is based on a variety of sources:

- Aggregate summary data on acquisition across the federal government from USASpending.gov
- Primary data on contract actions by federal government agencies, extracted from the Federal Procurement Data System
- Interviews with seven federal acquisition staff members
- Original regulatory documents governing federal procurement
- Extant analyses conducted by oversight bodies like the GAO and industry groups like the Professional Services Council

The data used in Figure 7 come from the Federal Procurement Data System (FPDS). The FPDS catalogs all contract actions reported by 66 federal agencies. The data for this figure were drawn from a stratified random sample from the FPDS of contracts for 17 product types in three agencies—the Departments of Defense, Homeland Security, and Health and Human Services—from FY 2004 to FY 2008. These data formed the basis of a larger research project that examines changes to each of these contracts over a three-year period, so the actual time span for the analysis is FY 2004 through FY 2011. To learn more about the details of these data and how they have been organized, contact the author.

Semi-structured interviews were conducted with seven current and former senior procurement staff across a variety of federal agencies. All of those interviewed had served in a variety of acquisition positions in different agencies. Each interview followed the same semi-structured protocol, was recorded by hand, and then coded and scanned for key terms. Each interviewee was promised anonymity under the Institutional Review Board requirements of the Ohio State University.

About the Author

Trevor L. Brown is an Associate Professor and the Interim Director at the John Glenn School of Public Affairs at the Ohio State University. He teaches courses on public management, public sector strategy, and organizational theory.

Over the past 20 years, Dr. Brown has served in a management role for a contractor of the U.S. federal government, in a cooperative agreement between Indiana University and the U.S. Agency for International Development. In addition, he has testified before the House Committee on Small Business about the contracting practices of the Small Business Administration.

Dr. Brown's research examines why governments elect to make some products internally, while contracting for others. His research has examined how governments design contracts to govern the exchange, and the investments governments make in contract management capacity to deliver the desired outcomes. This research has been published in such journals as the *Public Administration Review*, the *Journal of Public Administration Research and Theory*, and the *Journal of Policy Analysis and Management*. In collaboration with Matthew Potoski and David Van Slyke, Dr. Brown is the author of the Cambridge University Press book *Complex Contracting: Government Purchasing in the Wake of the US Coast Guard's Deepwater Program*.

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