TESTIMONY

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Federal Agencies Can Adapt Best Commercial Practice to Improve Their Acquisition of Services

FRANK CAMM

CT-261

April 2006

Testimony presented to the Acquisition Advisory Panel on April 21, 2006

RAND CORPORATION

Published 2006 by the RAND Corporation
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Frank Camm[1]
The RAND Corporation

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Before the Acquisition Advisory Panel

April 21, 2006

Preface

Chart 1

The Acquisition Advisory Panel was chartered in October 2004 to "provide independent advice and recommendations to the Office of Management and Budget (OMB) to comply with Section 1423 of the National Defense Authorization Act for Fiscal Year 2004." The panel is reviewing federal laws, regulations, and policies relevant to "the use of commercial practices, performance-based contracting, performance of acquisition functions along agency lines of responsibility, and

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government-wide contracts." The panel is seeking ways to "protect the best interests of the Government, ensure financial and ethical integrity of Federal acquisitions; and promote the effective, efficient and fair award and administration of Federal contracts."[2]

The panel invited RAND to present information on these topics based on RAND analysis of federal services acquisition conducted over the last 15 years. This briefing documents a presentation given to the panel on 21 April 2006.[3]

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[2] "Charter, Acquisition Advisory Panel," Available at http://acquisition.gov/comp/aap/documents/aap_charter.pdf on 11 April 2006.

[3] John Ausink, Laura Baldwin, Cynthia Cook, Natalie Crawford, Carl Dahlman, Bruce Held, Nancy Moore, and Bob Roll reviewed an earlier version of this briefing and offered valuable input. I retain full responsibility for the accuracy and objectivity of its content.

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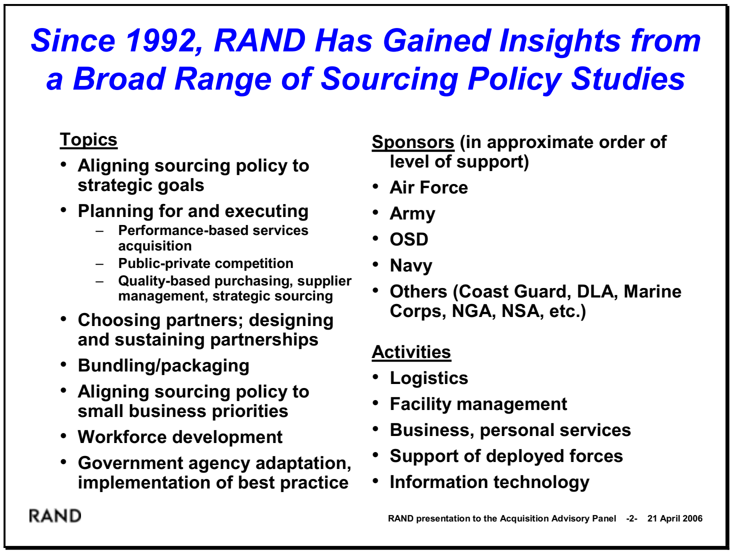
1. Introduction

Chart 2



The material in this briefing draws on the work of many analysts at RAND over the last 15 years. Appendix A lists relevant publications.

RAND has worked on a wide range of sourcing topics, shown on the left-hand side of the chart, of interest to our sponsors, shown in the upper right. Sponsors are mostly from the Department of Defense (DoD). Topics have typically involved the application of new sourcing concepts in make-or-buy decisions; the segmentation of the supply base; the design of source selections, contracts, and contractual relationships; and the management of services acquisition activities within the government.

RAND has examined services acquisition in a wide variety of settings. Some are quite simple. Technology and combat-related hazards and uncertainties can make others quite complex.

Chart 3

We Highlight the Following Topics to Promote a Useful Discussion Today

- **Adapting best commercial practice (BCP)**
- **What best commercial practice is**
- **Metrics, benchmarking, and governance**
- **Education, training, and personnel management**
- **FAR Part 12 and real commercial practice**

RAND

RAND presentation to the Acquisition Advisory Panel -3- April 2006

We can only discuss a small portion of this work in today's presentation. The charts that follow contain a lot of material, and I will be happy to address any of it in the time available. I hope to work through the material in these charts in a way that develops a simple line of argument, as follows.

We start by explaining why RAND has given so much attention to *adapting* best *commercial* services acquisition practices for application in a federal setting.

We explain how the quality-based management system that began to spread through American commercial firms in the 1980s continues to generate "best commercial practices" and how a broad quality-based approach affects services acquisition. We list specific commercial practices that have emerged from this approach and comment on government acceptance of them to date.

We explain the role of metrics in quality-based management and how they affect relationships between buyers and sellers. We explain how they support benchmarking activities that allow organizations to scan the horizon for improvement opportunities. We then ask how the availability of relevant metrics and benchmarking affect the cost-effectiveness of using formal competition to choose and motivate providers of services.

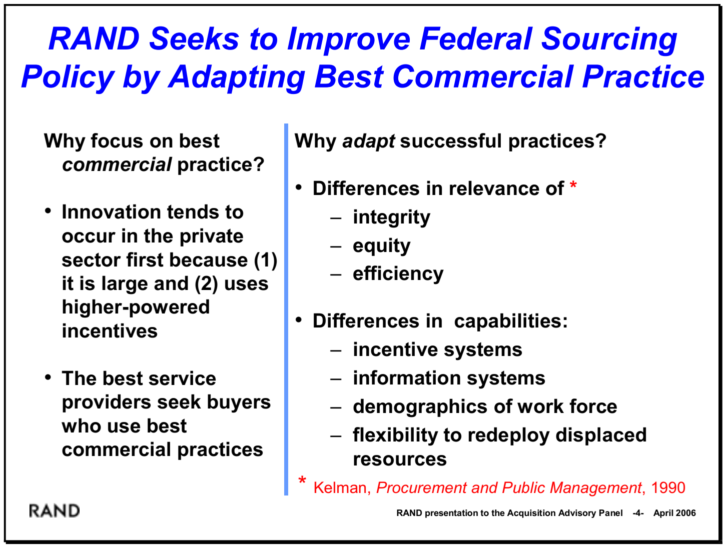
We explain how best commercial best practices are increasing the discretion available to lower-level personnel in an organization and the rigor of analysis they must execute, thereby fundamentally changing the skills relevant to these personnel. We explain that broad personnel management and specific training initiatives can help an organization prepare its employees for this new environment.

Finally, we apply insights from best commercial practice to Federal Acquisition Regulation (FAR) Part 12 to ask some basic questions. Does it in fact align organizational priorities in the way that best commercial service acquisition practices do? Are federal personnel well prepared to apply Part 12 in ways that improve such alignment? It suggests a simple test that might be used to ask whether specific changes in FAR Part 12 are appropriate or not.

The briefing wraps up with a short recap of major points.

2. Adapting Best Commercial Practice

Chart 4



RAND has given a lot of attention to identifying "best commercial practices" and "adapting" them to the federal government environment. "Best commercial practices" are things that commercial firms do that their peers identify as "best in class" and try to emulate. As we will explain in a moment, these practices share a few key attributes, but they constantly evolve at the detailed level relevant to implementation. Successful implementation lies in a continuing ability to master these details.

Why focus on best *commercial* practice? Why not look at practices in government agencies in the federal, state, and local spheres within this country, and in other countries experimenting with new approaches to services acquisition? We have looked there as well, but we consistently find the richest trove of new ideas in commercial practice. We think this is because the commercial sector is so much bigger than the government sector, in the U.S. and elsewhere, especially when we look at actual production of real services, not transfers of income. And competition and compensation systems in the commercial sector typically promote innovation more aggressively in the commercial sector than in the government, especially for services consumed in both sectors. New services and methods of delivering them are more likely to emerge in the commercial sector and to migrate to the government sector than the other way around. So we look where we expect to find the best new ideas.

But wouldn't it be better to look at services acquisition practices already in place in government agencies? If new acquisition ideas work in one agency, isn't it likely that they will be easier to transfer to another government agency than a new idea that emerges in a commercial setting? That is quite likely. We can use the ideas we find in commercial settings only if we are prepared to work hard to "adapt" them to a government setting. What does that mean?[4]

First, it means recognizing that commercial and government organizations value different things. We have found it useful, with Steven Kelman, to look at how any new services acquisition practice is likely to affect the *integrity* of the services acquisition process, the *equity* of outcomes from that process, and the *efficiency* or cost-effectiveness of the services that a buyer acquires.[5] Federal agencies think about each of these factors in qualitatively different ways than most commercial organizations do. And federal agencies place different relative priorities on these three factors than commercial organizations do. So the first step in assessing the value of a "best commercial practice" is to ask if it is likely to promote goals that the federal government values as much as its commercial advocates do. The second step is to ask how it might be adjusted to give greater attention to the things that a federal buyer values than to the things that commercial buyers value.

Second, it means recognizing that government agencies typically use lower-powered incentives and allow less individual discretion than commercial firms do. The ability to dramatically expand employment when process improvement increases demand for outputs is much more likely to occur in a commercial setting than in a government setting. Some best commercial practices assume the existence of information systems that government agencies have not yet put in place. Personnel management practices in commercial organizations tend to be more fluid than those in government agencies, especially in the absence of private-sector unions. And commercial methods of defining jobs and career paths have been changing more rapidly in many commercial firms than in the government. Finally, when process improvement reduces the number of inputs required to meet a given level of demand for outputs, government agencies are much more reluctant to dispose of "redundant" personnel and physical assets than commercial firms are—again, especially in the absence of private-sector unions. Many "best commercial practices" promote the goals of commercial firms because their incentive systems, information systems, labor forces, and degree of control over inputs that they use allow these practices to yield valuable outcomes. The first step in looking at the management environment in which a commercial practice occurs is to ask how that environment compares with a government environment and to ask how important differences are to the likely usefulness of such a practice

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[4] For more detail, see Frank Camm, "Adapting Best Commercial Practices To Defense," in Stuart E. Johnson *et al., New Challenges, New Tools for Defense Decisionmaking*, MR-1576-RC, RAND, Santa Monica, 2003.

[5] Kelman argues that all of the policies and practices prescribed in the Federal Acquisition Regulation (FAR) exist to promote goals relevant to one of these three factors. Steven Kelman, *Procurement and Public Management: The Fear of Discretion and the Quality of Government Performance*, American Enterprise Institute, Washington, 1990.

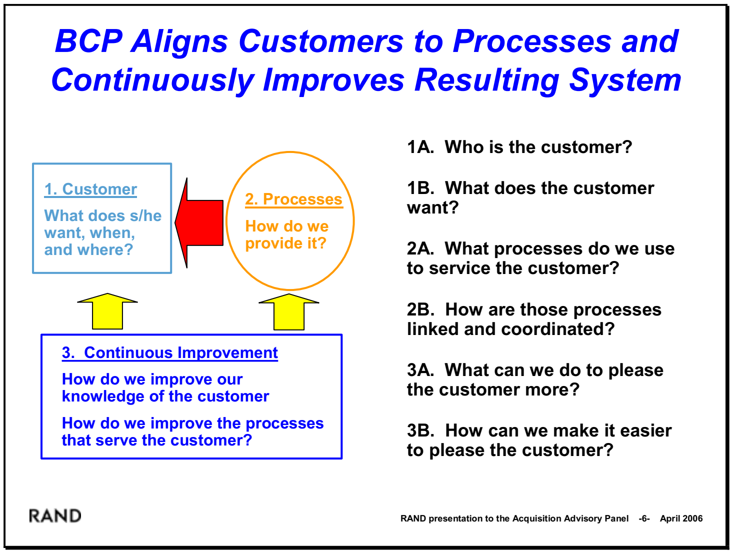
in a government setting. The second step is to ask how specific changes in the practice would allow it to yield greater value—in terms of integrity, equity, and efficiency—in a government management environment.

We also value best commercial practices for another reason. We have found repeatedly that the "best" commercial service providers tend to shop for buyers as aggressively as buyers shop for providers. Why? Service providers make a living by adding value for buyers. The better a buyer is at acquiring services, the more value the provider can add, and the larger pot that the buyer and provider can split. That is, the best commercial providers perform best economically when they work with buyers who know how to work with them to generate the most value. Many commercial service providers actively avoid working for the federal government for precisely this reason. The federal government is more likely to attract the interest of the best commercial service providers if it can show them that it can create an acquisition environment in which they can perform well. Adapting best commercial practices gives the government a way to signal its "quality" as a buyer; if done properly, it also improves the federal government's ability to use high-quality providers effectively and thereby become a high-quality buyer they want to deal with.

3. What Best Commercial Practice Is

Chart 5

Chart 6



A new management paradigm entered American industry in the 1980s and has since bred many closely related variations, including total quality management, the theory of constraints, lean production, Six Sigma, and most recently, Lean Six Sigma. These variations all share three simple factors in common.[6]

First, they all start with some customer to be served. They ask who that customer is and what the customer wants. Speaking very broadly, a customer cares about service quality and cost and chooses a mix of quality characteristics that is compatible with the customer's cost of consuming a service with that mix of characteristics.

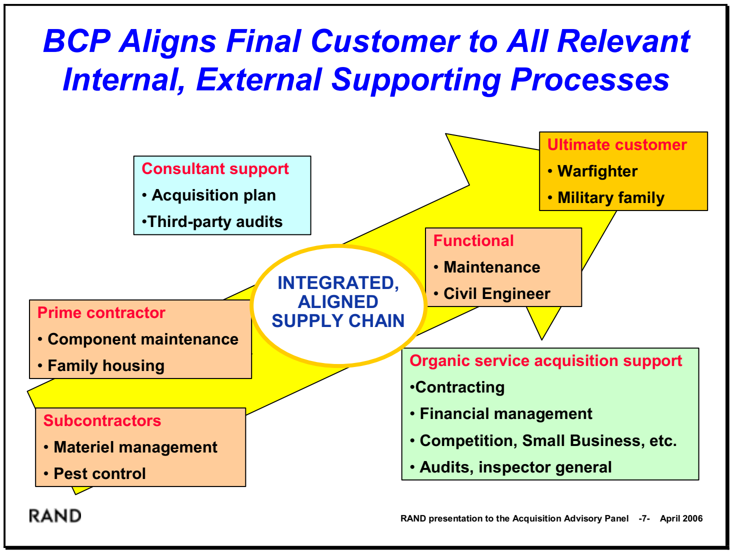
Second, they ask what processes provide the service that customer wants. Who owns and controls those processes, how are they related to one another, and what arrangements exist to coordinate them in ways that align their operation with the priorities of the customer? Taken together, these processes comprise an end-to-end process or supply chain. How does this end-to-end supply chain coordinate its component elements to serve the customer? How do practices operate in each element of this end-to-end setting to serve the final customer?

Third, they ask how to improve an understanding of what the customer really wants and how to improve processes and practices and their alignment with one another in ways that give the customer more of what the customer wants over time.

[6] For a succinct discussion of this perspective, see Arnold Levine, Jeff Luck, *The New Management Paradigm: A Review of Principles and Practices*, MR-458-AF, RAND, Santa Monica, CA, 1994.

Almost every “best commercial practice” identified for potential adaptation in the federal government has an associated customer and either improves our understanding of what that customer wants or improves the end-to-end process that serves that customer’s needs. “Best commercial practices” relevant to services acquisition do this when a customer’s organization seeks to acquire services from another organization that improves service to that customer.

Chart 7



The chart provides a stylized version of two supply chains relevant to the Air Force.[7] The first supply chain provides aircraft component maintenance services to a warfighter. One important input to component maintenance is materiel management. So a single, unified supply chain flows from materiel management through component maintenance to the warfighter. The goal of the supply chain should be to align all these activities to ensure that they serve the needs of the warfighter, not the parochial interests of the maintenance function that manages the details for the warfighter, of the actual providers of services, or of some other priority of less importance.[8] The second supply chain provides family housing to a military family. One important input to family housing is pest control. So a single, unified supply chain flows from pest control through family housing to the military family. The goal is to align all these activities to ensure that they serve the needs of the military family, not the parochial interests of the civil engineer that manages the details for the military family or of the providers themselves.

The chart depicts these supply chains in a setting where the responsible Air Force functional is a buyer, not a provider of services. The services provided by prime and subcontractors in the figure could easily be--and often are--provided internally by the functional communities shown.

[7] This chart and text were extracted from Frank Camm, "Strategic Sourcing in the Air Force," in Zalmay Khalilzad and Jeremy Shapiro (eds.), *Strategic Appraisal: United States Air and Space Power in the 21st Century*, MR-1314-AF, RAND, 2002, pp. 397-435.

[8] In practice, of course, supply chains are far more complex. Even in this simple example, warfighters actually buy services from materiel management, which buys services from maintenance, which in turn buys other materiel management services, and so on. A complete analysis would address all of these elements of the process. The chart offers a highly stylized simplification of the facts, which can become quite complex.

The chart uses a contracting setting to make the point that a supply-chain perspective is important, whether the services in question are provided inside or outside a single government organization.

When the providers are outside a government customer's organization, additional organizations become involved, as indicated in the boxes in the lower right and upper left. The Contracting community designs and manages aspects of the sourcing process that involve external sources, from source selection to definition and negotiation of contracts and quality assurance plans to contract close-out. It ensures that, at each stage in the process, the buying agency applies administrative law appropriately. The Financial Management community has responsibility for accounting for and disbursing funds and uses it to affect key aspects of sourcing design, particularly pricing. A variety of specialists ensure that government agencies observe their socioeconomic commitments to full and open competition, support for small business, and so on. The Inspector General and other auditors provide an independent check on the performance of buyers and sellers of services relevant to the ultimate customer. External sources also support such supply chains. Among other things, they help the buyer develop acquisition plans and to audit contract and program compliance.

These auxiliary organizations often receive the most visibility in discussions of sourcing inside a government agency. Even though an agency currently gives these organizations important responsibilities for various aspects of sourcing policy, they are all ancillary to the supply chain itself. A clear focus on supply-chain alignment would ensure that they manage any relationship with an external source to link the source as closely as possible to the ultimate government customer, not to pursue parochial, procedural concerns of their own.

It is hard to align all these actors to a common purpose even when government policy is stable. It is even harder when it is changing, as services acquisition policy is today. One of the most common problems we have observed when parts of DoD attempt to adapt new services acquisition policies or practices is that other players do not adapt these policies and practices at the same time or in a compatible way. Four separately stove-piped activities that have proven especially hard to coordinate are the following:[9]

- Authority to obligate funds to be spent on a contractor. The effective chain of command for financial management is often separate from that for the customer seeking to acquire services.

[9] For a more detailed discussion of this challenge, see Victoria A. Greenfield, and Frank Camm, *Risk Management and Performance in the Balkans Support Contract,* MG-282-A, RAND, 2005.

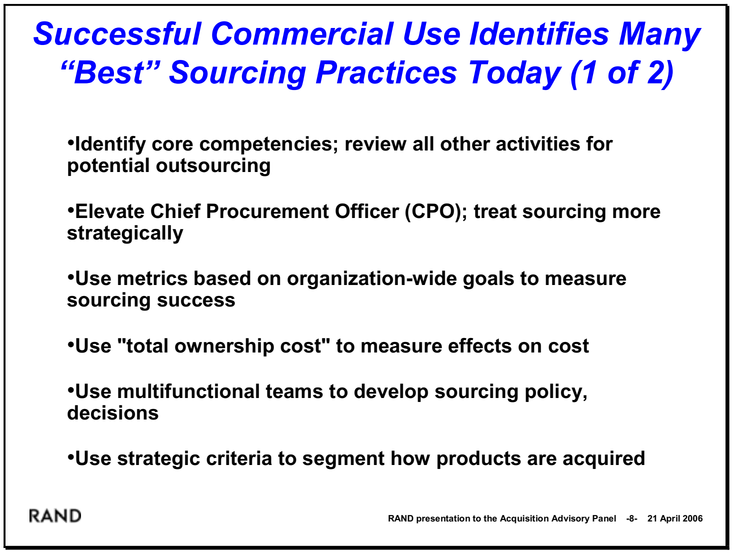
- Authority to design, finalize, and oversee execution of contract. Warranted contracting officers operate in a formal chain of command completely separate from that for the customer seeking to acquire services.

- Authority to receive contract services and judge their adequacy, and quality. The operational activity that receives contract goods and services is often different from the government organization that actually pays for the services.

- Third-party authority to audit contract performance and assess its consistency with government standards and the terms of the contract (which may differ). Inspector generals, auditors, and Government Accountability Office officials typically do not understand new practices unless the organizations adapting them include these auditing activities in the process they use to adapt them.[10]

[10] Further discussion of the points raised on this chart is available at Ellen M. Pint and Laura H. Baldwin, *Strategic Sourcing: Theory and Evidence from Economics and Business Management*, MR-865-AF, RAND, Santa Monica, CA, 1997; Laura H. Baldwin and Sarah Hunter, *Defining Needs and Managing Performance of Installation Support Contracts: Perspectives from the Commercial Sector*, MR-1812-AF, RAND, Santa Monica, CA, 2004. Useful sources outside RAND that take this perspective include Ricardo R. Fernandez, *Total Quality in Purchasing and Supplier Management*, CRC, 1994; Fred A. Kuglin, *Customer-Centered Supply Chain Management*, AMA, New York, 1998; Timothy M. Laseter, *Balanced Sourcing: Cooperation and Competition in Supplier Relationships*, Jossey-Bass, San Francisco, 1998; Joseph L. Cavinato, Ralph G. Kauffman (eds.), *The Purchasing Handbook: A Guide for the Purchasing and Supply Professional*, 6th ed., McGraw-Hill, 1999; Robert M. Monczka, Robert J. Trent, Robert B. Handfield, *Purchasing and Supply Chain*, 3rd ed., South-Western College Publishing, 2004. For a demonstration that these sourcing-oriented arguments are simply applications of a broader new management paradigm, see Frank Camm *et al.*, *Implementing Proactive Environmental Management: Lessons Learned from Best Commercial Practice*, MR-1371-OSD, RAND, Santa Monica, CA, 2001.

Chart 8



Many best commercial practices (BCPs) appear to be relevant to federal government services acquisition.[11]

To identify BCPs relevant to DoD, RAND analysts have drawn on sources like the Institute for Supply Management, Council of Supply Chain Management Professionals, International Facility Management Association, Building Owners and Managers Association, and their members. These organizations represent commercial professionals interested in purchasing and supplier management, facility management, building management, and logistics management. All such groups give sourcing BCPs a great deal of attention in their meetings, research programs, conferences, and courses.

RAND also consulted books like Timothy M. Laseter, *Balanced Sourcing: Cooperation and Competition in Supplier Relationships*, Jossey-Bass for Booz-Allen & Hamilton, San Francisco, 1998; Jordan D. Lewis, *The Connected Corporation: How Leading Companies Win Through*

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[11] The chart and the text that follows were extracted from Frank Camm, "Adapting Best Commercial Practice to the Department of Defense," in Stuart E. Johnson *et al*. (eds.), *New Challenges, New Tools for Defense Decisionmaking*. MR-1576-RC, RAND, 2003. This in turn draws heavily on Ellen M. Pint and Laura H. Baldwin, *Strategic Sourcing: Theory and Evidence from Economics and Business Management*, MR-865-AF, RAND, 1997; Nancy Y. Moore et al., "Commercial Sourcing: Patterns and Practices in Facility Management," PM-667-AF, RAND, 1997; Frank Camm and Nancy Y. Moore, "Acquisition of Services in 2010: Ideas for Thinking about the Future," DRR-2063-AF, RAND, 1999. Nancy Y. Moore et al., "Implementing Innovative Purchasing and Supply Management Practices: Lessons from Best Commercial Practice, AB-352-1-AF, RAND, 2001; John Ausink et al., *Performance-Based Contracting in the Air Force: A Report on Experiences in the Field*, DB-342-AF, RAND, 2001; Laura H. Baldwin et al., *Federal Contract Bundling: A Framework for Making and Justifying Decisions for Purchased Services*, MR-1224-AF, RAND, 2001. Laura Baldwin and Nancy Moore helped update and refine this list.

Customer-Supplier Alliances, Free Press, New York, 1995; John Gattorna (ed.), *Strategic Supply Chain Alignment: Best Practice in Supply Chain Management*, Gower Publishing, Aldershot, England, 1998; Paul Steele and Brian H. Court, *Profitable Purchasing Strategies*, McGraw Hill, London, 1996; and Ricardo R. Fernandez, *Total Quality in Purchasing and Supplier Management*, St. Lucie Press, Boca Raton, FL, 1995.

RAND consulted journals like *Harvard Business Review*, *Sloan Management Reviews*, *International Journal of Purchasing and Material Management*, and *Supply Change Management Review.* RAND also consulted well-known programs of research on best practices, like the Center for Strategic Supply Research at Arizona State University and the Department of Marketing and Supply Chain Management at Michigan State University.

These sources suggest many specific BCPs for the federal government to consider. This chart and the next one list the following:

- Identify <u>core competencies</u> -- capabilities critical to an organization's future success or its raison d'être. They constitute an organization's unique value-added and hence cannot be outsourced. (That said, very few commercial firms outsource *everything* outside their core competencies.)

- Elevate the <u>chief purchasing officer</u> (CPO) to be the executive-level champion for purchased goods and services. CPOs own the processes that the organization uses to reach make-or-buy decisions, choose specific external sources, and manage relationships with these providers.[12] Commercial CPOs generally do not *make* such decisions themselves.

- Use <u>metrics</u> for make-or-buy decisions, source selections, or source management that promote organization-wide, strategic goals.[13]

- Measure effects on cost using <u>total ownership cost</u> (TOC) to monetize as many factors as possible and apply them to organization-wide goals. TOC tends to allocate overhead costs to specific sourcing decisions to reflect all the direct and indirect costs relevant to a decision. Specific TOC measures are best tailored to the capabilities of an organization's cost accounts.

[12] This position may be called a vice president of supply management and supply chain management, especially in organizations where the buy of materiel is especially important.
[13] For details, see Laura H. Baldwin *et al.*, *Strategic Sourcing: Measuring and Managing Performance*, DB-287-AF, RAND, Santa Monica, CA, 2000.

- Develop sourcing policy decisions using multifunctional teams composed of members that have been (1) relieved of other duties, (2) trained in team processes, and (3) empowered to act for their functions without consultation. The reward structures of team members should reflect the performance of the teams they work on, based on organization-wide goals.[14]

- Use strategic criteria to segment the supplier base. Manage suppliers of high-value inputs that are critical to the buyer's performance or present other significant risks with greater care and higher-skilled staffs than suppliers of low-value inputs of a more generic character that present fewer risks. Spend analysis—careful analysis of where an organization spends its money on inputs from outside sources—is a critical enabler for segmentation; some view it as a best commercial practice in its own right.[15]

Speaking very broadly about the BCPs listed here, we can say that the federal government has given much more attention to date to some of these BCPs than to others. For example, the government is currently working toward adapting use of multifunctional teams to develop sourcing policy decisions. The government has done little to use metrics based on organization-wide goals to measure sourcing success. I will say more about this in the discussion of FAR Part 12 below.

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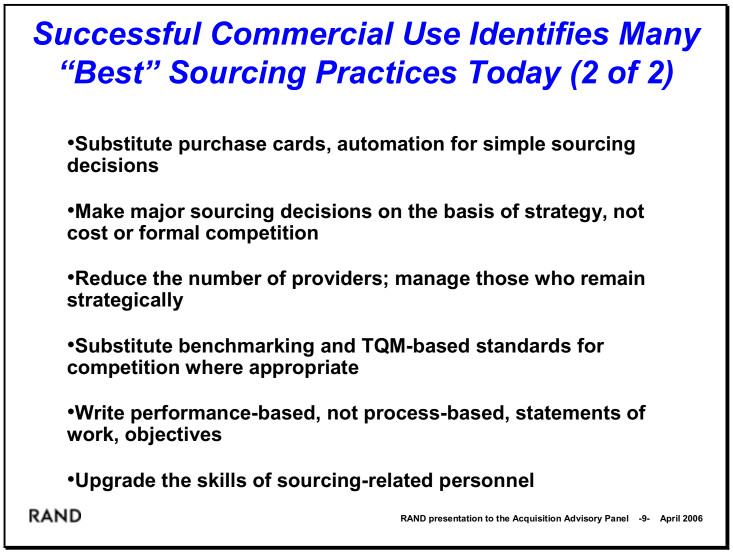
[14] For an example of relevant best commercial practice in the use of teams, see material from the Olin Corporation case study in Jeffrey A. Drezner and Frank Camm, *Using Process Redesign to Improve DoD's Environmental Security Program: Remediation Program Management*, MR-1024-OSD, RAND, Santa Monica, CA, 1999.

[15] RAND has played an active role in the application of spend analysis to defense activities. See, for example, Mary E. Chenoweth and Clifford A. Grammich, *F100 Engine Purchasing and Supply Chain Management Demonstration: Findings from Air Force Spend Analyses*, MG-424-AF, 2006; Nancy Y. Moore *et al.*, *Using a Spend Analysis to Help Identify Prospective Air Force Purchasing and Supply Management Initiatives: Summary of Selected Findings*, DB-434-AF, 2004.

Chart 9



This chart continues the list begun on the last chart:[16]

- Simplify low-priority buys with automation and purchase cards. Automation releases personnel focused on transaction management. Purchase cards further reduce transactions costs, particularly when bundled with auditing, reporting support, and spend analysis from issuing banks. They tend to work best when linked to system contracts with preferred providers that allow the buyer to leverage its purchase-card buy and track spending patterns associated with this buy.[17]

- In more strategic source selections, rely less on price and more on non-price selection criteria and detailed analysis by the buyer. Non-price factors can be critical to understanding total ownership costs and a source's ability to reduce these over time.

- Buy services in larger bundles. Bundled services can allow the buyer to benefit from provider economies of scale and scope. They can reduce transaction costs, particularly when the buyer devolves responsibility for oversight of many services to the provider. And they can help automate the purchase of services and measure the performance associated with such purchases.

[16] The chart and the text that follows were extracted from Frank Camm, "Adapting Best Commercial Practice to the Department of Defense," in Stuart E. Johnson *et al*. (eds.), *New Challenges, New Tools for Defense Decisionmaking*. MR-1576-RC, RAND, 2003. This in turn draws heavily on the sources listed in Footnote 10. Nancy Moore helped update and refine this list.

[17] Such preferred providers can customize a Web site that holders of government purchase cards can use to identify appropriate contract prices and to execute purchases.

- Reduce the number of providers used (the best buyers have cut them by an order of magnitude) and select the survivors using evidence on cultural fit and willingness to improve, standards like ISO 9000, and data on past performance. Buyers can then invest more deeply in the remaining sources to promote joint innovations and match specific providers more effectively to emerging needs. Spend analysis is a key enabler here.

- Consolidate contracts with remaining providers. This can reduce transaction costs and simplify deeper, strategic investment in a provider. It can also improve the buyer's leverage with the seller by highlighting the value of its total buy from the seller. Spend analysis is a key enabler here.

- Substitute benchmarking and Total Quality Management (TQM) standards for formal competition. The former promote continuous improvement and give a buyer greater visibility over the external world. They can yield comparative information about capabilities, on a continuing basis, that buyers traditionally relied on formal or "yardstick" competitions to get. By contrast, repeated competitions can impose unnecessary administrative and other costs and discourage long-term, joint innovation.

- Write performance-based, not process-based, statements of work and objectives. Tell a provider what to do, not how to do it. Doing this forces a buyer to think more carefully about what it values and gives providers more latitude to innovate. It also forces a buyer to capture what it values in terms of performance statements, not its assumptions about the process used to generate a product; this perspective often runs counter to current practice and must be well understood for this approach to work well.

- Upgrade skill levels in purchasing organizations. As strategic purchasing and supplier management policies grow in importance, they can no longer be managed in a back office separate from the firm's core interests. Simplifying small acquisitions can help pay for upgrading.

Again, speaking very broadly about the BCPs listed here, we can say that the federal government has given much more attention to date to some of these BCPs than to others. For example, the government is working toward adapting substitution of purchase cards and automation for simple sourcing decisions; has not yet made broad use of system contracts to leverage its buy through purchase cards. The government has done little to substitute benchmarking and TQM-based standards for competition. The government has begun to upgrade the skills of personnel who acquire services, but has much more to do. I will return to these issues in the discussion of FAR Part 12 below.

In pursuit of useful BCPs, the federal government should not view this list simply as a Chinese menu that it could mix and match arbitrarily. The best commercial firms find that these practices work best as an integrated package. The presence of one raises the effectiveness of the others for several reasons. For example:

- Strategic sourcing relies heavily on high-level interest, rigorous analysis, and carefully structured incentive systems. The latter cannot succeed without appropriate metrics.
- Effective buyer-seller partnership requires everyone's cooperation, and that takes support from the top.
- Workforce upgrading is easier when funds are available from sourcing efficiencies. Automation and simplification can free up sourcing personnel. A buyer can use the savings to upgrade remaining personnel so that they may then plan and manage more complex and creative sourcing relationships.
- Performance-based statements of work succeed only when buyers can trust sellers enough to reduce process-oriented oversight and let providers exercise enough discretion to exploit performance-based statements of work. The right source must be in place before performance-based criteria can be used.

That said, the federal government need not adopt all suggestions to realize benefits from any one of them. Instead, the government could recognize these synergies and verify that the mix it picked generated enough of them. This is a special challenge if the government breaks the introduction of strategic sources into pieces to be introduced sequentially. Such a strategy would affect the realization of important synergies.

4. Metrics, Benchmarking, and Governance

Chart 10

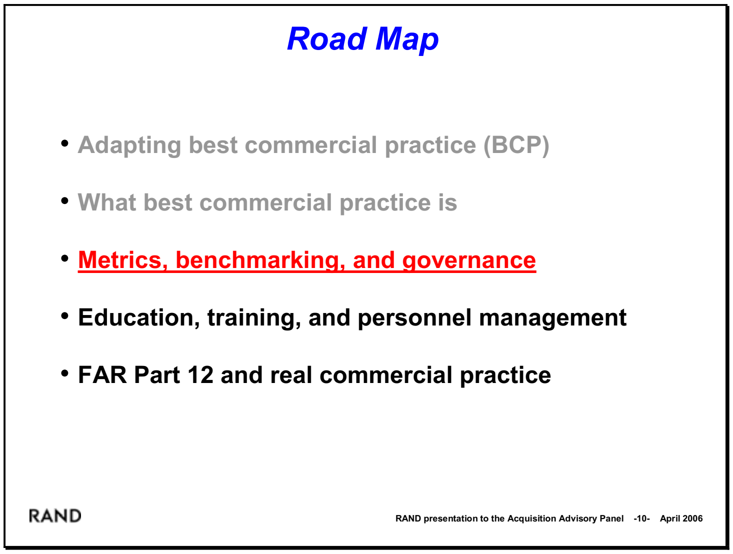
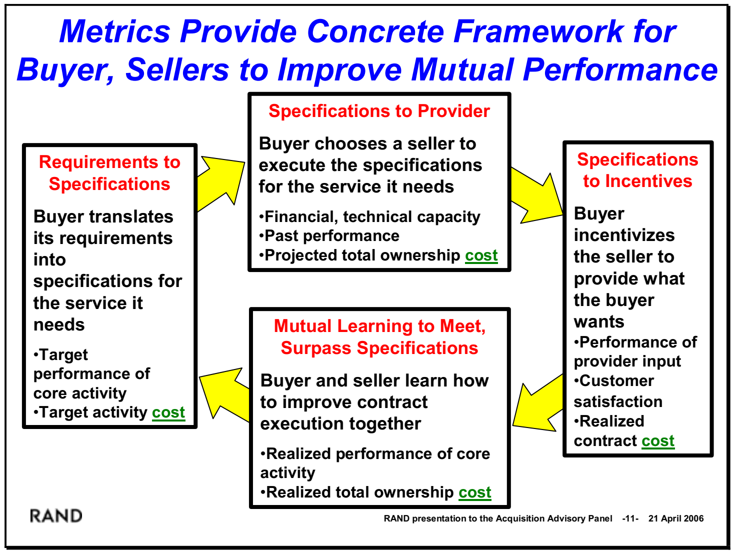


Chart 11



Metrics are integral to all of the methods associated with the new management paradigm described on Chart #6, whether organizations apply those methods to services acquisition or any other activity.[18] It is often said that accounting is the language of business. The advent of the balanced scorecard and logic modeling has taught us that the language that effective accounting provides must speak to performance as well as cash flow and monetary asset value.[19] Well-defined metrics provide the core vocabulary of such a language. Properly applied, this vocabulary facilitates effective communication among all the communities and players involved in services acquisition.

This chart illustrates how metrics can facilitate effective communication among customers, functional communities, and acquisition personnel within a buyer's organization, and between the buyer and alternative sellers of services. Metrics can play very different roles in different aspects of services acquisition. The precise definitions of metrics are likely to shift when we move from one role to another.

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[18] For more detail on this general topic in the context of services acquisition, see Laura Baldwin *et al., Strategic Sourcing: Measuring and Managing Performance*, DB-287-AF, RAND, Santa Monica, 2000; John Ausink *et al., Air Force Service Procurement: Approaches for Measurement and Management*, MG-299-AF, RAND, Santa Monica, CA, 2005.

[19] See, for example, Robert S. Kaplan and David P. Norton, *The Balanced Scorecard: Translating Strategy into Action*, Harvard Business School Press, Boston, 1996; Victoria A. Greenfield *et al., Using Logic Models for Strategic Planning and Evaluation*, TR-370-NCIPC, RAND, Santa Monica, CA, 2005.

The chart depicts a variation on a Shewhart cycle, one of the core tools of the new management paradigm.[20] To see how such a cycle works in a service acquisition, let us trace the metrics relevant to cost at each step in the cycle. We can start anywhere in such a cycle once it is in motion, but a natural place to start in any particular service acquisition is the translation of a buyer's requirements into the specifications for a service it plans to buy. This occurs in the box on the left.

Broadly speaking, an acquisition begins with an internal operational requirement that speaks in terms of performance and cost targets. A services acquisition activity buys services as inputs to some process that serves identifiable customers; targets for acquired services flow directly from what these customers value. From a cost standpoint, the target might address the cost of some internal activity that will affect (1) the price the buyer must charge for its services to generate positive net revenue, or (2) the buyer's decision about whether and how to employ the activity internally. A target often reflects the results of careful benchmarking, market research, and spend analysis, formal risk assessment, and risk mitigation strategies devised to assured desired outcomes for the internal activity. Such targets derive from considerations completely beyond the bounds of services acquisition as most organizations typically conceive it, unless they have wrapped it into a comprehensive way of managing the supply chain.

Once this target is understood and a strategic decision has been made to pursue an external source, the acquisition process then moves into the design of an acquisition strategy, including a detailed source selection plan. From a cost perspective, the source selection will consider some measure of cost—for example, inputs from alternative sources that the source selection can use to assess the buyer's total ownership cost associated with each source—and evidence that a source's inputs are reliable—for example, evidence that the source can actually do what it has proposed to do and that it has actually done the things it proposed to do in the past. Metrics relevant to cost now address a set of inputs from each source and a set of findings that the source selection process can derive from these inputs and compare with the targets developed in the box on the left.

Once the source selection has gathered all relevant information, the government buyer can finalize agreements on specific terms of a contract. The terms of the contract in effect now define the metrics relevant to cost that appear in the box on the right. Commercial service contracts we have looked at come in many forms. Ideally, a buyer would like a contract that links total price to a set of fixed price components that vary with changes in realized workscope. This approach has the virtue of shifting risks to the provider and keeping things as simple as possible when

[20] Named for Walter A. Shewhart of Bell Telephone Laboratories, it is also popularly known as a PDCA or Plan-Do-Check-Act cycle.

workscope changes. In this approach, the price components in effect become the cost-related metrics relevant to the contract. Simple service contracts can aspire to this ideal. Commercial contracts for more complex services, where the level or mix of workscope is uncertain or technology is shifting rapidly, tend to define more complex cost-related metrics. The seller's realized costs enter the contract in a variety of roles. Whose version of "realized costs" is relevant? The commercial contracts we have observed rarely use anything close to the cost accounting standards traditionally applied in federal government contracts. They typically give the buyer some degree of visibility into the provider's cost ledgers relevant to the activities covered by a contract. The reliability of such cost data is disciplined by mutual interest in a continuing relationship; consistent bad faith on either side is likely to lead to contract termination, which commercial contracts make fairly easy. The Panel appears to have focused much of its attention to FAR Part 12 on the design of incentives that occurs in this box. I will return to this below

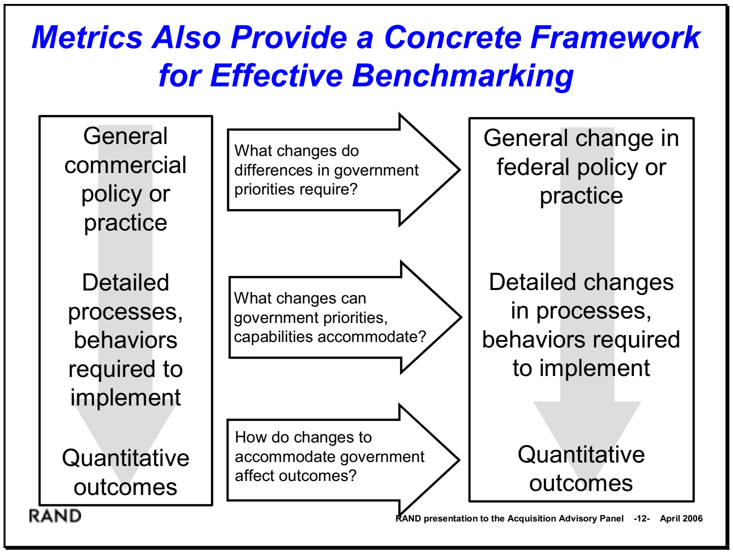
A provider's current price components of realized costs are only part of the equation relevant to a buyer. What really matters is the total ownership cost to the buyer of any activity that an external provider supports. The buyer naturally wants to cut that cost by reducing the price components that a provider offers. What is the best way to do this? Competition helps induce potential providers to cut price components to increase their probability of success. Market power helps squeeze profits from a provider that the provider's special capabilities or circumstances generate under simple, arm's length competition. Over the long term, many commercial buyers have discovered that the best way to get costs down is to induce change (1) in the process that shapes the channels through which it buys from external sources, (2) in the process that it uses to buy from each individual source, and (3) inside the individual sources it does business with, especially if it can induce improvements that improve a source's ability to serve the buyer better than it serves other buyers. All three forms of process change require cooperation between a buyer and its potential service providers. Such change occurs in the box at the bottom of the chart. Cooperation typically means that the buyer and sellers work together to reduce the total ownership cost to the buyer; the operative cost metric in this box is total ownership cost to the buyer. Now the buyer and sellers are sharing cost data with one another to achieve their mutual goals. And they typically share much more detailed metrics than those identified in any contractual document. These metrics serve not to incentivize the seller directly through the formal terms of the contract, but to support on-going dialogue between the buyer and sellers to get the buyer's total ownership costs down. Over the long term, the interaction that occurs in this box appears to be the most important element of true commercial services acquisition; this is where the real opportunities exist to drive progress toward the final customer's goals. FAR Part 12 tends to give little attention to the arrangements that can drive such improvements.

Such sharing of cost data is a required first step toward target pricing. That is, such mutual process improvement, viewed in the context of a Shewhart cycle, sets the stage for a buyer to come full circle, returning to the box on the left to reconsider the target activity cost relevant to its buyer and relevant to the next round of service acquisition that supports the internal activities that a buyer cares about.

For simplicity, this discussion focuses on cost metrics. It should be apparent that the cycle described cannot proceed in isolation from a similar consideration of performance. At each step, a similar tension exists between the performance of a buyer's internal activity and the performance of external provider activities that support the buyer.[21]

[21] For descriptions of how variations on this kind of cycle have been designed in recent large federal service acquisitions, see Frank Camm *et al*. *Recent Large Service Acquisitions in the Department of Defense: Lessons for the Office of the Secretary of Defense*, MG-107-OSD, 2004.

Chart 12



Metrics also help an organization benchmark activities outside itself and assess the consequences of adapting these activities for its own use.[22] To understand how this occurs, it is useful to appreciate that benchmarking can proceed on three different levels.

At the highest level—the level, for example, addressed in Charts #8 and #9 above—benchmarking speaks in terms of broad policies or practices. The federal government could ask what general policy or practice to consider and how it might fit into the federal environment in broad terms. Even at this level, it is possible to identify relevant differences in incentives, information systems, and so on that will affect the way the federal government accommodates a new policy or practice.

At a second level, the federal government can ask how a benchmark activity implements a specific policy or practice and what processes and behaviors would have to change in a federal setting to implement a useful analog. To some extent, experts and specialists can observe benchmark activities at arm's length and propose federal analogs. But success typically requires that the people who will implement the new approach in the federal government observe the benchmark activities directly and ask the people currently performing the benchmark activity lots of very practical questions. A significant portion of the benchmarking will occur through transfer

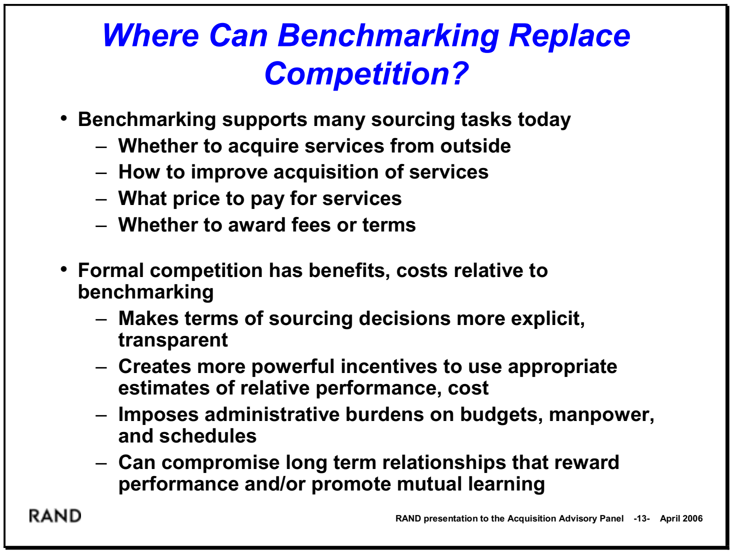
[22] For more detailed discussion, see Frank Camm, "Adapting Best Commercial Practices To Defense," in Stuart E. Johnson *et al., New Challenges, New Tools for Defense Decisionmaking*, MR-1576-RC, RAND, Santa Monica, 2003.

of latent knowledge from people performing the benchmark activity to federal employees seeking to emulate it.

At a third level, successful implementation in the benchmark activity yields observable, measurable outcomes. These outcomes reflect proper implementation. Similar measures can be developed, in principle, to predict outcomes in the federal setting and to predict the effects of adjusting policies and practices and the details of their implementation on federal outcomes. Metrics track these benchmark and federal outcomes and provide a vocabulary that people can use to assess alternative approaches and so to tailor any benchmark activity to federal priorities and the federal environment. When federal and benchmark definitions of integrity, equity, and/or efficiency differ, definitions of relevant metrics may also differ. Capturing such differences is critical to using metrics effectively in the adaptation of best commercial activities to the federal setting.[23]

[23] As a practical matter, benchmarking often flows from the (1) high-level view to (2) comparison of externally observable performance as captured in metrics to (3) hands-on exchanges to transfer the latent knowledge required to identify what really allows a new policy or practice to yield the performance levels observed. In the chart and text, we address metrics last to emphasize their role in documenting the effects of adjusting details of the design of policies and practices and of their implementation.

Chart 13



Benchmarking is well suited to assessing a counterfactual situation—for example, asking how outcomes might change if a buyer used a different source of services. It can potentially accommodate all the concerns relevant to identifying an alternative way of doing things and asking how this alternative would likely work in a new setting—for example, supplying services to a federal buyer rather than supplying someone else.[24]

As a result, buyers use benchmarking or some form of market research very similar to it to support many sourcing-related decisions today. They make administrative decisions of whether to "make" or "buy" a particular service.[25] They examine a service acquisition practice elsewhere and adapt it for their own use based on a benchmarking-based assessment of how the practice will affect their own costs and performance. They write contracts that set prices over the life of the contract based on on-going benchmarking studies and the prices and performance levels of comparable service contracts elsewhere.[26] In a similar manner, they can make decisions about the level of award fees or exercising an award term based on how a provider's price and performance levels compare with those in comparable contract arrangements elsewhere.

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[24] This discussion is drawn from Frank Camm, "Using Public-Private Partnerships Successfully in a Federal Setting," in *High-Performance Government: Structure, Leadership, Incentives*, (ed. by Robert E. Klitgaard, Paul Charles Light), MG-256-PRGS, RAND, Santa Monica, CA, 2005, pp. 179-216.
[25] The streamlined version of cost comparison under OMB Circular A-76 effectively implements this version of benchmarking.
[26] For an example in a federal setting, see the discussion of National Security Agency (NSA) acquisition of computer support in Frank Camm *et al*. *Recent Large Service Acquisitions in the Department of Defense: Lessons for the Office of the Secretary of Defense*, MG-107-OSD, 2004.

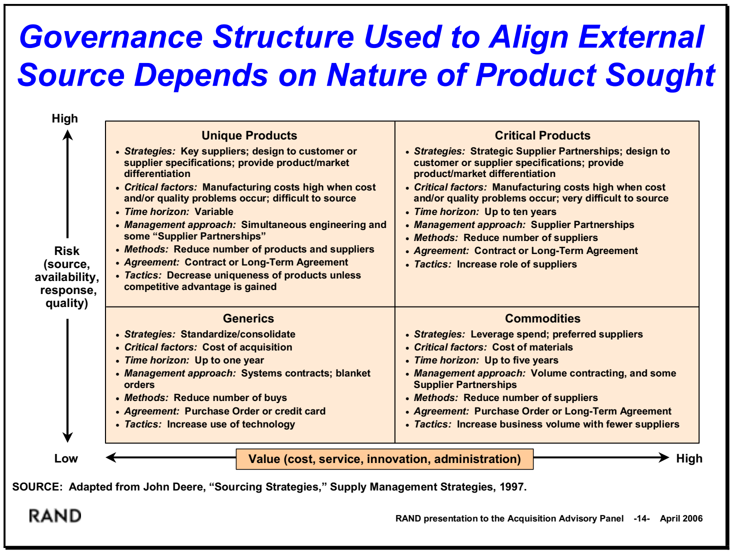
These applications of benchmarking provide administrative methods to discipline and motivate providers without the use of formal competition. Because formal competition is costly for buyers and offerers and can take a lot of time to comply with the stipulations of administrative law, it is natural to ask if such forms of benchmarking can actually replace competition.[27] Competition remains a core tool in best commercial practice. But we have seen many examples where some administrative variant of benchmarking has allowed commercial buyers to simplify competition, use it less often, or use it as much as a threat in the background as a routine decision-support device.

The key advantage of formal competition is that it can be designed to be transparent. It identifies a predictable process and executes that process in a way that visibly sustains specific goals for integrity, equity, and efficiency. Its potential openness, predictability, and even-handed application of its rules can support goals for process integrity and fair treatment of anyone that chooses to use it. The high-powered incentives it creates can encourage offerers to be honest about what they can actually do and encourage buyers to choose sources most able to provide the services in play. These advantages lead immediately to an important disadvantage relative to benchmarking—formal competition typically costs more in terms of buyer and offerer effort and takes longer. Frequent, serial, formal competition can also induce buyers and seller to shorten their planning horizons in a relationship and therefore give less attention to learning how to solve problems together.

Federal policy, embodied in the Competition in Contracting Act of 1984 (CICA), tends to encourage federal buyers to rely more heavily on competition than many commercial firms identified by their peers as best in class. Award terms provide new ways for federal agencies to adapt increased reliance on administrative methods like benchmarking to replace formal competition. But federal agencies cannot use such administrative methods as easily as commercial firms to broaden the scope of existing relationships without competition. More generally, many federal procurement personnel continue to harbor a deep suspicion of the less-than-arm's length relationships required to nurture partnerships and long-term mutual learning, precisely because these tend to compromise the power of formal competition when it is applied.

[27] Microeconomic textbooks typically portray competition as "costless." For a useful summary of the real-world short-term and long-term transaction costs associated with competition, see Chan S. Hahn *et al*., "Costs of Competition: Implications for Purchasing Strategy," *Journal of Purchasing and Materials Management*, Fall 1986, pp. 2-7. Transactions cost economics compares such costs with the costs of alternative governance structures to determine which is preferred in a particular transaction setting. For a useful introduction, see Paul H. Rubin, *Managing Business Transactions: Controlling the Cost of Coordinating, Communicating, and Decision Making*, Free press, New York, 1990.

Chart 14



So when should a buyer rely most heavily on (1) formal competition or on (2) partnership and the non-competitive, administrative mechanisms that accompany it? One important best commercial practice, often called segmenting the supplier base, addresses precisely this question. This chart uses John Deere's approach to sourcing to illustrate such segmentation. The commercial and academic sourcing literatures document many variations on this approach. We use John Deere's approach as a concrete way to capture and *illustrate* the key elements of segmentation.[28]

John Deere asks two questions about the goods and services it buys from external sources: (1) What is the strategic importance of a purchased service to the enterprise as a whole—what is its "value"? And (2) how important is the purchased service to the buyer's ability to avoid catastrophic failure—how much "risk" is associated with it? This figure sorts answers to the first question on the horizontal axis and to the second question of the vertical axis. For simplicity, the figure highlights four qualitatively different ways to manage suppliers.

If John Deere buys a service that is not critically important to its enterprise-wide strategy or relevant to catastrophic failure, John Deere can treat the service as "generic." As the box on the lower left indicates, John Deere seeks to standardize its demands for generic services, cut the number of providers of such services, write system contracts with these providers, induce them to

[28] This discussion is drawn from Nancy Y. Moore *et al.*, *Implementing Best Purchasing and Supply Management Practices: Lessons from Innovative Commercial Firms*, DB-334-AF, RAND, Santa Monica, 2002. See this document for more information on alternatives to the John Deere approach described here. The approach discussed here is an integral part of an organization's portfolio management program—its program to assess and manage risk across all activities in the organization.

cut their costs for their standardized products, and use automation and other simplified acquisition methods to reduce the transaction costs relevant to the total ownership costs of buying specific, generic services. Frequent, serial, simple but formal competition plays a central role here in choosing specific sources.

If, on the other hand, John Deere buys a service that it deems to be important to realizing its enterprise-wide strategy or relevant to its concerns about catastrophic failure, John Deere treats the service as "critical." Many companies may simply choose to produce such critical services in-house to maintain effective control over their provision. The box in the upper right shows how John Deere approaches an external source of such a service. If John Deere can find a suitable partner, it develops an increasingly deep relationship with such a company over time. The partners invest in one another with an expectation that their relationship will continue for a long time. They work to integrate their processes in ways that service the needs of John Deere's final customers. Such suppliers offer innovations and share with John Deere in the net profits that such innovations generate. Cooperation is more important than on-going formal competition.

In between are intermediate arrangements, described briefly in the lower right and upper left boxes. John Deere's partners have historically migrated progressively toward the upper right. As they demonstrate that they can be trusted, John Deere works more closely with them, substituting governance arrangements that emphasize cooperation for arrangements that emphasize competition. As John Deere works more closely with an external provider, it commits more resources to the relationship. In particular, it employs more experienced, educated, and highly skilled personnel who can apply more sophisticated analysis to issues that arise in the relationship. The importance of the relationship justifies such an investment. High-quality personnel and analysis help discipline behavior, inside and outside John Deere, in the context of such a noncompetitive relationship.

At any point in time, then, John Deere treats different suppliers in fundamentally different ways. Competition and cooperation coexist side by side. Any government assessment of "customary commercial practice" will benefit from a subtle understanding of such arrangements, an understanding that matches appropriate governance structure to the attributes of the goods and services the government buys and the degree of trust it can sustain with specific external sources. We return to these issues below.

5. Education, Training, and Personnel Management

Chart 15

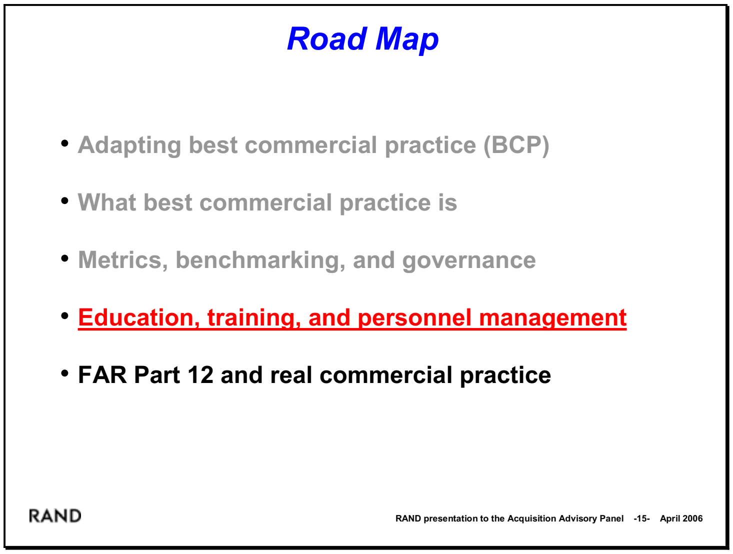
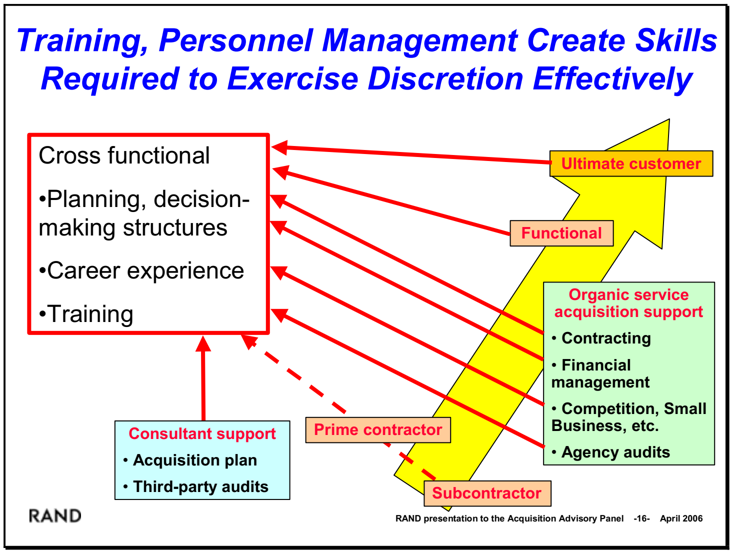


Chart 16



The supply chains depicted in Chart #7 identify many different players with various roles in a government buyer's purchase of services. Best commercial practice seeks to integrate these players in ways that align each of their roles to a common purpose—pursuing the goals of their ultimate customer. This chart abstracts from the earlier chart to emphasize that each of the relevant players has a potential role to play in effectively aligned planning and decisionmaking structures, development of skills through individual careers, and specific training in specific skills.[29]

Government agencies now broadly appreciate that cross-functional planning and decisionmaking structures can help government agencies overcome their traditional "stovepipes." Our on-going

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[29] This discussion draws on several sources. For an overview of best commercial practice and its implications for the skills required in future government services acquisition, see Frank Camm and Nancy Y. Moore, "Acquisition of Services in 2010: Ideas for Thinking about the Future," briefing to 912(c) Study Group for Review of the Acquisition Training, Processes and Tools for Services Contracts, Arlington, VA, 1998; and Nancy Y. Moore *et al*., *Implementing Best Purchasing and Supply Management Practices: Lessons from Innovative Commercial Firms*, DB-334-AF, RAND, Santa Monica, 2002. For a consensus view within DoD on the requirements for such skills and training to sustain them, see Frank J. Anderson, Jr. (BGen, USAF), "A Plan to Accelerate the Transition to Performance-Based Services: Report of the 912(c) Study Group for Review of the Acquisition Training, Processes and Tools for Services Contracts," Report AF903T1, Department of Defense, Washington, 1999. For information on how the current services acquisition workforce in DoD is adapting new services acquisition practices to the DoD setting, see John Ausink *et al., Performance-Based Contracting in the Air Force: A Report on Experiences in the Field,* DB-342-AF, RAND, 2001. For information on how to validate training programs and integrate personnel upstream and downstream in the supply chain to create an carefully aligned regimen of training, see Susan A. Resetar *et al., Environmental Management in Design: Lessons from Volvo and Hewlett-Packard for the Department of Defense*, MR-1009-OSD, RAND, Santa Monica, CA, 1998.

work with DoD, however, tells us that the government still has much to learn from best commercial practice. For example:

DoD routinely uses cross-functional integrated process teams to bring many players together in ways that are designed to speed decisionmaking and improve the decisions that emerge from these processes. But DoD still does not give participants in such teams the authority to commit their home activities to decisions. It does not normally train its personnel in the dynamics of teams to help them work more effectively in team settings. It does not define the outcomes of such teams' actions in terms relevant to the final customer, terms that can help each player stretch beyond traditional views and norms to generate mutually attractive outcomes. It does not evaluate participants in such teams against the goals of the teams and reward them for their team accomplishments instead of their performance within their home activity.

DoD does not normally rotate functional specialists through contracting or financial management billets to broaden their understanding of what DoD really needs from external providers of services. It does not place full-time individuals with the engineering skills normally associated with a functional activity or the business training normally associated with financial management activities into organizations with services acquisition responsibilities. Similarly, acquisition specialists typically do not rotate through or reside in traditional functional communities. Customers tend to defer to functional communities, even if they are deeply dissatisfied with the level of service the functional communities provide; the customers often act as though doing functional support work is beneath the core mission activities they execute. It is even more unusual for prime or subcontractor personnel to rotate through government billets or for government personnel to rotate through private-sector billets to deepen all players' appreciation of the interests of everyone involved. Professional exchange programs do exist in a federal setting. But ethics concerns often discourage their use. Best commercial practice suggests that all of these activities help align all the personnel in a supply chain to a common purpose. Such alignment involves many parts of a buyer organization beyond services acquisition, and that is part of the problem. Efforts in DoD to promote such broad alignment have had difficulty getting traction precisely because no one office as specific responsibility or assigned authority to coordinate such personnel alignment.

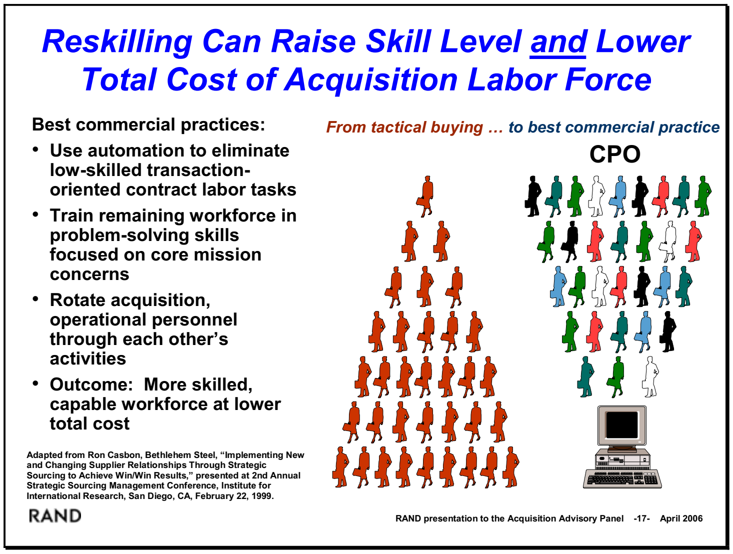
Training presents a microcosm of this problem in a specific setting. DoD personnel responsible for a particular service acquisition rarely train for such acquisition with specialists from all the fields relevant to its planning and execution. Contractor personnel rarely train with government personnel to clarify the roles and responsibilities on both sides of the contracting boundary. In fact, contractor personnel often bring experience from previous government services, creating two problems. First, they are often more experienced than their government counterparts and can exploit that difference to their advantage. Second, they can become a conservative force in a time of change, using their experience advantage to preserve the practices they learned when they served in the government. Training that included government and contractor personnel together could ameliorate both problems. Such training in a broader setting, designed to look beyond government contracting to more general commercial services acquisition practice, could also help address both issues. Unfortunately, when federal agencies compare the monetary prices charged for federal and commercial conferences and other training opportunities, they often choose the federal programs for their lower prices without thinking about the potentially much higher value of the commercial programs.

A particular problem in some cases has been ensuring that the government agencies responsible for executing contracts, like the Defense Contract Management Agency, and for auditing contracting performance, like the Inspector General and GAO, understand new contracts in the same ways that the agency personnel who designed the contracts do. Including these "external" players in formal training can help ameliorate this problem by (1) exposing the external parties to new ideas, and (2) helping government agencies understand and anticipate the concerns of the external players who will enter the picture later in a service acquisition.

Implicit in the discussion above is an expectation that the personnel responsible for any specific service acquisition will be intellectually ready for the more complex and demanding planning and decisionmaking structures, career progression, and training required to align everyone to a common purpose. At each level, the importance of problem solving and other analytic skills rises relative to that of understanding how to comply with specific sourcing guidelines. Best commercial practice seeks more highly educated personnel to help align its supply chains. Advanced degrees in engineering and business are becoming more and more important throughout the supply chain, including parts of services acquisition traditionally staffed by high school graduates with little formal technical education.

DoD is beginning to move in this direction. But moving the existing government workforce in this direction is challenging. Federal agencies continue to emphasize hiring personnel with relatively low skills and experience and training them through the course of their careers. As technical and analytic skills become increasingly relevant to federal services acquisition, lateral entry of highly educated professionals is likely to become more important. Commercial firms often find that considerable staff turnover is required to bring such highly educated personnel into place in services acquisition. Traditional federal personnel culture will have great difficulty accommodating dramatic personnel turnover.

Chart 17



When organizations make the adjustments summarized in the last chart, their services acquisition workforces begin to look quite different. The experience of Bethlehem Steel summarizes that of many commercial firms in the picture shown in this chart.[30]

Traditional services acquisition is tactical. It focuses purchasing specialists on small transactions and the administrative workload associated with defining and executing such transactions. Such an approach requires many people with limited education, training, and career experience, with a fairly narrow scope of skills, and relies on compliance with precisely framed guidelines to align the work of these personnel with the organization's strategic priorities.[31]

Best commercial practice is strategic by comparison. It standardizes transactions in ways that allow automation and eliminate the need for many lower-skilled personnel. It brings a much broader range of skills into services acquisition and focuses their activities on higher-level problem solving and analysis, particularly for more critical services, that seeks to adapt purchasing arrangements to the organization's ever-shifting priorities as the needs of its own

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[30] The chart and text draw heavily on Nancy Y. Moore *et al*., *Implementing Best Purchasing and Supply Management Practices: Lessons from Innovative Commercial Firms*, DB-334-AF, RAND, Santa Monica, 2002. See also John Ausink *et al., Air Force Procurement Workforce Transformation: Lessons from the Commercial Sector*, MG-214-AF, RAND, Santa Monica, CA, 2004, and Lynn M. Leftwich *et al., Organizational Concepts for Purchasing and Supply Management Implementation*, MG-116-AF, RAND, Santa Monica, CA, 2004.

[31] Frederick W. Taylor would recognize this approach as the "Scientific Management" system he and others perfected in the industrial factories of the early twentieth century. By carefully standardizing tasks, large organizations could use low-skilled personnel to assemble complex products. Large organizations could also use large numbers of personnel with modest skills, applying carefully crafted templates, to buy most of the services that the organizations needed.

customers change. To give such a diverse and dynamic activity coherence, it uses a chief purchasing officer (CPO) as a high-level advocate for strategic purchasing within the organization's leadership.[32] The CPO is responsible for the organization's broad sourcing processes and the personnel management policies that sustain them; the CPO explains these processes to other leaders and ensures that the processes are aligned to serve their needs as they in turn service external customers.

Three of the central, strategic priorities of large commercial firms operating in dynamic markets are to (1) sustain agility, (2) control costs, and (3) promote innovation so that they can survive and prosper in these dynamic markets. The best commercial services acquisition practices that commercial firms tend to emulate are allowing such firms to do all three things at the same time. Changing the organization of services acquisition and the skills that implement services acquisition increases the *direct* cost per acquisition worker by creating a more highly skilled work force. But a more highly skilled workforce has, in practice, been able to reduce a buyer-organization's total ownership costs of the services it acquires from external sources by making providers more responsive to the buyer's ever-shifting internal requirements, reducing costs of doing business with specific providers, and ultimately helping these providers reduce their own internal costs of planning, design, and production to meet the buyer's needs. This is true in part because best commercial practice uses the buyer's total ownership cost as a key metric to judge the usefulness of any service acquisition practice. Organizations doing this (1) allocate resources to services acquisition based on specific business plans with specific expectations for cost and performance and then (2) refine their services acquisition activities to improve their costs and performance against these expectations. This approach is quite different from prevailing federal practice.

[32] Again, many firms refer to this position as a vice president of supply management or supply chain management.

Chart 18

Just-in-Time Training Can Quickly Prepare Multi-Functional Team for an Acquisition

Monday	Tuesday	Wednesday	Thursday	Friday
Introduction to the training approach and case	Market research	Defining require-ments 2: Government regulations	PWS/QA plan 2: Managing problems	Performance manage-ment 2: Significant surprises
Basic training on team process	Defining require-ments 1: Customer needs	PWS/QA plan 1: Basic design	Performance manage-ment 1: Day-to-day manage-ment	Wrap-up: Summary Assessment Discussion of local problems

Source: Sec. 912(c) Services Acquisition Training Industry Day, Ft. Belvoir, VA, May 1999

RAND

RAND presentation to the Acquisition Advisory Panel -18- April 2006

RAND's many years of working with services acquisition personnel in the Air Force have revealed a persistent set of questions about how to implement new approaches to services acquisition. Focus groups conducted as part of RAND's support for the 912(c) Study Group for Review of the Acquisition Training, Processes and Tools for Services Contracts helped clarify training needs in the DoD services acquisition workforce. Air Force efforts to transfer expertise from its systems acquisition community into the services acquisition community responsible for conducing cost comparisons under OMB Circular A-76 demonstrated how "just-in-time" (JIT) training might address these training needs when DoD personnel need new skills to address a specific new service acquisition. This chart summarizes what such JIT training might look like.[33]

The JIT training described here brings the team that will conduct an acquisition together at the very beginning of the acquisition. It walks the team through a one-week exercise run by a coach who exposes the team to each task that the team will need to address together and lets the members of the team simulate their roles during the acquisition to help them anticipate (1) what they will face and (2) what the consequences of different choices might be. The training is likely to be more effective, the more closely it addresses the services about to be acquired. But the potential exists to build a general training template that can address the key issues identified in focus groups in a canonical case study setting that is "real enough" to be useful in preparation for

[33] This material draws on Frank Camm, "Design of a 'Just-in-Time' Course on Performance-Based Services Acquisition at the Installation Level," briefing to Sec. 912(c) Services Acquisition Training Industry Day, Ft. Belvoir, VA, May 1999; and Nancy Y. Moore *et al.*, Implementing *Best Purchasing and Supply Management Practices: Lessons from Innovative Commercial Firms*, DB-334-AF, RAND, Santa Monica, 2002.

a specific service acquisition. If such a template were prepared, the federal government could refine variations on it over time to address the specific requirements of specific acquisitions in increasingly close detail.

The basic concept outlined here walks a team, end-to-end, through a case defined in the same depth of detail associated with a standard business-school case. It uses a Socratic method to draw answers from the students in the team as they simulate decisions that arise in the acquisition. This approach could be supported by Web-based tools, but relies heavily on face-to-face work with a human coach, with real-world service-acquisition experience, to capture the subtleties of solving service acquisition problems in different ways. This approach has not yet been tested in a federal setting. It offers one way to deal with shortcomings in the skills of the existing federal services acquisition workforce and deserves further attention.

6. Far Part 12 and Real Commercial Practice

Chart 19

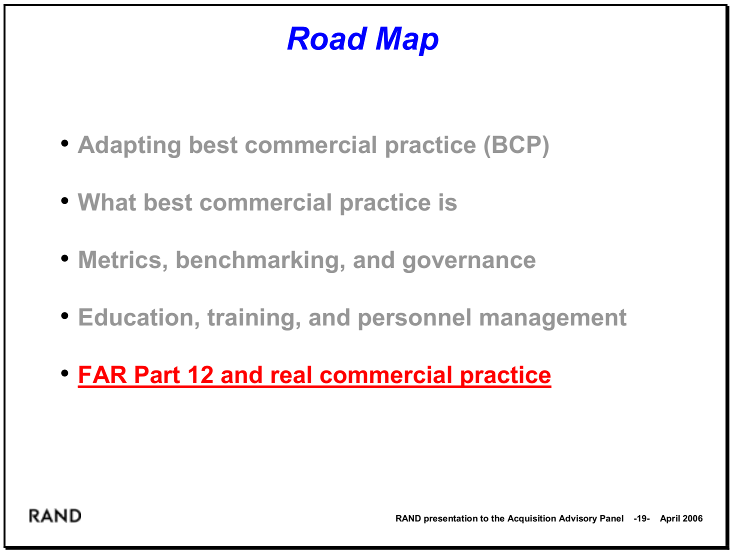
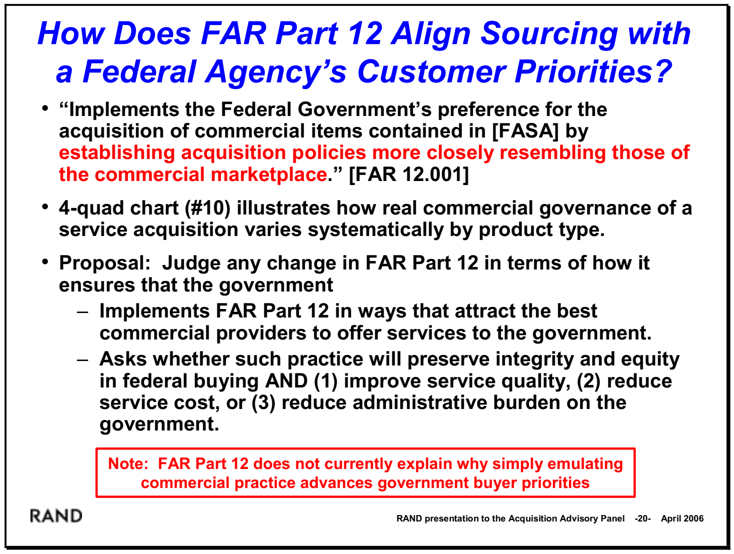


Chart 20



FAR Part 12, on federal acquisition of commercial items, "implements the Federal Government's preference for the acquisition of commercial items contained in Title VIII of the Federal Acquisition Streamlining Act of 1994 (Public Law 103-355) by establishing acquisition policies more closely resembling those of the commercial marketplace and encouraging the acquisition of commercial items and components" [FAR 12.000]. How closely does current federal implementation of FAR Part 12 bring federal acquisition of services to best commercial practice?

One of our principal goals in this briefing is to clarify how much best commercial practice—much less commercial practice in general—varies from one situation to another. Charts #8 and #9, for example, show the richness of best commercial sourcing practice, even when viewed from a very high level. Details for each practice listed vary from company to company and over time. Chart #14 shows how one company varies its acquisition of services from one type of service and provider to the next. Such variation within commercial strategic segmentation systems is common. FAR Part 12 implicitly recognizes the complexity and subtlety of such commercial practice by highlighting the importance of market research [FAR 12.202] and repeatedly referring not to detailed commercial practices, but to "customary market or commercial practice" and practices "customarily used in the commercial marketplace."

When applying FAR Part 12, which "customary commercial practice" should a federal buyer apply where to acquire a particular service? How should the federal buyer adapt that practice to a federal setting? To start, note that FAR Part 12 addresses only a small portion of the commercial practices mentioned above. It focuses within a specific service acquisition. So we should not ask

FAR Part 12 to drive most of the agenda suggested by the broader set of best practices that increasingly drive services acquisition in commercial firms. Within a service acquisition, FAR Part 12 repeatedly reminds a buyer to tailor the acquisition strategy for buying a specific service to customary practices that, “best meet the needs of the Government” [e.g., FAR 12.202] or “adequately protect the interests of the Government” [e.g., FAR 2.402]. Such guidance leaves extraordinary discretion to the government buyer. What are the relevant “interests of the Government”? How important is one interest relative to another? What, for example, is the relative importance of integrity, equity, and efficiency in a particular service acquisition?

FAR Part 12 could be more helpful to the federal services acquisition professional if it clarified that the use of “acquisition policies more closely resembling those of the commercial marketplace” is *not* an end in itself. Many commercial practices exist. Some “customary” practices are consistent with the new management paradigm. Among these, only some are potentially applicable in any particular setting. And even the best commercial practices need to be adapted to any new commercial or government setting. A federal buyer should look to commercial practice as a place to seek innovative *ideas* that it can *further develop* to advance its own priorities. Best commercial practice can benefit the federal government in either of two ways.

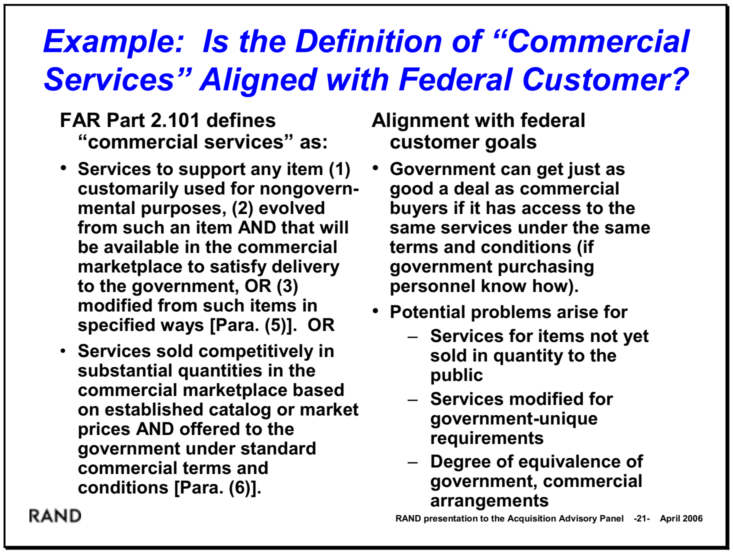
- It can signal that the federal government intends to be a “best service buyer” and thereby attract the interest of the best commercial service providers.

- It can give the government new ways to (1) improve service quality, (2) reduce service cost, or (3) reduce administrative burden on the government while sustaining reasonable definitions of integrity and equity in the federal services acquisition process.

FAR Part 12 should explicitly encourage federal buyers to *adapt* commercial practices in ways that do one or both of these things in any specific service acquisition.[34]

[34] More conceptually, alternative approaches to acquiring any service can be thought of as alternative governance structures. Best commercial practice uses on-going competition among *buying* organizations to choose and sustain specific governance structures in specific circumstances that serve the mutual interests of buyer and seller. For a useful conceptual approach that might be applied to compare alternative ways to structure a federal service acquisition, see Oliver E. Williamson: "Comparative Economic Organization: The Analysis of Discrete Structural Alternatives," *Administrative Science Quarterly,* Vol. 36, 1991. Williamson’s approach relies on economic competition among organizations using alternative governance structures to test any decision made in specific circumstances. For a broader view of the design of contracts that is consistent with Williamson’s emphasis on the tendency of governance arrangements that enhance social welfare to survive in the face of competition, see Richard A. Posner, *Economic Analysis of Law*, 5th ed., Aspen Law & Business, New York, 1998.

Chart 21



To be a bit more specific, let us consider how the FAR defines the commercial services covered by FAR Part 12 and ask if this definition promotes the application of best commercial practice to federal services acquisition. FAR Part 2.101 defines the material *items* that the federal government should treat as "commercial." It derives an implicit definition of commercial *services* from this definition by highlighting services that support commercial items [Para. (5)]. It also includes services sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices *and* offered to the government under standard commercial terms and conditions [Para. (6)]. The chart loosely summarizes these definitions in the column on the left. FAR 12.102 requires, in one of the most precise statements in FAR Part 12, that FAR Part 12 "*shall* be used for the acquisition of supplies or services that meet the definition of commercial items at 2.101" [emphasis added].

How does this requirement promote the interests of a typical federal customer—the central concern of best commercial practice? FAR Part 12 embodies an unstated presumption that the federal customer will be better off if a federal buyer does business the same way that commercial buyers do when acquiring similar services. This presumption has two unstated parts:

- The federal buyer can discover an appropriate commercial approach to buying and implement it correctly.

- When implemented, the commercial approach will be suitable for application in a federal setting.

This presumption involves a very clear image of the capability of the federal buyer that will apply FAR Part 12. FAR Part 12 can align any specific service acquisition with a federal customer's priorities only if the relevant federal buyer (1) is quite sophisticated about how to use commercial practice and (2) understands how to adapt commercial practice to a federal setting. Is this image warranted?

In a review of the initial application of performance-based services acquisition to simple services in the Air Force, we were pleasantly surprised to observe the initiative and resourcefulness of front-line services acquisition personnel working at the base level with little experience or practical training with regard to performance-based acquisition. Through their own efforts, they developed very subtle appreciations of the markets in which they bought their services and the opportunities presented by best commercial practice. Broadly speaking, we concluded that the federal policies in place at that time, including FAR Part 12, were adequate for the implementation of performance-based acquisition of simple services.[35]

Other reviews of the outcomes of acquisition practices like those advocated in FAR Part 12 have not reached such positive conclusions. For example, the application of such practices to federal acquisition of materiel has, in several observed situations, significantly increased the costs to the federal government of acquiring this materiel. And DoD has applied FAR Part 12 where it was clearly not consistent with the interest of the ultimate DoD customer.[36]

Such empirical assessments tell us that FAR Part 12 currently leaves too much to the discretion of federal buyers of services. It does not ensure that they tailor specific procurements to the interests of the federal customer. This can be a problem for any services the federal government buys, but it is especially likely to present problems in some specific areas relevant to FAR Part 12's use of "customary commercial practices":

- Services purportedly scheduled for provision to the general public or nongovernmental buyers, but not yet available to them [see Para. (2) in FAR 2.101]. Unless a clear market for any service currently exists, it is simply not possible to observe *and adapt* a relevant "customary commercial practice" suitable to the service in question.

- Services modified for government-unique requirements [see Para. (3) in FAR 2.101]. Best commercial practice often carefully segments the generic and buyer-unique

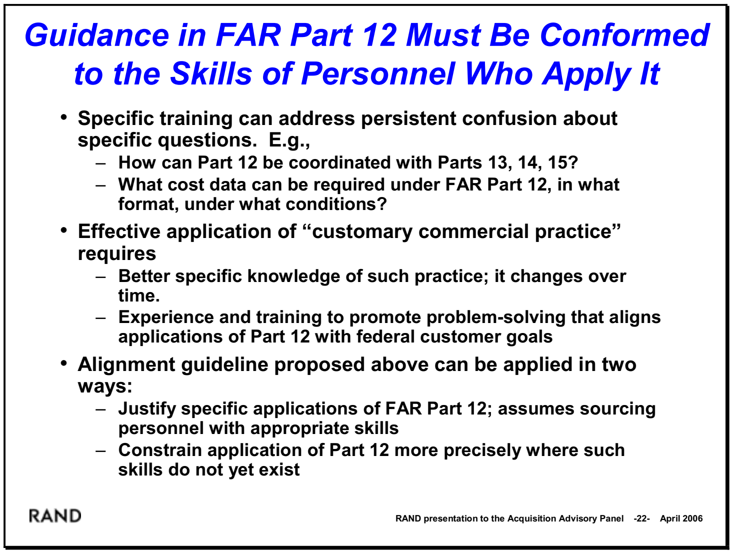
[35] For details, see John A. Ausink *et al.* (2001). *Performance-Based Contracting in the Air Force: A Report on Experiences in the Field*, DB-342-AF.
[36] For evidence on these two points, see, respectively, Joseph Besselman, "Purchasing Performance: A Public versus Private Sector Comparison of Commodity Buying," Unpublished Ph.D. thesis, Carnegie Mellon University, Pittsburgh, PA, 1998; and Mark A. Lorell *et al., Price-Based Acquisition: Issues and Challenges for Defense Department Procurement of Weapon Systems*, MG-337-AF, RAND, Santa Monica, 2005.

elements of a product and treats each in a different way. The generic portion may be suitable for "customary commercial practice"; the unique portion may not even be suitable for purchase from an external source. DoD's Civil Reserve Air Fleet (CRAF) program offers a very simple example of such segmentation. DoD effectively buys surge capacity—a service--from airlines through the CRAF program. For that program to work, DoD needs commercial airlines to equip their "standard" aircraft in ways that facilitate DoD's use of them when it needs them. DoD retains ownership of the equipment required to do this. Once this equipment is installed, DoD's relationship with each airline can proceed in much simpler, commercial-like terms.[37]

- The degree of equivalence between government and commercial arrangements. FAR Part 12 repeatedly advises federal buyers to apply "customary commercial practice." FAR Part 12 offers no guidance on how much equivalence is enough. As we argued on the last chart, it would be helpful to remind federal buyers that *equivalence by itself is not enough*. One element of best commercial practice that FAR Part 12 could emulate quite directly would be to direct federal buyers to justify and monitor any service acquisition they design in terms of its effects on acquisition integrity and equity and on the cost-effectiveness of the services acquired to the ultimate customer and the government service acquisition community.

[37] For details, see Mary E. Chenoweth, *The Civil Reserve Air Fleet and Operation Desert Shield/Desert Storm: Issues for the Future*, MR-298-AF, RAND, Santa Monica, 1993.

Chart 22



How much discretion should FAR Part 12 give federal buyers to tailor commercial practice in the government's interest? How much should FAR Part 12 ask of federal buyers who currently must seek some appropriate degree of equivalence between "customary commercial practice" and the design of specific federal service acquisitions? The answers clearly depend fundamentally on the skills and incentives resident in the federal services acquisition workforce, broadly writ. The current workforce does not have the skills or incentives required to apply FAR Part 12 in ways that consistently promote the interests of the ultimate federal customers. What should the government do?

One approach is to build the skills needed in the federal workforce. The government is clearly moving in this direction. Our work, primarily with Air Force personnel, suggests that several specific areas could benefit from more focused attention as this effort continues:[38]

- How can Part 12 of the FAR be coordinated with Parts 13, 14, 15? We find general misunderstanding of the opportunities available to mix ingredients from all relevant parts of the FAR to apply Part 12 only where it clearly serves the interests of the federal customer.

- What cost data can be required under FAR Part 12, in what format, under what conditions? We find a tendency to believe that Part 12 prohibits federal collection of any

[38] See, for example, John Ausink *et al., Air Force Procurement Workforce Transformation: Lessons from the Commercial Sector*, MG-214-AF, RAND, Santa Monica, CA, 2004.

provider cost data, even when “customary commercial practice” for a particular service relies heavily on buyer access to such data.

- What specific commercial practices exist for any particular service? We find remarkable ingenuity in the federal workforce to seek out relevant commercial practice. But a clear division continues to exist between government and commercial training for services acquisition and between government and commercial professional communities of interest relevant to services acquisition. More crossover and integration would help government buyers seeking to “do the right thing” to keep up with the on-going, rapid evolution of commercial services acquisition practice.

- What specific commercial practices are most likely to work together to promote a federal customer’s priorities? Again, remarkable ingenuity exists in the federal workforce. But that workforce still does not have easy access to training that can help it solve practical problems in the design of specific services acquisitions based on commercial practice. And the workforce remains more junior than the systems acquisition workforce within the government and the services acquisition workforce in many commercial firms known for their pursuit of innovative services acquisition.

Given the current status of the federal services acquisition workforce, we believe the proposal offered on Chart 20 can help improve federal services acquisition policy. Recall the rule: Judge any change in FAR Part 12 in terms of how it ensures that the government

- Implements FAR Part 12 in ways that attract the best commercial providers to offer services to the government.

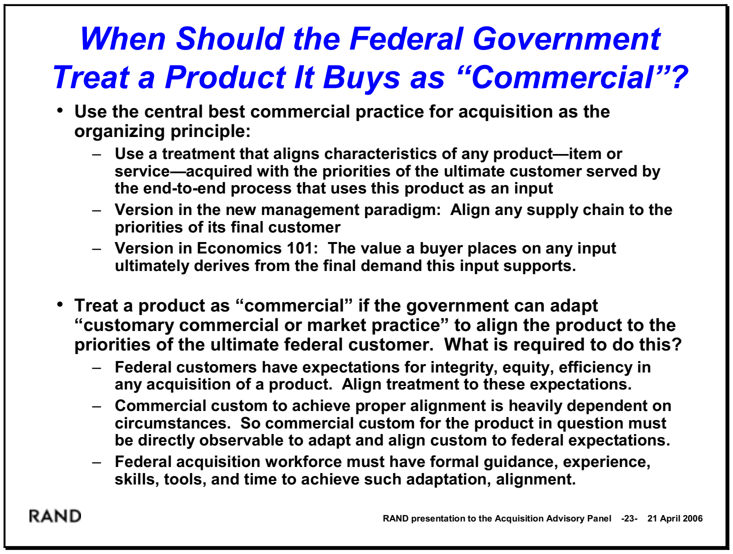
- Asks whether such practice will preserve integrity and equity in federal buying AND (1) improve service quality, (2) reduce service cost, or (3) reduce administrative burden on the government.

FAR Part 12 should explicitly encourage federal buyers to *adapt* commercial practices in ways that do one or both of these things in any specific service acquisition. Given the capabilities of the acquisition work force at any point in time, the federal government can apply this rule in two very different ways:

- It can help federal buyers frame specific service acquisitions in ways that are more likely to promote the priorities of federal customers. Judging the effect of any acquisition design on the quality of service, total ownership cost, and administrative burden it generates for the government is a challenging task. Federal buyers will need new guidelines, training, and access to expertise to implement such an approach. As noted above, however, this may be the single most important tenet of best commercial services acquisition and one well worth pursuing in a federal setting. If buyers can confidently predict how their decisions affect these outcomes, it will be much easier to leave the details of any acquisition to them to design.

Until federal buyers can apply such an approach, FAR Part 12 should constrain their discretion to prevent them from making the kinds of errors we have already observed. As the skills and incentives of federal buyers improve, FAR Part 12 can expand the discretion they have. At any point in time, however, the content of the guidance in FAR Part 12 must be conformed to the skills of personnel who apply it. The nature of conformance should presumably seek to increase the workforce's ability, *given* its skills and incentives at any point in time, to sustain the integrity and equity of federal services acquisition while increasing the quality and reducing the dollar cost and administrative burden associated with services acquired.

Chart 23



Let me sum up my argument in this last section with an answer to a basic question: When should the Federal government treat a specific product that it buys as "commercial"—that is, as something the government should buy in a "commercial" manner?

The FAR currently tends to treat the answer to this question as a two-step process:

- FAR Part 2 defines a commercial product.
- FAR Part 12 then explains how to treat anything defined as commercial in FAR Part 2.

I conflate these two steps here. I do this because I will argue that it is appropriate to define a product as commercial *only if* the Federal government is capable of using commercial custom to buy that product in a way that is superior to traditional acquisition from the point of view of the final federal customer. In effect, the definition in Part 2 should depend fundamentally on how the Federal acquisition workforce actually implements the guidance in Part 12 to buy a particular product.

As explained in Chart 7, one central best commercial practice underlies all best commercial acquisition: Effective acquisition aligns the characteristics of any product—item, good, or service—acquired with the priorities of the ultimate customers served by the end-to-end process that uses this product as an input. If the federal government seeks to establish "acquisition policies more closely resembling those of the commercial marketplace," as stated in FAR Part 12, it should emulate this central best practice in all "commercial" acquisitions.

This practice is simply an application of one of the key ideas in new management paradigm that is currently driving change throughout the public and private sectors: Align any supply chain to the priorities of its final customer. For those more disposed to rely on microeconomic theory, this practice can be understood as a direct implication of the first-order conditions in the theory of the firm that link demand for inputs to the demand for the outputs of a production process. As noted in footnotes 26 and 33, citing Rubin and Williamson, transaction cost economics uses this perspective to compare and contrast alternative governance structures for the management of transactions like federal purchase of a product from an external source. This perspective is the dominant approach that micro economists use today to assess the structure of transactions.

What does this practice say about the application of "commercial custom" to federal acquisition? It says three things:

- First, it says we need to consider how "commercial custom" affects the things that a "federal customer" cares about. On Chart 4, we argue with Kelman that the federal customer values integrity, equity, and efficiency. The federal government may choose to treat these priorities differently when it applies "commercial custom"; if so, the FAR must give the federal acquisition workforce the guidance it needs to capture the intent of federal policy properly. Transfer of any commercial practice to a federal setting typically requires some adaptation to reflect such considerations. On Chart 8, we note that best commercial firms tend to "use metrics based on organization-wide goals to measure sourcing success." That is, they (1) justify the approach to buying a product in terms of what the organization as a whole will gain from the approach, and then (2) monitor outcomes relative to expectation to see if the approach works as expected. If it does, they increase their confidence in the approach; if not, they seek alternatives. The third point below addresses this perspective from a different direction.

- Second, it says we need to determine what actual "commercial custom" is relevant to a particular federal acquisition. As Charts 8 and 9 indicate, best commercial practice comprises a rich trove of ideas. Details about how to adapt and apply these ideas change continually to reflect patterns of success and failure in the commercial world. And, as Chart 14 explains, one buyer can apply fundamentally different "commercial customs" to acquire products that differ in terms of their criticality to the buyer and the buyer's relationship with suppliers. Some purchases use what is in effect simplified retail acquisition off the shelf. Some use purchases at fixed list prices from a catalog defined through a system contract. Some use time-and-materials contracts. Some use deep sharing of raw cost and performance data to support mutually coordinated process change. A single buyer, pursuing the priorities of one set of ultimate customers, can use all of these "commercial customs" at the same time, each to buy products in different economic settings. Best commercial practice applies proactive market research to monitor such subtle patterns in "commercial custom." It is possible for market research to observe and benchmark any "commercial custom" for potential use in a particular setting only if the custom exists in a comparable setting. Commercial firms obviously need not observe a practice before trying it. But it is hard to think of a practice as a "commercial custom" relevant to federal acquisition if the "custom" does not exist in a form that allows the federal government to observe it in a setting similar to that where the government is considering applying it, presumably in a way that is comparable with the goals of the "customary" practice.

- Third, it says we care about realized results. Given the guidelines, tools, and time available to it, the federal acquisition workforce should seek to apply its experience and skills to acquire any product in the best way possible, judged in terms of measures of integrity, equity, and efficiency relevant to the ultimate federal customer. That is, the federal government should treat a product as commercial only if the federal acquisition workforce demonstrates that it consistently achieves better outcomes by adapting a "commercial custom" to acquire a product than by using some other method of acquisition. As we argue repeatedly above, the acquisition workforce needs significant capabilities to exercise its discretion in ways that advance the ultimate customer's interests. The degree of discretion given to the federal acquisition workforce should reflect its ability to use it effectively. This approach does not yield a simple definition of what a product must look like for the federal government to define it or treat it as "commercial." That is true for two reasons:

    1. First, under best commercial practice, a buyer shapes its acquisition practices to reflect the behavior of the provider market for the product it is buying. The simpler the product and the more competitive the market, for example, the simpler the buyer's approach to acquisition can be. "Commercial custom" exists for buying products (1) in very simple, competitive markets for inputs and (2) in markets for unique products that must be customized before a buyer can use them. Appropriate "commercial custom" simply changes as the nature of the market changes. The value of "commercial custom" to a federal buyer, compared to some other practice, presumably inheres precisely in the ideas it provides about how best to shape federal acquisition to the detailed characteristics of a particular market setting.

2. Second, the desirability to the federal government of applying a “commercial custom” observed in a pure commercial setting depends fundamentally on the ability of the federal workforce to adapt this custom to the federal setting. As a result, the federal government simply cannot choose a definition for any product that is independent of the capabilities of the federal work force, which we should expect to change over time.

7. Summary

Chart 24

Key Points to Take Away

Topic	Take away
Adapting best commercial practice (BCP)	•Best commercial practice is a product of on-going experimentation in the private sector that dominates the economy •Adaptation must resolve inherent differences in commercial and government priorities and capabilities
What best commercial practice does	•Aligns external sources with agency goals •Increases skills, level, discretion of workforce to promote effective alignment •Constantly adjusts practice to reflect on-going innovation in private sector
Metrics and benchmarking	•Metrics serve several qualitatively different roles in services acquisition •Benchmarking, market research sustain an agency's on-going visibility of its external environment and opportunities for internal process improvement
Partnerships and competition	•Differing degrees of partnership are appropriate for buying different services •Partnerships constrain competition; trade-offs are required to let them work
Education, training, and personnel management	•Best commercial practice tends to increase discretion throughout an agency to align external sources to high-level goals •Sourcing personnel need higher-level skills, data, analytic tools, time to execute increased discretion in an agency's best interests
FAR Part 12 and real commercial practice	•Part 12 does not currently promote effective application of best commercial practices •Discretion allowed in Part 12 should be tailored to the level of skills in the sourcing workforce that implements it.

RAND

RAND presentation to the Acquisition Advisory Panel -24- 21 April 2006

This chart collects in one place the points we hope you take away from this presentation.

On adapting best commercial practice:

- Best commercial practice is a product of on-going experimentation in the private sector that dominates the economy. Its size, relative to the government, and its high-powered incentives make it a good place for federal agencies to look for new *ideas*.

- Adaptation must resolve inherent differences in commercial and government priorities and capabilities. FAR Part 12 to the contrary, "establishing acquisition policies more closely resembling those of the commercial marketplace" is *not* an end in itself. Best commercial practice is a source of ideas that federal buyers must adapt continually to specific federal settings and services.

What best commercial practice does:

- It aligns external sources with agency goals. Any federal service acquisition practice should be carefully examined to ensure that it does this.

- It increases the analytic skills and discretion of the federal workforce to promote effective alignment. Best commercial practice seeks to increase an organization's agility while controlling its total ownership costs. Experience shows that giving the services acquisition workforce greater discretion, and the rigorous analytic skills and incentives to exercise this discretion tends to promote these goals.

- It constantly adjusts practice to reflect on-going innovation in private sector. Best commercial practice tends to induce an organization to be externally oriented, constantly scanning the horizon for changes in its environment and new ideas on how to succeed in its environment.

On metrics and benchmarking:

- Metrics serve several qualitatively different roles in services acquisition. They promote effective communication among all the communities relevant to services acquisition. The specific metrics that can do this change as different communities come to the fore in a service acquisition.

- Benchmarking and continuous market research sustains an agency's on-going visibility of its external environment and opportunities for internal process improvement. In particular, benchmarking provides a way to address counterfactual situations, like the practical application of an acquisition practice observed in a specific commercial firm to federal acquisition of a specific service.

On partnerships and competition:

- Differing degrees of partnership and formal competition are appropriate for buying different services. Commercial firms rely increasingly on partnerships with sources as specific buyers and sellers learn more about one another and how to seek mutual gains together. But partnerships are costly to design and sustain; their costs can be justified only in certain circumstances.

- Partnerships constrain competition; trade-offs are required to let them work. By definition, a partnership limits serial, formal competition for the service exchanged through the partnership. A partnership typically succeeds only when a buyer limits its on-going competition, from organic sources, with an external source. Benchmarking can allow administrative forms of competition within a partnership that compare the partnership's cost and performance with other alternatives available to buyer and seller. Partnership often expands the scope of an existing relationship when experience to date signals that such expansion is likely to be mutually attractive; no competition is required to do this. The threat of formal competition can keep partners focused on their mutual interests. But a threat of competition is not the same as formal competition itself and should be applied carefully to sustain a good working relationship. Federal competition policy makes it hard to adapt such subtle commercial approaches to partnerships.

On education, training, and personnel management:

- Best commercial practice tends to increase discretion throughout an agency to align external sources to high-level goals. As noted above, increased discretion typically allows an organization to enhance its agility at lower costs.

- Sourcing personnel need higher-level skills to execute increased discretion in an agency's best interests. These skills include general problem solving and other analytic skills often associated with general education and experience, and skills relevant to specific markets and acquisition practices that may best be acquired through professional training. Higher quality personnel can execute and assess rigorous analysis that can discipline the way they exercise their discretion.

On FAR Part 12 and real commercial practice:

- Part 12 does not consistently promote effective application of best commercial practices today. In particular, it does not make it clear that the emulation of customary commercial practice is not an end in itself. And it offers little guidance on how to ensure that a commercial practice adapted through FAR Part 12 best meets the needs of the government.

- Discretion allowed in Part 12 should be tailored to the level of skills in the services acquisition workforce that implements it. Discretion typically promotes the priorities of the federal customers only if federal buyers have the skills, incentives, data, and analytic tools required to execute that discretion appropriately. At any point in time, FAR Part 12 should be framed to reflect the level of skill and incentive structure that prevail in the federal services acquisition workforce at that point in time. As skills and incentives improve over time, FAR Part 12 can open the door for increased discretion.

APPENDIX A.

RAND PUBLICATIONS RELEVANT TO FEDERAL SERVICES ACQUISITION

John A. Ausink *et al.* (2001). *Performance-Based Contracting in the Air Force: A Report on Experiences in the Field*, DB-342-AF.

John A. Ausink *et al.* (2002). *Implementing Performance-Based Services Acquisition (PBSA): Perspectives from an Air Logistics Center and a Product Center*, DB-388-AF.

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Frank Camm (2003). "Adapting Best Commercial Practice to the Department of Defense," in Stuart E. Johnson *et al*. (eds.), *New Challenges, New Tools for Defense Decisionmaking*. MR-1576-RC.

Frank Camm (2003). “Competitive Sourcing and the Morale of Federal Employees,” Testimony before the Committee on Governmental Affairs Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, United States Senate, 24 July 2003, CT-211.

Frank Camm (2005). “Using Public-Private Partnerships Successfully in the Federal Setting” in Robert E. Klitgaard and Paul C. Light (eds.), *High-Performance Government: Structure, Leadership, Incentives*, MG-256-PRGS.

Frank Camm and Victoria A. Greenfield (2005). *How Should the Army Use Contractors on the Battlefield?: Assessing Comparative Risk in Sourcing Decisions*,” MG-296-A.

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Frank Camm *et al.* (2004). *Recent Large Service Acquisitions in the Department of Defense: Lessons for the Office of the Secretary of Defense*, MG-107-OSD.

Ike Y. Chang et al. (1999). *Use of Public-Private Partnerships to Meet Future Army Needs*, MR-997-A.

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Mary E. Chenoweth *et al.* (2004). *Organizational Policy Levers Can Affect Acquisition Reform Implementation in Air Force Repair Contracts*, MR-1711-AF.

Lloyd S. Dixon *et al.* (2005). *An Assessment of Air Force Data on Contract Expenditures*, MG-274-AF.

Jeffrey A. Drezner and Frank Camm (1999), *Using Process Redesign to Improve DoD's Environmental Security Program: Remediation Program Management*, MR-1024-OSD.

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