

NATIONAL CONTRACT MANAGEMENT ASSOCIATION

# Guide to the Contract Management Body of Knowledge (CMBOK)

## 2nd edition

Authors: Marlys Norby, Emmalyn Smith, and Ronald Smith

April 2004



## **ACKNOWLEDGMENTS**

The authors of this document—Ron Smith, Emmalyn Smith, and Marlys Norby—owe a great debt of gratitude to many people, including the Contract Management Institute (CMI), which partially funded the development of the Contract Management Body of Knowledge. The people who helped us are simply too numerous to mention individually. However, we especially thank Chuck Woodside, the first chair of the Contract Management Certification and Accreditation Board (CMCAB), under whose tenure this gargantuan effort was begun; Dr. Louise Wehrle, director of certification; and all the members of the CMCAB, without whose support and assistance this guide could not have been published. The CMCAB members are as follows:

- Victor Ramos, Certified Federal Contracts Manager (CFCM), Certified Professional Contracts Manager (CPCM), Chair
- Col. Steve Boshears, CPCM, Vice Chair
- Paula Cushman, CFCM, CPCM,
- Lyle Eesley
- Marlys Norby, CPCM
- Margaret (Marge) Rumbaugh, CPCM
- Ronald Smith, CPCM
- Dr. Ronald Straight, CFCM
- Gloria M. Sochon, CPCM

### **Special Advisors:**

- Gen. Frank Anderson, Jr.
- Tom Colangelo
- Dr. John Wyatt

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# Part I

## The Contract Management Profession

What constitutes a profession? Although individual responses to this question may differ, the Department of Labor has held that a profession has at least five distinct characteristics: a professional organization, a code of ethics, a body of knowledge, research activities, and a credentialing arm. The contract management profession has all five of these characteristics: a professional organization (National Contract Management Association [NCMA], with news of the profession being published in *CM Magazine* and the monthly electronic newsletters); a code of ethics for the profession; a body of knowledge, which is updated continuously; a research publication (*Journal of Contract Management*); a research arm (the Contract Management Institute [CMI]); and a viable and highly visible credentialing program.

## National Contract Management Association Mission and Vision

In 1959, the NCMA was formed to foster the professional growth and educational advancement of its members.

### Mission

NCMA is dedicated to the growth and development of professionals involved in public and private contract management with a business management perspective worldwide. The association strives to serve and inform the professionals it represents and to offer opportunities for the open exchange of ideas in neutral forums.

NCMA is devoted to education and training, to research and study, and to a certification program that reflects the highest standards of professional achievement. Guided by a code of ethics, the association is committed to develop and provide programs, products, and services that nurture and enhance contract management competencies, thought leadership, and business management partnering.

### Vision

NCMA's vision is to be the preeminent source of development for professionals involved in contract management with a business management perspective worldwide; to sustain and increase membership through organizational vitality and professional outreach; and to ensure the continuous practicality, timeliness, and integrity of products, programs, and services.

Thousands of professionals enhance their knowledge and leverage opportunities in purchasing, procurement, project management, and contract management with the NCMA. Comprising individual members and professional groups from nonprofit, industry, and government, NCMA provides unique resources for the contracting community.

For more than 40 years, members have taken advantage of NCMA membership benefits to advance their careers. Practical, proven survival techniques and industry news help members stay informed about current contract management events. NCMA continues to provide vital information about the field through the association's prestigious publications, educational materials, and professional resources.

Over the next five years, unimagined technological changes will produce a new realm for virtually instantaneous business transactions. And over the next decade, what now seems far-fetched in electronic commerce will become commonplace. Even the most vivid imaginations cannot predict what may occur and affect the contract management profession, NCMA, and its membership. To help prepare for the vagaries

of an uncertain future, NCMA continues to monitor the contract management profession and reflects the changing character of that profession in its certification program.

### **Professional Certification**

NCMA's first professional certification designation, the Certified Professional Contracts Manager (CPCM), was established in 1974. NCMA's leadership, understanding that NCMA needed to establish a method of recognizing professional achievement, worked closely with industry and government professionals to develop a comprehensive program. The CPCM represents a hallmark of professional achievement in the field of contract management.

The first CPCM exams were held across the country in 1976, with 23 successful candidates receiving the CPCM designation. Based on a set of stringent educational criteria and years of experience and service, some senior professionals were given a one-time opportunity to receive the CPCM designation without sitting for the examination.

The Certified Associate Contracts Manager (CACM) designation was added in 1980 to certify the mastery of the fundamentals of federal government contracting. In 2002, the CACM designation was renamed the Certified Federal Contracts Manager (CFCM) to more accurately describe its content and focus. All those who were awarded the CACM have been automatically redesignated as CFCMs.

Although the CPCM and CACM designations were originally developed as methods of recognizing professional achievement among peers, both have evolved to be much more. Today, NCMA's professional designations and the standards behind them are widely recognized by both government and industry as a consistent measure of the skills and experience needed by successful contract managers. Across the nation, employment requisitions and advertisements are stating, "NCMA designation preferred." Government agencies are recognizing the value of certification when making promotion decisions. NCMA's designations are seen as a standardized hallmark of excellence across the contract management community.

### **NCMA's Revised Certification Program**

At the start of the new millennium, NCMA began to seriously consider revising and revitalizing its certification programs. In July 2001, at the West Coast Conference, NCMA leadership voted in favor of a Contract Management Certification and Accreditation Board (CMCAB) to direct this effort. The CMCAB, which comprises nine contract management leaders from the upper echelons of government and industry, has been extremely active. NCMA is proud to announce a certification program that is presented in modules, delivered at Thomson Prometric centers around the country, and available on a continual basis, five days a week, at least 51 weeks of the year.

The certification program has three modules (see the NCMA Web site at [www.ncmahq.org](http://www.ncmahq.org)): (1) a general business knowledge module; (2) a federal knowledge module; and (3) a commercial knowledge module. Each module consists of approximately 100 multiple-choice questions. All candidates must take and pass the general business knowledge module, which provides a common thread among the certifications and with the business community. If candidates also take and pass the federal knowledge module, they will be awarded the CFCM designation. If candidates take and pass the commercial knowledge module, in addition to the general business knowledge module, they will be awarded the Certified Commercial Contracts Manager (CCCM) designation. The CPCM candidate must have earned the CFCM and CCCM designations as a prerequisite to application and must, as part of the application process, provide a self-authored statement of professional qualifications.

## **Eligibility Requirements**

Eligibility requirements for the CFCM and the CCCM are nearly identical. Candidates must have a degree at the bachelor's level from a regionally accredited college or university, with at least 24 hours of course work in business management topics; two years of contract management experience; and 120 hours of continuing education in the business management area. Candidates for the CFCM need to have at least 40 of those continuing education hours specific to federal contract management, while candidates for the CCCM need to have 40 hours specific to commercial contract management. Eligibility requirements for the CPCM include, in addition to the designations for CFCM and CCCM, a degree above the bachelor's level, five years of experience, and a self-authored statement of professional qualifications (500–800 words).

Waivers of these degree criteria are possible, if the candidate has at least 10 years of experience and can provide a letter of support from a supervisor.

Applications, as well as more information on the programs, can be found on the NCMA Web site at [www.ncmahq.org](http://www.ncmahq.org) or by calling NCMA at 800/344-8096.

## **Competencies for Contract Management**

A contract manager's competencies, or areas of knowledge, are enhanced through continuing education and developed through practice. A successful contract manager has knowledge in three areas: technical, conceptual, and human relations.

Technical knowledge is demonstrated through performance of tasks required for good contract management, such as preparing and issuing solicitations, preparing bids and proposals, preparing or analyzing terms and conditions, or analyzing procurement requirements and supplier capabilities. Training to acquire that knowledge can be earned through degree programs, certificate programs, professional continuing education, or specialized programs.

Conceptual knowledge relates to how the contract manager visualizes the contract's organization in terms of the agency's or company's goals. Contract managers should possess the ability to see the big picture, articulate global concerns, and act toward the attainment of organizational and personal success.

Human relations knowledge focuses on the interpersonal aspect of contract management. Effective contract management performance requires the cooperation of many others over whom the contract manager has little or no organizational control. Dealing with representatives from a diverse range of disciplines requires strong interpersonal and communication skills. Many contract managers consider human relationship management to be an important aspect for their careers.

NCMA, with the assistance of many practitioners at all levels of performance, has developed an inclusive term and a document that describes the sum knowledge required for the practitioner in the contract management and procurement profession. This document is called the Contract Management Body of Knowledge (CMBOK).

## **The Contract Management Body of Knowledge**

In 1996, the CMBOK was revised and reorganized to make it more relevant and useful to the contracting profession. In 2001, the CMCA appointed a CMBOK Committee. This committee was charged with investigating, and subsequently updating, the CMBOK. The primary function of this document is to serve as the foundation for NCMA's professional education and certification programs. The original committee was responsible for the publication of the first edition of the *Guide to the CMBOK*, another committee added commercial content, and ongoing committee activities continually monitor the profession for changes to this primary document.

The major improvements of the newly revised CMBOK include an updated lexicon of contracting terms for both federal and commercial areas. A series of charts patterned on a work breakdown structure (WBS) helps the reader understand the relationship among the elements of the CMBOK as well as the similarities and differences among competencies associated with federal and commercial contracts management. The dictionary complements the charts and defines the terms used. The definitions take the guesswork out of discerning the meaning ascribed to each term.

The CMBOK will always be a work in progress and consistent with NCMA's vision statement "...to be the preeminent source of development for professionals involved in contract management..." (for complete vision statement, see page 1).

In 1996, Frank Meneely defined the body of knowledge as,

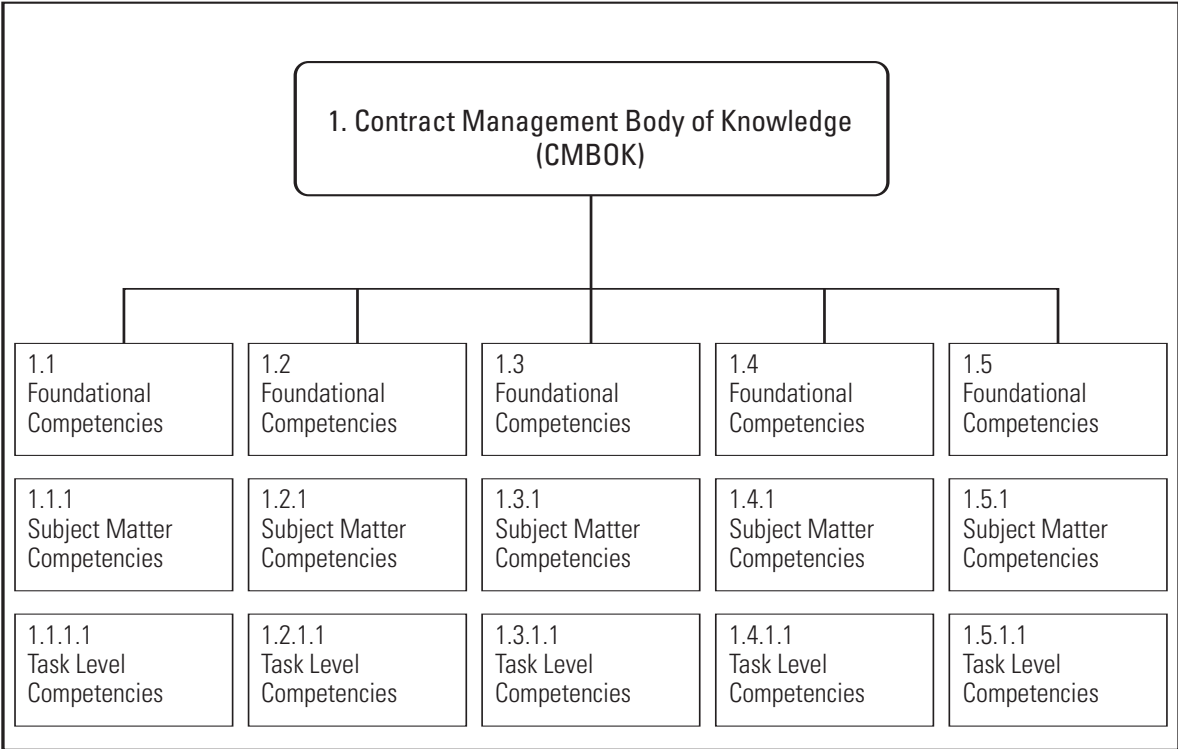
...a conceptual framework that is systematized about a central theme and formulated through the process of definition, classification, and analysis with reference to the discovery of general concepts, theories, laws and/or principles. The [body of knowledge] is the keystone of a profession and provides the baseline for the development of education and training materials, and certification requirements for its membership. It encompasses both theory and practice.

Building on Meneely's definition and borrowing from the Project Management Institute's definition of the project management body of knowledge, the CMBOK Committee coined the following encompassing definition:

The CMBOK is an inclusive term that describes the sum of knowledge for the profession of contract management. The complete body of knowledge concerning contract management resides both with the practitioners and those who, like academicians and governing bodies, apply and advance contract management. This body of knowledge includes both the generally accepted practices (such as business and finance) that are widely applied, as well as state of the art practices (such as e-commerce and catalog aggregation).

The CMBOK hierarchical structure can be demonstrated through the familiar WBS. The CMBOK is organized in three major components: foundational (or core) competencies, subject matter competencies, and job or task level skills (see Figure 1). The same base structure applies to both federal and commercial contract management.

Figure 1. CMBOK WBS Structure





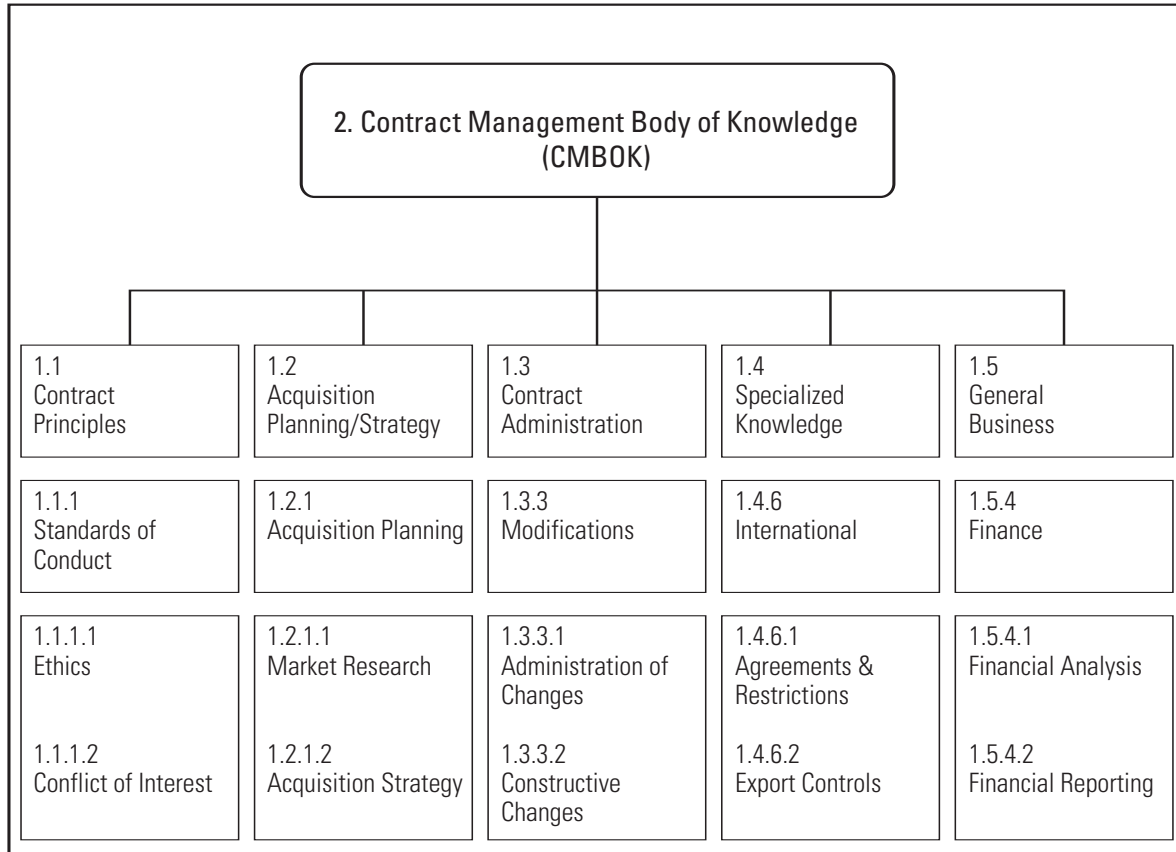
## **CMBOK Lexicon Entries**

The terms used to identify the CMBOK WBS are new to the contract management lexicon. Those responsible for the first edition of the *Guide to the CMBOK* proposed the following entry into the CMBOK WBS dictionary.

| <b>WBS Level</b> | <b>WBS Description</b>  |
|------------------|---|
| <b>1</b>         | <p><b>Contract Management Body of Knowledge (CMBOK)</b></p> <p>The CMBOK is an inclusive term that describes the sum of knowledge for the profession of contract management. The complete body of knowledge concerning contract management resides with both the practitioners and those who, like academicians and governing bodies, apply and advance contract management. This body of knowledge includes both the generally accepted practices (such as business and finance) that are widely applied as well as state-of-the-art practices (such as e-commerce and catalog aggregation). The Contract Management Body of Knowledge (CMBOK) and the Program Management Body of Knowledge (PMBOK<sup>®</sup>) are examples of body of knowledge documents.</p> |
| <b>1.1</b>       | <p><b>Contract Management Foundational (Core) Competencies</b></p> <p>Foundational competencies list broad knowledge areas, which are part of the full CMBOK. These five competency areas are contract principles, acquisition planning/strategy, contract administration, specialized knowledge, and general business (refer to CMBOK Figure 5).</p>   |
| <b>1.1.1</b>     | <p><b>Contract Management Subject Matter Competencies</b></p> <p>Subject matter competencies are a subset of the foundational competencies and the specific knowledge areas, which are part of the full CMBOK that contract managers need to know to be effective and do their job well. Subject matter competencies include specific knowledge areas such as 1.3.3 Modifications, 1.4.6 International, or 1.5.1 Management (see CMBOK charts for more details).</p>  |
| <b>1.1.1.1</b>   | <p><b>Task Level Competencies</b></p> <p>Task level competencies list a subset of the subject matter competencies as well as the specific knowledge areas within the subject matter competencies that contract managers need to know to effectively do their job. Task level competencies include specific subject matter, such as 1.3.3.1 Administration of Changes and 1.3.3.2 Constructive Changes.</p>  |

Figure 2 below provides an abbreviated example of the hierarchical structure of the CMBOK. It includes sections of the Body of Knowledge (1996) that illustrate the connection among the competency levels.

**Figure 2. Example of the CMBOK**



### **Attributes Associated with the CMBOK Final Product**

The CMBOK consists of two major parts. As illustrated in Figure 3, the first part of the CMBOK is the WBS. The second part of the CMBOK is a body of written works referred to as the guides to the CMBOK, of which this work is one.

The guides to the CMBOK are not a part of the CMBOK but rather illustrate the various sections of the CMBOK. This guide, for example, includes outlines that are normally found in certification program preparatory guides. Additionally, the guides may include written works usually found in training programs, association seminars, and magazine articles.

**Figure 3. CMBOK Major Parts**

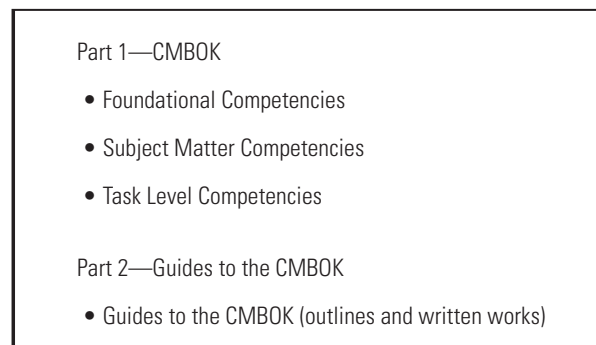
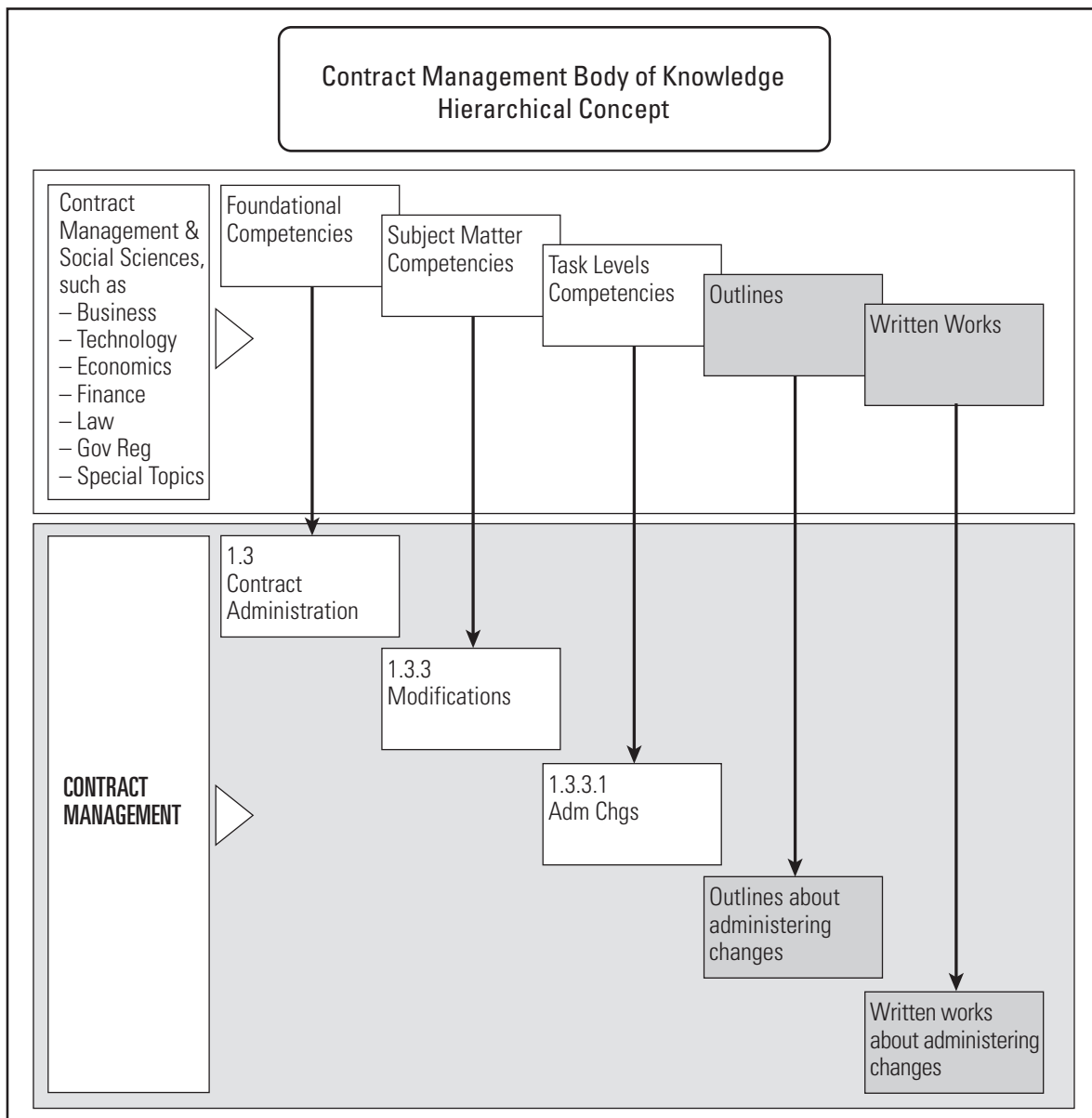


Figure 4 provides a structured concept for visualizing the CMBOK configuration. The hierarchical concept is interdisciplinary and draws concepts and information from the social sciences, such as management, marketing, and finance. It contains special topics, such as socioeconomic objectives and automated procurement, and special considerations, such as those in service contracting.

An examination of one of the elements (contract management) in Figure 4 shows several subelements, including (1) foundational (core) competencies, (2) subject matter competencies, (3) task level competencies, (4) CMBOK outlines, and (5) CMBOK written works.

**Figure 4. CMBOK Hierarchical Concept**

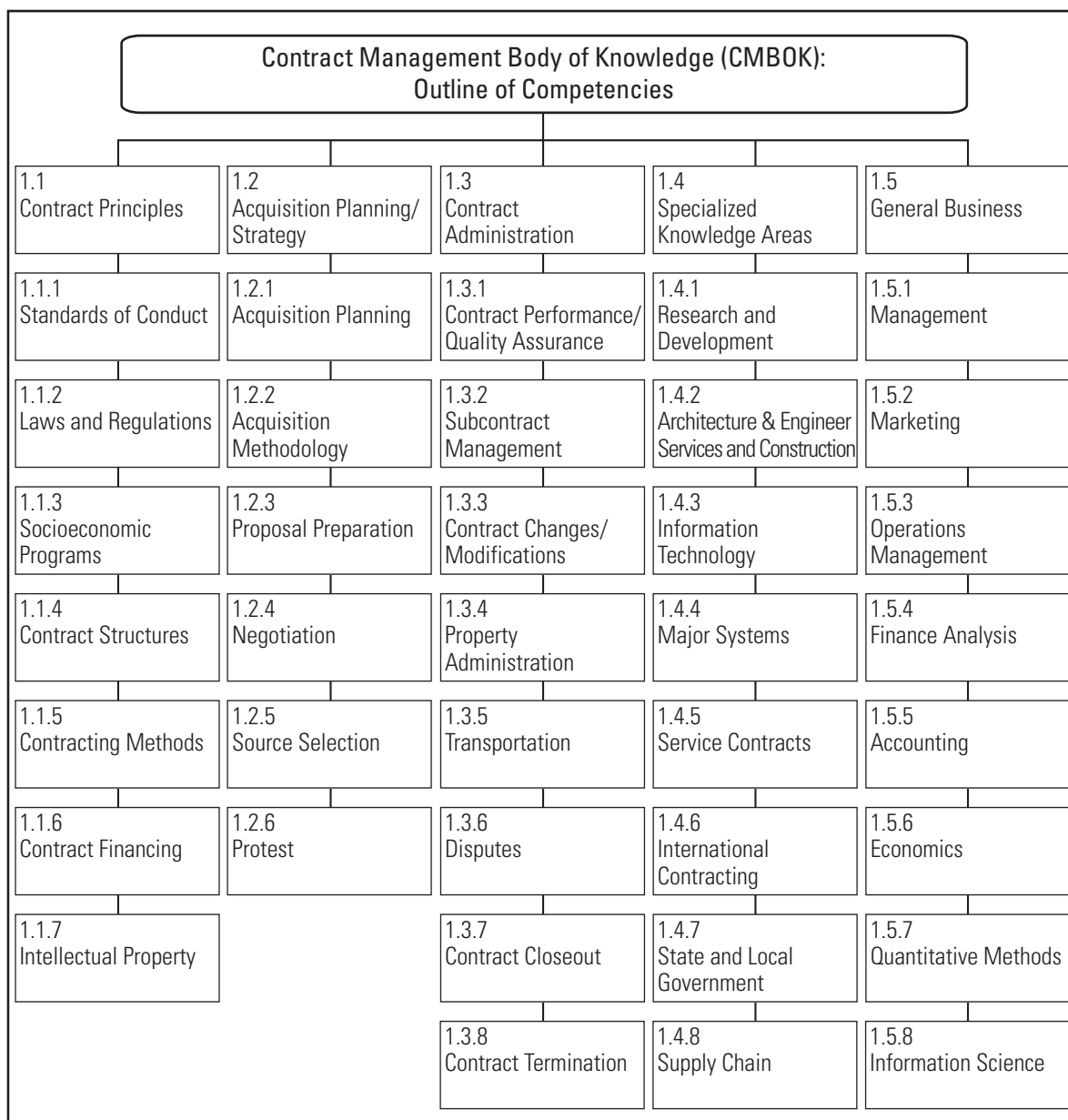


# Part II

## Contract Management Body of Knowledge (CMBOK) Competencies

This page presents a graphic picture of the CMBOK (Figure 5). This section of the guide concentrates on the specific contract manager competencies for practice in the federal government environment or the commercial environment. NCMA's revised certification program comprises three examination modules that address both the commonalities (general business knowledge module) and the differences between federal (federal knowledge module) and commercial (commercial knowledge module) practice.

**Figure 5. Contract Management Body of Knowledge (CMBOK):  
Outline of Competencies**



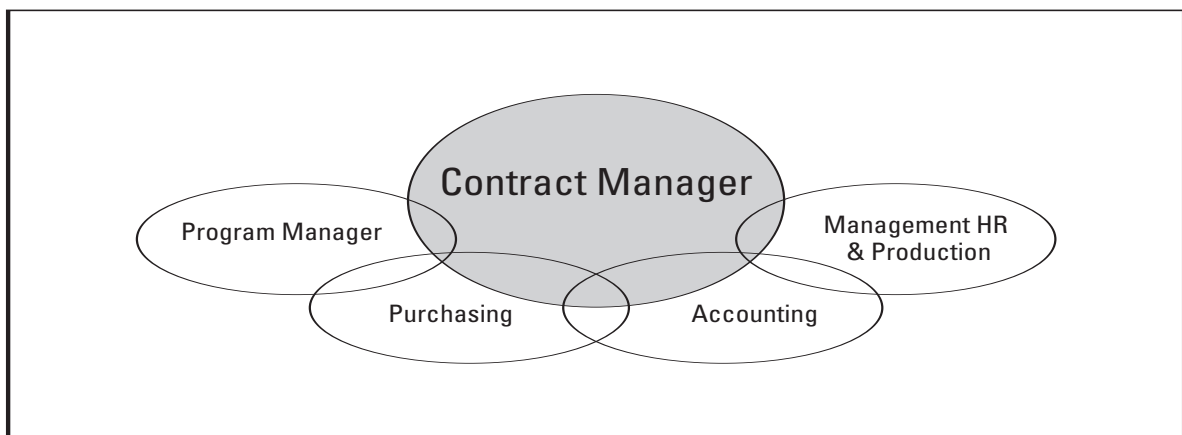
### Contract Manager Competencies Assessment for the CMBOK

The full CMBOK includes knowledge of generally accepted practices, which are widely applied to the practice of contract management. It also includes the knowledge of more innovative and advanced practices, which may be of a more limited use.

This knowledge is obtained, in part, by asking professionals in the contracting community—both public and private—and practitioners in the field what competencies and knowledge contract professionals need to do their jobs well.

Knowledge also is gained through a critical review of the myriad activities performed by contract managers. The diagram below depicts the interrelationships and activities performed daily by contract managers in a corporation with more than 300 people (see Figure 6). A contract manager's activities include coordination with those personnel who think they need an item or service and continue through the development of a contract, its administration, and its ultimate successful ending and closeout. Along the way, the contract manager interacts with those who have the desire for the item or service, those who know and can describe the item or service, those who are the keepers of the finances, and all the people involved, as well as all the people who are in charge of those involved—the contract manager affects a wide circle.

**Figure 6. Interrelationships of Contract Managers**



## The CMBOK Lexicon

The CMBOK lexicon contains an explanation of the terms that are used in the charts in Part II. Multiple sources were consulted. However, where applicable, the terms were taken from the operational definitions published in NCMA's *Desktop Guide to Basic Contracting Terms*, 5th ed. (1999). These definitions reflect the collective opinion of the contract management community. In some instances, the definitions are excerpts with examples added for clarification. The purpose is to clearly convey the intended content of each CMBOK element. Definitions have been taken from the *Federal Acquisition Regulation (FAR)*, the *Uniform Commercial Code (UCC)* dictionaries, Web sites, official documents (Office of Management and Budget [OMB] circulars and legal casework, for example), textbooks, and accepted contract management practice.

## The CMBOK Lexicon for Federal Contract Managers

The following definitions are mainly relevant to general and federal practice. While the general areas (1.5 General Business) apply to both federal and commercial practice, there are specific definitions for the commercial area, which are included on pages 37–53. Where definitions included in the commercial lexicon are different, the corresponding commercial definition is noted as “see also.”

1. **NCMA CMBOK**—Definitive descriptions of the elements making up the body of professional knowledge that applies to contract management.
- 1.1 **Contract Principles**—Fundamentals of acquisition that all contracting professionals must comprehend. These fundamentals often are a part of a larger contract framework; see Part IV for examples.
- 1.1.1 **Standards of Conduct**—The ethical conduct of personnel involved in the acquisition of goods and services. Within the federal government, business shall be conducted in a manner above reproach and, except as authorized by law or regulation, with complete impartiality and without preferential treatment.
- 1.1.1.1 **Ethics**—Of or relating to moral action, conduct, motive, or character, as ethical emotion; professionally right or benefiting; conforming to professional standards of conduct (see also 1.1.1.1, Ethics, page 37).
- 1.1.1.2 **Conflict of Interest**—Term used in connection with public officials and fiduciaries and their relationships to matters of private interest or gain to them. Ethical problems connected therewith are covered by statutes in most jurisdictions and by federal statutes on the federal level. A conflict of interest arises when an employee's personal or financial interest conflicts or appears to conflict with his or her official responsibility (see also 1.1.1.2, Conflict of Interest, page 37).
- 1.1.1.3 **Improper Practices**—Broad range of activities forbidden or limited by the FAR with regard to the award and performance of government contracts.
- 1.1.1.6 **Delegation of Authority**—The conferring of authority, from one government agency or representative to another, to accomplish contract administrative tasks. Such authority may be shared or recalled.
- 1.1.1.7 **Apparent Authority**—The right by an agent for a principal to exercise power where the principal knowingly permits the agent to exercise authority, though not actually granted. Differs from actual, implied, or expressed authority (see also 1.1.2.2 below, Agency).

- 1.1.1.8 **Fraud**—Acts or attempts to defraud the government or its agents; acts violating the False Claims Act or the Anti-Kickback Act (see also 1.1.1.8, p. 43)
- 1.1.2 **Laws and Regulations**—The statutes and regulations that provide the legal and regulatory framework for the acquisition of goods and services.
  - 1.1.2.1 **Contract Formation**—The elements of offer, acceptance, mutuality of consideration, competent parties, legal subject matter, and mutuality of agreement.
  - 1.1.2.2 **Agency**—A relationship whereby the principal authorizes another (the agent) to act for and on behalf of the principal and to bind the principal in contract.
  - 1.1.2.3 **Uniform Commercial Code**—Uniform law governing commercial transactions, developed by the National Conference of Commissioners on Uniform State Laws and the American Law Institute, which has been adopted by all states in the United States except Louisiana and is sometimes used to aid in the interpretation and enforcement of government subcontracts (see also 1.1.2.3, Uniform Commercial Code, page 38).
  - 1.1.2.4 **Federal Statutes**—Applicable laws enacted by the legislative branch and signed by the president that affect acquisition. Examples include the Armed Services Procurement Act (1947), the Federal Property and Administrative Services Act (1949), the Competition in Contracting Act (1984), and the Federal Acquisition Streamlining Act (1994).
  - 1.1.2.5 **Federal Regulations**—Applicable directives and instructions issued by the several departments and agencies that establish and implement acquisition policies. Examples include the FAR, agency FAR supplements, and Office of Management and Budget (OMB) circulars.
  - 1.1.2.6 **Other Policies and Guidelines**—Directives and instructions issued by entities other than those listed in 1.1.2.5; for example, state and local government policy, guidelines, and regulations.
- 1.1.3 **Socioeconomic Programs**—Programs designed to benefit particular groups. They represent a multitude of program interests and objectives unrelated to procurement objectives. Some examples of these are preferences for small business and for American products, required sources for specific items, and minimum labor pay levels mandated for contractors (see also 1.1.3, Socioeconomic Programs, page 39).
  - 1.1.3.1 **Labor Surplus Area**—A geographical area identified by the Department of Labor as an area of concentrated unemployment or underemployment or an area of labor surplus.
  - 1.1.3.2 **Environmental Issues**—Policies and procedures supporting the government’s program for ensuring a drug-free workplace and of protecting and improving the quality of the environment through pollution control, energy conservation, identification of hazardous material, and use of recovered materials.
  - 1.1.3.3 **Labor Laws**—Policies and procedures for implementing labor laws, such as the Davis-Bacon Act, Contract Work Hours and Safety Standards Act, and the Service Contract Act (see also 1.1.3.3, Labor Laws, page 39).



- 1.1.3.4 **Diversity**—Programs designed to encourage a diverse workforce or education and training group; such as programs that prohibit employment or workplace discrimination based on race, color, religion, sex, or national origin, age, or disability (see also 1.1.3.4, Diversity, page 39).
- 1.1.3.5 **Small Business**—A small business is one that is independently owned and operated, and is not dominant in its field; a business concern that meets government size standards for its particular industry type.
- 1.1.3.6 **Small and Disadvantaged Business Concerns**—A small business that is owned (at least 51 percent) by members of socially and economically disadvantaged groups (i.e., groups that have been subjected to racial or ethnic prejudice or cultural bias).
- 1.1.3.7 **Woman-Owned, Native-American-Owned, Veteran-Owned Business**—A firm that is at least 51 percent owned by a woman, Native American, or veteran. In the case of a publicly owned business, at least 51 percent of the stock must be controlled by a woman, Native American, or veteran, and its management and daily business must be controlled by one or more women, Native Americans, or veterans.
- 1.1.3.8 **HubZone**—A historically underutilized business zone or area that is located within one or more qualified census tracts, qualified nonmetropolitan counties, or lands within the boundaries of an Indian reservation. “Indian” means any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the federal government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any “Native” as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).
- 1.1.4 **Contract Structures**—Specific pricing arrangements employed for the performance of work under contract.
  - 1.1.4.1 **Fixed Price**—A type (family) of contracts providing for a firm pricing arrangement established by the parties at the time of contracting. This family of contracts includes firm fixed price, fixed price with economic price adjustment, fixed price incentive, fixed price redetermination (prospective and retroactive), and firm fixed price level of effort.
    - 1.1.4.1.1 **Firm fixed price contract**—Provides for a price that is not subject to any adjustment on the basis of the contractor’s cost experience in performing the contract. This contract type places on the contractor maximum risk and full responsibility for all costs and resulting profit or loss. It provides maximum incentives for the contractor to control costs and perform effectively and imposes a minimum administrative burden on the contracting parties.

- 1.1.4.1.2 **Fixed price contract with economic price adjustment**—Provides for upward and downward revision of the stated contract price on the occurrence of specified contingencies. There are three general types of economic price adjustments: (1) Adjustments based on established prices where price adjustments are based on increases or decreases from an agreed-on level in published or otherwise established prices of specific items or the contract end items. (2) Adjustments based on actual costs of labor or material where price adjustments are based on increases or decreases in specified costs of labor or material that the contractor actually experiences during contract performance. (3) Adjustments based on cost indexes of labor or material where price adjustments are based on increases or decreases in labor or material cost standards or indexes that are specifically identified in the contract.
- 1.1.4.1.3 **Fixed price incentive contract**—Provides for adjusting profit and establishing the final contract price by a formula based on the relationship of final negotiated total cost to total target cost. Fixed price incentive contracts are covered in FAR 16.4, Incentive Contracts. See FAR 16.403 for more complete descriptions, application, and limitations for these contracts. Prescribed clauses are found at FAR 16.406.
- 1.1.4.1.4 **Fixed price contract with prospective price redetermination**—Provides for (1) a firm fixed price for an initial period of contract deliveries or performance and (2) prospective redetermination, at a stated time or times during performance of the price for subsequent periods of performance.
- 1.1.4.1.5 **Fixed price contract with retroactive price redetermination**—Provides for (1) a fixed ceiling price and (2) retroactive price redetermination within the ceiling after completion of the contract.
- 1.1.4.1.6 **Firm fixed price, level-of-effort term contract**—Requires the contractor to provide a specified level of effort, over a stated period of time, on work that can be stated only in general terms; and requires the government to pay the contractor a fixed dollar amount.
- 1.1.4.2 **Cost Reimbursement**—A form of pricing arrangement that provides for payment of allowable, allocable, and reasonable costs incurred in the performance of a contract to the extent that such costs are prescribed or permitted by the contract. This family of contracts includes cost plus award fee (CPAF), cost plus fixed fee (CPFF), cost plus incentive fee, and cost-sharing contracts.
  - 1.1.4.2.1 **Cost contract**—Cost-reimbursement contract in which the contractor receives no fee.
  - 1.1.4.2.2 **Cost-sharing contract**—Cost-reimbursement contract in which the contractor receives no fee and is reimbursed only for an agreed-on portion of its allowable costs.
  - 1.1.4.2.3 **Cost plus incentive fee contract**—Cost-reimbursement contract that provides for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs.
  - 1.1.4.2.4 **CPAF contract**—Cost-reimbursement contract that provides for a fee consisting of (1) a base amount (which may be zero) fixed at inception of the contract and (2) an award amount, based on a judgmental evaluation by the government, sufficient to provide motivation for excellence in contract performance.

**1.1.4.2.5 CPFF contract**—Cost-reimbursement contract that provides for payment to the contractor of a negotiated fee that is fixed at the inception of the contract. The fixed fee does not vary with actual cost but may be adjusted as a result of changes in the work to be performed under the contract. This contract type permits contracting for efforts that might otherwise present too great a risk to contractors, but it provides the contractor only a minimum incentive to control costs.

### 1.1.4.3 Agreements

**1.1.4.3.1 Basic agreement**—A written instrument of understanding, negotiated between an agency or contracting activity and a contractor, that contains contract clauses applying to future contracts between the parties during its term and contemplates separate future contracts that will incorporate, by reference or attachment, the required and applicable clauses agreed on in the basic agreement. A basic agreement is not a contract.

**1.1.4.3.2 Basic ordering agreement**—A written instrument of understanding, negotiated between an agency, contracting activity, or contracting office and a contractor, that contains terms and clauses applying to future contracts (orders) between the parties during its term; a description, as specific as practicable, of supplies or services to be provided; and methods for pricing, issuing, and delivering future orders under the basic ordering agreement. A basic ordering agreement is not a contract.

**1.1.4.4 Other Types**—Miscellaneous contracts that use a form of pricing arrangement (such as time-and-materials, labor-hour, and letter contracts) or are described by the terms governing ordering (indefinite delivery contracts).

**1.1.4.4.1 Time-and-materials contract**—Provides for acquiring supplies or services on the basis of direct labor hours at specified fixed hourly rates that include wages, overhead, general and administrative expenses, profit, and materials at cost, including, if appropriate, material handling costs as part of material costs.

**1.1.4.4.2 Labor-hour contract**—Variation of the time-and-materials contract, differing only in that materials are not supplied by the contractor.

**1.1.4.4.3 Letter contract**—A written preliminary contractual instrument that authorizes the contractor to begin immediately manufacturing supplies or performing services.

**1.1.4.5 Indefinite Delivery/Indefinite Quantity Contract (IDIQ)/Governmentwide Agency Contract (GWAC)**—IDIQ contracts provide for an indefinite quantity within stated limits of supplies or services to be furnished within a fixed period with deliveries or performance to be scheduled by placing orders with the contractor. Examples of these contracts are delivery order, task order, definite quantity, requirements, and indefinite quantity. GWACs are governmentwide acquisition contracts available to multiple buyers.

**1.1.4.5.1 Delivery order contract**—Contract for supplies that does not procure or specify a firm quantity of supplies (other than a minimum or maximum quantity) and that provides for the issuance of orders for the delivery of supplies during the period of the contract.

- 1.1.4.5.2 **Task order contract**—A services contract that does not procure or specify a firm quantity of services (other than a minimum or maximum quantity) and that provides for the issuance of orders for the performance of tasks during the period of the contract.
  - 1.1.4.5.3 **Definite quantity contract**—Provides for delivery of a definite quantity of specific supplies or services for a fixed period, with deliveries or performance to be scheduled at designated locations upon order.
  - 1.1.4.5.4 **Requirements contract**—Provides for filling all actual purchase requirements of designated government activities for supplies or services during a specified contract period, with deliveries or performance to be scheduled by placing orders with the contractor.
  - 1.1.4.5.5 **Indefinite quantity contract**—Provides for an indefinite quantity, within stated limits, of supplies or services during a fixed period. The government places orders for individual requirements. Quantity limits may be stated as number of units or as dollar values.
- 1.1.4.6 **Incentive Contracts**—Incentive contracts are appropriate when a firm fixed price contract is not appropriate and the required supplies or services can be acquired at lower costs and, in certain instances, with improved delivery or technical performance, by relating the amount of profit or fee payable under the contract to the contractor's performance. Incentive contracts are designed to obtain specific acquisition objectives by (1) establishing reasonable and attainable targets that are clearly communicated to the contractor and (2) including appropriate incentive arrangements designed to motivate contractor efforts that might not otherwise be emphasized and discourage contractor inefficiency and waste.
- 1.1.4.6.1 **Cost incentives**—Most incentive contracts include only cost incentives, which take the form of a profit or fee adjustment formula and are intended to motivate the contractor to effectively manage costs. No incentive contract may provide for other incentives without also providing a cost incentive (or constraint). Except for award fee contracts (see 16.404 and 16.405-2), incentive contracts include a target cost, a target profit or fee, and a profit or fee adjustment formula. These targets and the formula provide that (within the constraints of a price ceiling or minimum and maximum fee) (1) the actual cost that meets the target will result in the target profit or fee; (2) the actual cost that exceeds the target will result in downward adjustment of target profit or fee; and (3) the actual cost that is below the target will result in upward adjustment of target profit or fee.
  - 1.1.4.6.2 **Performance incentives**—May be considered in connection with specific product characteristics (e.g., a missile range, an aircraft speed, an engine thrust, or a vehicle maneuverability) or other specific elements of the contractor's performance. These incentives should be designed to relate profit or fee to results achieved by the contractor compared with specified targets.
  - 1.1.4.6.3 **Delivery incentives**—Should be considered when improvement from a required delivery schedule is a significant government objective. It is important to determine the government's primary objectives in a given contract (e.g., earliest possible delivery or earliest quantity production).

- 1.1.4.6.4 **Multiple-incentive contracts**—Such contracts should motivate the contractor to strive for outstanding results in all incentive areas and compel trade-off decisions among the incentive areas consistent with the government’s overall objectives for the acquisition.
- 1.1.4.6.5 **Fixed price incentive contract**—Provides for adjusting profit and establishing the final contract price by application of a formula based on the relationship of total final negotiated cost to total target cost. The final price is subject to a price ceiling, negotiated at the outset. The two forms of fixed price incentive contracts—firm target and successive target contracts—are discussed below.
- 1.1.4.6.6 **Fixed price incentive (firm target) contract**—Specifies a target cost, a target profit, a price ceiling (but not a profit ceiling or floor), and a profit adjustment formula. These elements are all negotiated at the outset.
- 1.1.4.6.7 **Fixed price incentive (successive targets) contract**—Specifies the following elements, all of which are negotiated at the outset: an initial target cost, an initial target profit, and an initial profit adjustment formula. These targets and formula are used to establish (1) the firm target profit, including a ceiling and floor for the firm target profit; (2) the production point at which the firm target cost and firm target profit will be negotiated (usually before delivery or shop completion of the first item); and (3) a ceiling price that is the maximum that may be paid to the contractor, except for any adjustment under other contract clauses providing for equitable adjustment or other revision of the contract price under stated circumstances.
- 1.1.4.6.8 **Fixed price contract with award fees**—Used when the government wishes to motivate a contractor and other incentives cannot be used because contractor performance cannot be measured objectively. Such contracts shall establish a fixed price (including normal profit) for the effort that will be paid for satisfactory contract performance. Such contracts shall establish that the award fee earned (if any) will be paid in addition to that fixed price and provide for periodic evaluation of the contractor’s performance against an award fee plan.
- 1.1.4.6.9 **Cost-reimbursement incentive contract**—The requirements applicable to all cost-reimbursement contracts remain the same.
- 1.1.4.6.10 **Cost plus incentive fee contract**—A cost-reimbursement contract that provides for the initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs.
- 1.1.4.6.11 **CPAF contract**—Provides for a fee consisting of (1) a base amount fixed at inception of the contract and (2) an award amount that the contractor may earn in whole or in part during performance and that is sufficient to provide motivation for excellence in such areas as quality, timeliness, technical ingenuity, and cost-effective management.
- 1.1.4.7 **Broad Agency Announcement (BAA)**—A general announcement of an agency’s research interests, including criteria for selecting proposals and soliciting the participation of all offerors capable of satisfying the agency’s needs (see also 1.2.2.5, Broad Agency Announcement, page 24).

- 1.1.5 **Contracting Methods**—The process employed for soliciting offers, evaluating offers, and awarding a contract.
- 1.1.5.1 **Sealed Bidding**—A method involving the unrestricted solicitation of bids, a public opening, and award of a contract to the lowest responsive and responsible bidder.
- 1.1.5.2 **Two-Step Sealed Bidding**—A combination of competitive procedures designed to obtain the benefits of sealed bidding when adequate specifications are not available. Step One consists of the request for the submission of technical proposals, evaluation, and discussion without pricing. Step Two involves the submission of sealed-price bids by those who submitted acceptable technical proposals in Step One.
- 1.1.5.3 **Negotiations**—A method of contracting that uses either competitive or other-than-competitive proposals and (usually) discussions. It is a flexible process that includes the receipt of proposals from offerors, permits bargaining, and usually affords offerors an opportunity to revise their offers before award of a contract.
- 1.1.5.4 **Simplified Acquisitions**—Methods for entering into contracts without elaborate and formal solicitation techniques (i.e., invitation for bids [IFB] and request for proposals [RFP]). Restricted to purchases under a low dollar threshold.
- 1.1.5.5 **Federal Supply Schedules**—A program directed and managed by the General Services Administration that provides federal agencies with a simplified process for obtaining commonly used supplies and services at prices associated with volume buying.
- 1.1.5.6 **Electronic Commerce**—A paperless process, including electronic mail, electronic bulletin boards, electronic funds transfer, electronic data interchange, and similar techniques for accomplishing business transactions.
- 1.1.5.7 **Modular Contracts**—Use of one or more contracts to acquire information technology (IT) systems in successive, interoperable increments.
- 1.1.5.8 **Auctions**—Sale in which property, services, or merchandise are sold to the highest bidder. Reverse auctions are purchases in which property, services, or merchandise are purchased from the lowest bidder. In these two applications of bidding the buy-side (reverse auction) supports the procurement function while the sell-side supports asset management and surplus disposition.
- 1.1.5.9 **Request for Information (RFI)**—Tool used for gathering information from independent vendors for the purpose of determining availability of products and services and gathering market information on capabilities to perform.
- 1.1.5.10 **Unsolicited Proposal**—A research or developmental proposal that is made by a prospective contractor without prior formal or informal solicitation from a purchasing activity.
- 1.1.5.11 **Alpha Contract**—Award made via an acquisition process adopted to reduce the acquisition cycle time by replacing a serial process with a concurrent one, through government/contractor teaming, without compromising the standard of a fair and reasonable price.

- 1.1.5.12 Innovative Contracting Methods**—Contracting methods focusing on an alternative aspect of cost-effective contract management that ensure total fulfillment of the contract goals. Examples of such innovative contracting methods are warranty flexibility, multiparameter, and best-value contracting. Warranty contracting includes an extended warranty that places responsibility for product performance on the contractor, generating a longer lasting product and lower overall maintenance costs. In multiparameter contracting, agencies determine contract winners based on the lowest combination of cost, time, and other parameters. Best-value contracting focuses on such factors as technical excellence, management capability, past performance, and personnel qualifications and makes trade-offs for lowest price.
- 1.1.6 Contract Financing**—Obtaining the funds necessary for performing the contract, including payment methods, loan guarantees, advanced payments, progress payments, and contract funding.
- 1.1.6.1 Generally Accepted Accounting Principles (GAAP)**—A term encompassing conventions, rules, and procedures of accounting that are “generally accepted” and have “substantial authoritative support.” The GAAP have been developed by agreement on the basis of experience, reason, custom, usage, and, to a certain extent, practical necessity, rather than being derived from a formal set of theories.
- 1.1.6.2 Cost Principles**—The regulations that establish rules and policies relating to the general treatment of costs in government contracting, particularly the allowability of costs.
- 1.1.6.3 Cost Accounting Standards (CAS)**—Federal standards designed to provide consistency and coherency in defense and other government contract accounting.
- 1.1.6.4 Payments**—The amount payable under the contract supporting data required to be submitted with invoices, and other payment terms such as time for payment and retention.
- 1.1.6.5 Audit**—The systematic examination of records and documents and/or the securing of other evidence by confirmation, physical inspection, or otherwise for one or more of the following purposes: determining the propriety or legality of proposed or completed transactions; ascertaining whether all transactions have been recorded and are reflected accurately in accounts; determining the existence of recorded assets and the inclusiveness of recorded liabilities; determining the accuracy of financial or statistical statements or reports and the fairness of the facts they represent; determining the degree of compliance with established policies and procedures in terms of financial transactions and business management; and appraising an account system and making recommendations concerning it.
- 1.1.7 Intellectual Property**—The kind of property that results from the fruits of mental labor. Intellectual property rights include any or all of the following: patent, trademark, copyright, trade secret, trade name, service mark, and the like (see also 1.1.7, Intellectual Property, page 41).
- 1.1.7.1 Patent**—Government grant of exclusive rights to an inventor that prohibits others from making, using, or selling an invention.
- 1.1.7.2 Data**—Recorded information, regardless of form or the media on which it may be recorded. Rights to use technical data developed by the contractor vary depending on the source of funds used to develop the item, component, process, software, or software documentation.



- 1.1.7.3 **Copyright**—Royalty-free, nonexclusive, and irrevocable license to reproduce, translate, publish, use, and dispose of written or recorded material and to authorize others to do so.
- 1.1.7.4 **Licensing**—The sale of a license permitting the use of patents, trademarks, or other technology to another firm. A license covering a patent, technical or proprietary data, technical assistance, know-how, or any combination of these—granted by a U.S. firm to a foreign firm or government—to produce, coproduce, or sell a defense article or service within a given sales territory. An exclusive license grants this right without competition from any other licensees or from the licensor. For a nonexclusive license, competition may be permitted with other licensees and/or the licensor. Licensing involves the many procedures administrative agencies perform in conjunction with issuance of various types of licenses.
- 1.1.7.5 **Royalties**—Any costs or charges in the nature of royalties, license fees, patent or license amortization costs, or the like that are paid for the use of or for rights in patents and patent applications in connection with performing a contract or subcontract.
- 1.1.7.6 **Trademark**—Distinctive mark of authenticity. Words, symbols, devices, or designs affixed to or placed on an article or its container to identify an article offered for sale. Also includes “service marks,” which designate particular manners or modes of service delivery protected as intellectual property.
- 1.1.7.7 **Data Rights**—Rights of ownership of data under any contract. In any contract that may involve the production of scientific or technical data, the rights to those data must be clearly ascribed. Generally, a rights in data clause will protect the government’s right to use and distribute—without limitation, free from payment of royalties, and with immunity against lawsuits for copyright infringement or misuse of data—any data produced under a contract funded by the government.
- 1.2 **Acquisition Planning/Strategy**—Process through which all activities and events are planned to award a contract.
  - 1.2.1 **Acquisition Planning**—The process by which efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner at a reasonable cost. It includes developing the overall strategy for managing the acquisition (see also 1.2.1, Acquisition Planning, page 42).
    - 1.2.1.1 **Market Research**—The process used for collecting and analyzing information about the entire market available to satisfy an agency’s need for the minimum information required to establish the most suitable approach to acquiring, distributing, and supporting supplies and services (see also 1.2.1.1, Market Research, page 42).
    - 1.2.1.2 **Acquisition Strategy**—The conceptual framework for conducting systems acquisition. It encompasses the broad concepts and objectives that direct and control the overall development, production, and deployment of a system.
    - 1.2.1.3 **Acquisition Plan**—A plan for an acquisition that serves as the basis for initiating the individual contracting actions necessary to acquire a system or support a program.
    - 1.2.1.4 **Source Selection Plan**—The document that describes the selection criteria, process, and organization to be used in evaluating proposals for competitively awarded contracts.



- 1.2.1.5 **Statement of Work (SOW)**—That portion of a contract describing the actual work to be done by means of specifications or other minimum requirements, quantities, performance or delivery date, and a statement of the requisite quality. SOW defines the scope of the overall contract in the case of task order contracts.
- 1.2.1.6 **Specifications**—A description of the technical requirements for a material, product, or service that includes the criteria for determining whether the requirements have been met. As used in the law relating to patents, manufacturing, and contracting contracts, a particular order or detailed statement, account description, or listing of various events.
- 1.2.1.7 **Responsibilities**—Contracting managers are responsible for ensuring performance of all necessary actions for effective contracting, ensuring compliance with the terms of the contract, and safeguarding the interests of the government.
- 1.2.1.8 **Integrated Project/Product Team (IPT)**—Team composed of representatives from appropriate functional disciplines working together to build successful programs, identify and resolve issues, and make sound and timely recommendations to facilitate decision making. There are three types of IPTs: Overarching IPTs (OIPs), which focus on strategic guidance, program assessment, and issue resolution; Working-level IPTs (WIPTs), which identify and resolve program issues, determine program status, and seek opportunities for acquisition reform; and Program-level IPTs (PIPTs), which focus on program execution and may include representatives from both government and, after contract award, industry.
- 1.2.1.9 **Preaward Surveys**—An evaluation of a prospective contractor’s ability to perform a specific contract, performed by the contract administration office or the purchasing office, with assistance from an audit organization, at the request of either office. The evaluation addresses the physical, technical, managerial, and financial capability of the prospective contractor. The adequacy of the contractor’s systems and procedures, and past performance record, are also addressed.
- 1.2.2 **Acquisition Methodology**—A means of requesting or inviting offerors to submit offers, generally by issuance of a solicitation. Solicitations basically consist of (1) a draft contract, (2) provisions for preparing and submitting offers, and (3) evaluation factors (see also 1.2.2, Acquisition Methodology, page 42).
  - 1.2.2.1 **Invitation for Bids (IFB)**—Solicitation used in the sealed-bid method of procurement.
  - 1.2.2.2 **Request for Technical Proposal (RFTP)**—A solicitation document used in two-step sealed bidding. Normally in letter form, RFTPs ask only for technical information; price and cost breakdowns are forbidden (see also 1.2.2.2, Request for Technical Proposal, page 42).
  - 1.2.2.3 **Request for Proposals (RFP)**—Solicitation document used in other-than-sealed-bid procurements. RFPs are used in negotiated procurements to communicate government requirements to prospective contractors and to solicit proposals from them (see also 1.2.2.3, Request for Proposals, page 43).
  - 1.2.2.4 **Request for Quotations (RFQ)**—Solicitation document used in other-than-sealed-bids procurements. Because an RFQ is merely a request for information, quotes submitted in response to it are not offers and consequently may not be accepted by the government to form a binding contract (see also 1.2.2.4, Request for Quotations, page 43).

- 1.2.2.5 **Broad Agency Announcement (BAA)**—An announcement by a procuring agency of areas of research interest, including criteria for selecting proposals and soliciting the participation of all offerors capable of satisfying the agency’s needs (see also 1.1.4.7, Broad Agency Announcement, page 19).
- 1.2.2.6 **Small Business Innovation Research (SBIR)**—The SBIR Program is a highly competitive three-phase award system that provides qualified small business concerns with opportunities to propose innovative ideas that meet the specific research and development (R&D) needs of the federal government. Federal agencies that have R&D budgets in excess of \$100M must set aside a fixed percentage of their budgets strictly for small businesses.
- 1.2.3 **Proposal Preparation**—Activities and events required to submit an offer or quotation, usually in response to a customer request.
  - 1.2.3.1 **Bid or No-Bid Decision**—Determination made by seller’s management whether or not to submit an offer, usually in response to a customer request.
  - 1.2.3.2 **Technical/Management Proposal**—The part of the offer that describes the seller’s approach to meeting the buyer’s requirement.
  - 1.2.3.3 **Cost Proposal**—The instrument required of an offeror for the submission or identification of cost or pricing data in which the offeror submits to the buyer a summary of estimated (or incurred) costs, suitable for detailed review and analysis.
  - 1.2.3.4 **Unsolicited Proposal**—A research or development proposal that is made by a prospective contractor without prior formal or informal solicitation from a purchasing activity (see also 1.2.3.4, Unsolicited Proposal, page 43).
  - 1.2.3.5 **Teaming**—Agreement among two or more prospective offerors to participate jointly in a business venture (see also 1.2.3.5, Teaming, page 43).
  - 1.2.3.6 **Past Performance** (see 1.2.3.6, p. 43).
  - 1.2.3.7 **Evaluation Factors**—Factors that are tailored to each acquisition and the consideration of each proposal and that establish a baseline for proposal evaluation for recommendations regarding the source selection decision. Price, or cost to the government, and quality are addressed in every source selection. Other relevant factors may also be included (see also 1.2.3.7, Evaluation Factors, page 43).
  - 1.2.3.9 **Risk Management**—The process for identification, analysis, and treatment of loss exposure, as well as the administration of techniques to accomplish the goal of minimizing potential financial loss from such exposure.
- 1.2.4 **Negotiation**—The process of entering into or modifying a contract to the mutual agreement of the parties to the contract (see also 1.2.4, Negotiation, page 43).
  - 1.2.4.1 **Sole-Source Negotiation**—The process for entering into or modifying a contract after soliciting and negotiating with only one source (see also 1.2.4, Negotiation, page 43).

- 1.2.4.2 **Fact Finding**—The process of identifying and obtaining information necessary to complete the evaluation of proposals.
- 1.2.4.3 **Negotiation Objectives**—Determining the issues to be negotiated and the minimum and maximum positions for each issue (see also 1.2.4.3, Negotiation Objectives, page 44).
- 1.2.4.4 **Strategy and Tactics**—Specific methods used during negotiations to reach agreement.
- 1.2.5 **Source Selection**—The process wherein the requirements, facts, recommendations, and policies relevant to an award decision in a competitive procurement of a system/project are examined and the decision made.
  - 1.2.5.1 **Organization**—A specific evaluation group structure established to evaluate proposals and select the source for contract award (see also 1.2.5.1, Organization, page 44).
  - 1.2.5.2 **Source Selection Board**—Any board, team, council, or other group that evaluates bids or proposals for the purpose of selecting a contract/contractor.
  - 1.2.5.3 **Evaluation Process**—The process used to evaluate offers against established selection criteria in accordance with the source selection plan.
  - 1.2.5.4 **Cost/Price Analysis**—A review to determine and evaluate the cost elements in an offeror’s or contractor’s proposal to determine how well the proposed costs represent what the cost of the contract should be, assuming reasonable economy and efficiency.
  - 1.2.5.5 **Discussions**—Any oral or written communication between the government and an offeror, other than communications conducted for the purpose of minor clarification, whether or not initiated by the government, that (1) involves information essential for determining the acceptability of the proposals or (2) provides the offeror an opportunity to revise or modify its proposal.
  - 1.2.5.6 **Debriefing**—An explanation given by government personnel to an offeror, detailing the reasons its proposal was unsuccessful (see also 1.2.5.6, Debriefing, page 44).
- 1.2.6 **Protest**—A written objection by an interested party to (1) a solicitation or other request by an agency for offers for a contract for the procurement of property or services, (2) the cancellation of the solicitation or other request, (3) an award or proposed award of the contract, or (4) a termination or cancellation of an award of the contract, if the written objection contains an allegation that the termination or cancellation is based in whole or in part on improprieties concerning the award of the contract.
  - 1.2.6.1 **Forums**—The administrative and judicial bodies that adjudicate protests.
  - 1.2.6.2 **Alternative Dispute Resolution (ADR)**—Administrative procedures established within an agency as an alternative to outside protest forums.
  - 1.2.6.3 **Procedures**—The processes used by the administrative and judicial forums to resolve protests.
  - 1.2.6.4 **Arbitration**—The use of an impartial third party to whom the parties to an agreement refer their disputes for resolution. Some contracts contain provisions that provide for binding arbitration of unsettled grievances.

- 1.3 **Contract Administration**—Management of issues that arise during the performance of a contract.
- 1.3.1 **Contract Performance/Quality Assurance**—A planned and systematic pattern of actions necessary to provide adequate confidence that material, data, supplies, and services conform to established technical requirements, and to achieve satisfactory performance.
- 1.3.1.5 **Inspection**—The examination (including testing) of supplies and services (including, when appropriate, raw materials, components, and intermediate assemblies) to determine whether the supplies and services conform to the contract requirements.
- 1.3.1.6 **Acceptance**—That act of an authorized buyer representative by which the buyer assents to ownership of existing and identified supplies, or approves specific services rendered, as partial or complete performance of a contract.
- 1.3.1.7 **Warranty**—A promise or affirmation given by a seller to a buyer regarding the nature, usefulness, or condition of the supplies or performance of services furnished under the contract. Generally, a warranty’s purpose is to delineate the rights and obligations for defective items and services, and to foster quality performance.
- 1.3.1.8 **Indemnification**—Protections provided by the parties to each other; also to restore a loss, either in whole or in part, by payment, repair, or replacement (see also 1.3.1.8, Indemnification, page 46).
- 1.3.1.9 **International Organization for Standardization (ISO) Standards**—The ISO Standards are families of standards consisting of standards and guidelines that relate to management systems and related supporting standards on terminology and specific tools, such as auditing (the process of checking that the management system conforms to the standard).
- 1.3.1.10 **Defense Priorities and Allocations System (DPAS)**—A Department of Commerce system controlling the use of critical material and facilities. Goals are to ensure the timely availability of industrial resources to meet current defense requirements and provide a framework for rapid industrial expansion in case of a national emergency (see also 1.4.5.4, Defense Production Act, page 32).
- 1.3.2 **Subcontract Management**—A concept that addresses subcontracting issues and the buyer’s role in ensuring successful prime contractor interaction with subcontractors to satisfy prime contract requirements.
- 1.3.2.1 **Privity of Contract**—The legal relationship between two parties to the same contract. The buyer has “privity of contract” with the prime contractor. Therefore, the buyer’s relationship with subcontractors is indirect in nature.
- 1.3.2.2 **Make-or-Buy Program**—That part of a contractor’s written plan for the development or production of an end item outlining the subsystems, major components, assemblies, subassemblies, and parts intended to be manufactured, test-treated, or assembled by the seller (make) and those the seller intends to procure from another source (buy).

- 1.3.2.3 Consent to Subcontract**—Situations in which the government must consent to a prime contractor’s subcontract. Consent is required when subcontract work is complex, the dollar value is substantial, or the government’s interest is not adequately protected by competition and the type of prime or subcontract.
- 1.3.2.4 Contractor’s Purchasing Systems Review**—An evaluation of the efficiency and effectiveness with which the prime contractor spends government funds and complies with government policy when subcontracting.
- 1.3.3 Contract Changes/Modifications**—Any written alterations in the specification, delivery point, rate of delivery, contract period, price, quantity, or other provision of an existing contract, accomplished in accordance with a contract clause; may be unilateral or bilateral.
- 1.3.3.1 Change Orders**—Written orders signed by the contracting officer or buyer, which are authorized by a contract clause, to modify contractual requirements within the scope of the contract.
- 1.3.3.2 Supplemental Agreements**—Contract modifications that are accomplished by the mutual consent of the parties.
- 1.3.3.3 Constructive Changes**—Oral or written acts or omissions by an authorized government official that are of such a nature that they have the same effect as written change orders.
- 1.3.3.4 Administrative Changes**—Unilateral contract changes, in writing, that do not affect the substantive rights of the parties, such as a change in the paying office or the appropriation data (see also 1.3.3.4, Administrative Changes, page 47).
- 1.3.3.5 Bilateral and Unilateral**—A bilateral contract is formed by the exchange of promises to perform reciprocal obligations for the other party. A unilateral contract is formed by the exchange of a promise of one party for an action by the other party.
- 1.3.3.6 Cardinal Change**—A major change to a contract that is made outside the scope of the contract and is, therefore, unenforceable by the government. A cardinal change is a breach of contract (see also 1.3.3.6, Cardinal Change, page 47).
- 1.3.3.7 Delays**—Contractual provisions designed to protect the contractor from sanctions for late performance. To the extent that it has been excusably delayed, the contractor is protected from default termination, liquidated damages, or excess costs of procurement or completion. Excusable delays (e.g., acts of God or the public enemy, acts of the government in either its sovereign or contractual capacity, fire, flood, quarantines, strikes, epidemics, unusually severe weather, or freight embargoes) also may lead to recovery of additional compensation if the government constructively accelerates performance (see also 1.3.3.7, Delays, page 47).
- 1.3.3.8 Stop-Work Order**—Under a negotiated fixed price supply, cost-reimbursement supply, R&D, or service contract, a contract clause that permits the contracting officer to order the contractor to stop work if a work stoppage is required for reasons such as state-of-the-art advancements, production or engineering breakthroughs, or realignment of programs (see also 1.3.3.8, Stop-Work Order, page 47).

- 1.3.4 **Property Administration**—The processes used by prime contractors to account for and manage all property, both real and personal. Includes facilities, material, special tooling, special test equipment, and agency-peculiar property.
- 1.3.4.1 **Property Control System**—Procedures that meet the requirements of government property clauses to control, protect, and maintain all government property.
- 1.3.4.2 **Records and Reports**—Procedures to maintain official records of government property and periodic reports required in accordance with contract clauses.
- 1.3.5 **Transportation**—Applying transportation and traffic management considerations in the acquisition of supplies and acquiring transportation-related services.
- 1.3.5.1 **Modes of Transportation**—Means of moving freight traffic using transportation methods such as bills of lading, parcel post, bus service, air cargo, rail freight, carload and less than carload, motor freight, freight forwarder, and pipeline.
- 1.3.5.2 **Transportation-Related Services**—Procedures for the acquisition of related services such as stevedoring, storage, packing, marking, and ocean freight forwarding.
- 1.3.5.3 **Free On Board (FOB)**—A term used in conjunction with a physical point to determine the responsibility and basis for payment of freight charges and, unless otherwise agreed, the point at which title for goods passes to the buyer or consignee (see also 1.3.5.3, Free On Board, page 48).
- 1.3.6 **Disputes**—Disagreement between the parties regarding their rights under a contract that will originate when a claim is denied by the party against which it is made.
- 1.3.6.1 **Forums**—The administrative and judicial bodies that adjudicate disputes.
- 1.3.6.2 **Alternative Dispute Resolution**—Any procedure that is used, in lieu of litigation, to resolve issues in controversy, including but not limited to settlement negotiations, conciliation, facilitation, mediation, fact finding, mini-trials, and arbitration.
- 1.3.6.3 **Procedures**—The processes used by administrative and judicial forums to adjudicate disputes.
- 1.3.6.4 **Extraordinary Contractual Relief**—Form of relief for contractors under federal law giving the president the power to authorize federal agencies to enter into contracts, or amendments or modifications of contracts, without regard to other revisions of law relating to the making, performance, amendment, or modification of contracts, when the president believes the action will facilitate national defense.
- 1.3.6.6 **Arbitration**—Process involving the use of an impartial third party to whom the parties to an agreement refer their disputes for resolution (see also 1.3.6.6, Arbitration, page 48).
- 1.3.7 **Contract Closeout**—The process of declaring that the obligations under a contract have been satisfied and that a procurement file is both physically and administratively complete. A closeout can occur when (1) the contractor's supplies or services have been accepted and paid for, and (2) all documentation on the procurement is finalized and properly assembled (see also 1.3.7, Contract Closeout, page 48).

- 1.3.7.1 **Physical Completion**—When the contractor has completed required deliveries and/or performed all services, all options have expired, or the contractor has given a notice that the contract has been terminated.
- 1.3.7.2 **Administrative Closeout**—Process of ensuring that all documentation—including releases, audits, reports, and final invoices—has been completed and that contract files have been properly stored or disposed of.
- 1.3.8 **Contract Termination**—Action taken pursuant to a contract clause in which the contracting officer unilaterally ends all or part of the work.
  - 1.3.8.1 **Convenience Termination**—Right reserved to the government, under the standard Termination for Convenience clause, to bring an end to contracts that are made obsolete by technological and other developments or that are otherwise no longer advantageous to the government.
  - 1.3.8.2 **Default Termination**—An action that the government may impose under the standard default clause for a contractor’s failure to perform.
  - 1.3.8.3 **Records Retention**—After contract closeout is completed, FAR 4.805 establishes retention periods for contract files. The record retention requirements apply to both prime contracts and subcontracts. Contractors must make books, records, documents, and other supporting evidence available to the comptroller general and contracting agencies for a certain period after final payment. The calculation of a retention period starts at the end of the contractor’s fiscal year in which an entry is made that charges a cost to a government contract (see also 1.3.7.3, Records Retention, page 48).
- 1.4 **Specialized Knowledge Areas**—Those areas that require additional specialized knowledge that is over and above the knowledge and intelligence of a person of ordinary experience (see also 1.4, Specialized Knowledge Areas, page 49).
  - 1.4.1 **Research and Development (R&D)**—Effort that constitutes either research or development or both.
    - 1.4.1.1 **R&D Contract**—A contract for basic research (directed toward improving or expanding new scientific discoveries, technologies, materials, processes, or techniques) or development (directed production of, or improvements in, useful products to meet specific performance requirements through the systematic application of scientific knowledge).
    - 1.4.1.2 **Grant**—A legal instrument for transferring money, property, or services to the recipient to accomplish a public purpose of support or stimulation where there is no substantial involvement between the federal agency and recipient during performance.
    - 1.4.1.3 **Cooperative Agreement**—A legal instrument used principally for transferring money, property, or services to a state or local government or to another recipient to accomplish a public purpose of support or stimulation where substantial involvement is expected between the government agency and the recipient (see also 1.4.1.3, Cooperative Agreement, page 49).



- 1.4.1.4 **Independent Research and Development (IR&D)**—Contractor effort that is neither sponsored by a grant nor required in performing a contract and that falls within any of the following four areas: (1) basic research, (2) applied research, (3) development, and (4) systems and other concept formulation studies (see also 1.4.1.4, Independent Research and Development, page 49).
- 1.4.1.5 **Small Business Innovative Research (SBIR)**—(see 1.2.2.6, Small Business Innovation Research, page 24).
- 1.4.1.6 **Federally Funded Research and Development Corporation (FFRDC)**—Activity sponsored under a broad charter by a government agency (or agencies) for the purpose of performing, analyzing, integrating, supporting, and/or managing basic or applied research and/or development, and which receives 70 percent or more of its financial support from the government. In FFRDCs, a long-term relationship is contemplated; most or all of the facilities are owned or funded by the government; and the FFRDC has access to government and supplier data, employees, and facilities beyond that which is common in a normal contractual relationship. The operation, management, and administration of an FFRDC is performed by a university, consortium of universities, nonprofit organization, or industrial firm as an identifiable and separate operating unit of a parent organization. The National Science Foundation maintains the master list of FFRDCs.
- 1.4.2 **Architect and Engineer (A&E) Services and Construction**—A&E includes professional services of an architectural or engineering nature, which are required to be performed or approved by a person licensed, registered, or certified to provide such services or are associated with research, planning, development, design, construction, alteration, or repair of real property or other related professional services, such as studies and surveys. Construction means alteration or repair, including dredging, excavating, and painting of buildings, structures, or other real property.
  - 1.4.2.1 **A&E Selection Process**—The process used to select A&E firms pursuant to the Brooks Act.
  - 1.4.2.2 **Construction Contracts**—The traditional method of construction contracting that uses the phases of design, bid, and build for construction projects (see also 1.4.2.2, Construction Contracts, page 49).
  - 1.4.2.3 **Design/Build**—A method of construction contracting that combines the architectural, engineering, and construction services required for a project into a single agreement (see also 1.4.2.3, Design/Build, page 49).
  - 1.4.2.4 **Outsourcing**—A version of the make-or-buy decision, commonly used for services, in which a firm elects to purchase an item/service that previously was made/performed in-house (see also 1.3.7.4, Outsourcing of Contract Management, page 48).
- 1.4.3 **Information Technology (IT)**—The collection of technologies that deal specifically with processing, storing, and communicating information; includes all types of computer and communication systems. It involves those special policies and procedures applicable to the acquisition and use of computers, telecommunications, and related resources (see also 1.4.3, Information Technology, page 50).



- 1.4.3.1 **Network Systems**—Computer equipment or interconnected systems or subsystems of equipment used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching interchange, transmission, or reception of data or information by a federal agency or under a contract with a federal agency. These systems include computers, servers, ancillary equipment, software, and related services (see also 1.4.3.1, Network Systems, page 50).
- 1.4.3.2 **Telecommunications**—Equipment used for such modes of transmission as telephone, data, facsimile, video, radio, and audio, and such corollary items as switches, wire, cable, access arrangements, and communications security facilities and related services (see also 1.4.3.2, Telecommunications, page 50).
- 1.4.3.3 **Electronic Commerce**—The use of information technology to conduct business between two or more organizations or between an organization and one or more end customers via one or more computer networks. Beginning in the mid-1990s, the World Wide Web and other Internet technologies became major platforms for conducting electronic commerce (see also 1.4.3.3, Electronic Commerce, page 50).
- 1.4.3.4 **Enterprise Resource Planning (ERP) System**—A set of integrated business applications, or modules, to carry out most common business functions, including inventory control, general ledger accounting, accounts payable, accounts receivable, material requirements planning (MRP), order management, purchasing, and human resources. ERP modules are integrated, primarily through a common set of definitions and a common database, and the modules have been designed to reflect a particular way of doing business (i.e., a particular set of business processes). Some of the leading ERP vendors are SAP, Oracle, and PeopleSoft (see also 1.4.3.4, Enterprise Resource Planning System, page 50).
- 1.4.3.5 **Seat Management (SEAT)**—A customer-selected set of desktop and networking functions that may include contractor-provided personal computers and network hardware, desktop and network software, the management of the hardware and software assets, help desk, training, and the maintenance of the hardware and software (see also 1.4.3.5, Seat Management, page 50).
- 1.4.4 **Major Systems**—A combination of elements that function together to produce the capabilities required to fulfill a mission need, including hardware, equipment, software, or any combination of these, but excluding construction.
  - 1.4.4.1 **System Acquisition Process (life cycle)**—The sequence of acquisition activities starting with the agency's reconciliation of its mission needs with capabilities, priorities, and resources and extending through the introduction of a system into operational use or the otherwise successful achievement of program objectives.
  - 1.4.4.2 **Program Management**—The process whereby a single leader and team are responsible for planning, organizing, coordinating, directing, and controlling the combined efforts of participating and assigned personnel and organizations in the accomplishment of program objectives. This special management approach provides centralized authority and responsibility for the management of a specific program.

- 1.4.4.3 **Program Manager–Contracting Officer Relationship**—The authority and responsibility of the program manager, who is in charge of executing the program, and the contracting officer, who has a fiduciary responsibility to ensure that all laws and regulations are complied with prior to signing the contract, requires a close working relationship (see also 1.4.4.3, Program Manager–Contracting Officer Relationship, page 51).
- 1.4.5 **Service Contracts**—Contracts that directly engage the time and effort of a contractor whose primary purpose is to perform an identifiable task rather than furnish an end item of supply.
  - 1.4.5.1 **Advisory and Assistance Services**—Services acquired to support or improve agency policy development, decision making, management, and administration, or to support or improve the operation of management systems.
  - 1.4.5.2 **Personal Services**—A contract that by its express terms, or as administered, makes the contractor personnel appear, in effect, as government employees (see also 1.4.5.2, Consulting, page 51).
  - 1.4.5.3 **Alpha Contracting**—(see 1.1.5.11, Alpha Contracts, page 20).
  - 1.4.5.4 **Defense Production Act**—An Act passed in 1950 (50 U.S.C. app 2061 and the following ones) that authorizes the president to require the priority performance of contracts and orders necessary or appropriate to promote the national defense over other contracts or orders; to allocate materials, services, and facilities as necessary or appropriate to promote the national defense; and to require the allocation of, or the priority performance under contracts or orders relating to, supplies of materials, equipment, and services to ensure domestic energy supplies for national defense needs (see also 1.3.1.12, Defense Priorities and Allocations System, page 26).
  - 1.4.5.5 **Inherently Governmental**—An activity that is so intimately related to the public interest that it mandates performance by federal employees. Activities that meet these criteria are not in competition with commercial sources, are not generally available from commercial sources, and, therefore, are not subject to OMB Circular A-76 or its supplement.
  - 1.4.5.6 **Facilities Contract**—A contract under which government facilities are provided to a contractor or subcontractor by the government for use in connection with performing one or more related contracts for supplies or services. It is used occasionally to provide special tooling or special test equipment. Facilities contracts are cost contracts; contractors receive no fee.
  - 1.4.5.7 **OMB Circular A-76**—Establishes federal policy regarding the performance of commercial activities. It implements the statutory requirements of the Federal Activities Inventory Reform Act of 1998, *Public Law 105-270*.
- 1.4.6 **International Contracting**—The policies and procedures that govern the acquisition and sale of goods and services with foreign nationals and governments.

- 1.4.6.1 **Agreements and Restrictions**—Agreements exist among the United States and its trading partners regarding international procurement. These include the General Agreement on Tariffs and Trade (GATT), the GATT Government Procurement Code, the North American Free Trade Agreement (NAFTA), as well as bilateral agreements that have been negotiated between the United States and other countries (such as the U.S.-Canada Free Trade Agreement). Congress has routinely included in appropriation acts restrictions on the procurement of certain foreign items, usually to protect domestic industries (see also 1.4.6.1, Agreements and Restrictions, page 52).
- 1.4.6.2 **Export Controls**—The comprehensive set of controls that have been established to protect national security interests and to foster foreign policy initiatives. The Department of State monitors and controls the export and re-export of goods and services in accordance with the International Traffic in Arms Regulations (ITAR), and the Department of Commerce Export Administration Regulation (EAR) enforces the Export Administration Act.
- 1.4.6.3 **Foreign Military Sales (FMS)**—That portion of the U.S. security assistance authorized by the Foreign Assistance Act (1961), as amended, and the Arms Export Control Act, as amended, where the recipient provides reimbursement for defense articles and services transferred. FMS includes Department of Defense (DOD) cash sales from stocks; DOD guarantees covering financing by private or Federal Financing Bank sources for credit sales of defense articles and defense services; sales financed by appropriated direct credits; and sales funded by grants under the Military Assistance Program.
- 1.4.7 **State and Local Government (S&L)**—The policies and procedures that govern the acquisition and sale of goods and services at the state and local government levels.
  - 1.4.7.1 **Authority**—The sources from which entities or people receive their empowerment to engage in procurement activities, and which set forth the framework and parameters and extend to their empowerment. Such authority includes state statutes, state and local regulation charters, local ordinances, and administrative resolutions, policies, or edicts.
  - 1.4.7.2 **Organization**—The administrative and personnel structure of a business or government that reflects the organizational patterns, procurement authority, and scope of activities of its various elements. It may include boards, commissions, or committees and may reflect a delegation's exemptions, as well as full or limited authority to act (see also 1.4.7.2, Organization, page 52).
  - 1.4.7.3 **Intergovernmental Relations**—A range of cooperative activities among governments, including various forms of intergovernmental cooperative purchasing, joint or shared use of facilities and supplies, and procurements made by one government from another.
- 1.4.8 **Supply Chain**—Sum total of all functions, operations, and facilities that are involved in the procurement and delivery of goods to a customer; includes manufacturers, warehouses, transportation, distribution centers, retail outlets, and inventory at stages from raw materials to finished package that flows between and among facilities.
  - 1.4.8.1 **Supply Chain Management**—Management of flows between and among all stages and facilities in a supply chain to maximize profitability.
- 1.5 **General Business**—Portions of other disciplines relevant to contract management (see also 1.5 and subsequent, General Business, page 53).

- 1.5.1 **Management**—The art and science of the processes of planning, organizing, staffing, directing, and controlling the affairs of the organization.
  - 1.5.1.1 **Principles**—The explanation of the methods and operation of the processes of management.
  - 1.5.1.2 **Systems and Processes**—The arrangement of things so connected or related as to form a whole, generally involving a number of steps or operations.
  - 1.5.1.3 **Human Relations**—Individual behavior, interpersonal relationships, group behavior, and human problems in the work environment.
  - 1.5.1.4 **Organizational Behavior**—Human behavior as it influences organizational efficiency and effectiveness.
  - 1.5.1.5 **Organizational Communication**—Focuses on the processes of communication ranging from that between two persons to that of the total organization.
- 1.5.2 **Marketing**—Activities that direct the flow of goods and services from the producer to the consumers.
  - 1.5.2.1 **Organizational/Industrial Marketing**—Activities of marketing directed toward organizations rather than individual consumers, including research, product planning, and development, distribution, promotion, and pricing.
  - 1.5.2.2 **Product/Service Planning**—Defining the product or service that satisfies the needs of clients and customers.
  - 1.5.2.3 **Promotion**—Publicizing the attributes of the product/service through media and personal contacts and presentations (e.g., technical articles/presentations, news releases, advertising, and sales calls).
  - 1.5.2.4 **Pricing**—Concerned with strategies for pricing products such as market-based pricing or cost-based pricing.
- 1.5.3 **Operations Management**—The concepts, techniques, and practices used in managing the operations of an organization.
  - 1.5.3.1 **Production/R&D/Services**—Operational strategies, system design, capacity planning, scheduling, and quality.
  - 1.5.3.2 **Logistics**—Inventory management, transportation and traffic, and distribution supporting the product/service mission of the organization.
  - 1.5.3.3 **Procurement**—Acquiring the goods and services supporting the missions of the organization, including the development and maintenance of relationships with suppliers and internal customers.
- 1.5.4 **Finance**—Managing the money matters of the organization.

- 1.5.4.1 **Corporate**—Concepts and techniques of asset financing, capital investment, taxes, investor relations, risk and return, cost of capital, and cash management.
- 1.5.4.2 **Financial Reporting**—Includes financial statements, sales forecasting, planning, and control.
- 1.5.4.3 **Financial Analysis**—Includes international financial analysis, return on assets, return on investment, asset turnover, and variance analysis.
- 1.5.4.4 **Forecasting**—An estimate of financial position, results of operations, and changes in cash flows for one or more future periods based on a set of assumptions representing the most probable outcomes. If the assumptions are not necessarily the most likely outcomes, the estimate is called a “projection.”
- 1.5.4.5 **Cash Budgeting**—A schedule of expected cash receipts and disbursements for a designated period. The primary reason for a cash budget is to forecast a company’s future financing needs. A cash budget is also used to avoid either unnecessary idle cash or possible cash shortages. In case of cash shortage, it indicates whether the shortage is temporary or permanent (i.e., whether short-term or long-term borrowing is needed).
- 1.5.4.6 **Break Even Analysis**—A means of determining the number of goods or services that must be sold at a given price to generate sufficient revenue to cover costs.
- 1.5.4.7 **Working Capital**—The excess of current assets over current liabilities that represents a company’s financial liquid resources to meet demands of the operating cycle.
- 1.5.4.8 **Capital Budgeting**—The process of planning for the best selection and financing of long-term investment proposals, taking into account the time value of money.
- 1.5.4.9 **Leases**—Rental agreements in which the lessor conveys to the lessee the right to use the lessor’s personal or real property, usually in exchange for a payment of money.
- 1.5.4.10 **Export Financing**—Financing of international transactions in the exporting or importing of products and services. Addresses factors such as transit times, customs regulations, banking rules and regulations, buyer and seller credit, exchange rates, and political risk.
- 1.5.4.11 **Revenue Recognition**—The process of formally recording or incorporating a revenue item in the accounts and financial statements of an entity. The revenue recognition principle provides that revenue is recognized when (1) it is realized or realizable and (2) it is earned. Revenues are realized when goods and services are exchanged for cash or claims to cash (receivables). Revenues are realizable when assets received in exchange are readily convertible to known amounts of cash or claims to cash. Revenues are earned when the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues; that is, when the earnings process is complete or virtually complete.
- 1.5.4.12 **Overhead**—Indirect costs other than those related to general and administrative expense and selling expenses; a general term often used to identify an indirect cost.

- 1.5.4.13 **General and Administrative (G&A)**—A subcategory of overhead; includes costs necessary for overall management and operations but not directly associated with a specific cost objective or business segment. Typical G&A costs include sales staff salaries, insurance, executive compensation, and central office expenses.
- 1.5.4.14 **Cost as an Independent Variable (CAIV)**—An acquisition strategy focusing on cost-performance trade-offs in setting program goals. The goal of trade-offs is to achieve an affordable balance among cost, performance, and schedule. CAIV engages the end user, the developer, and the supporter to facilitate meaningful trade-offs.
- 1.5.4.15 **Earned Value**—A management technique that relates resource planning to schedules and to technical cost and schedule requirements. All work is planned, budgeted, and scheduled in time-phased “planned value” increments constituting a cost and schedule measurement baseline. There are two major objectives of an earned-value system: (1) to encourage contractors to use effective internal cost and schedule management control systems, and (2) to enable the customer to rely on timely data produced by those systems for determining product-oriented contract status.
- 1.5.5 **Accounting**—The principles and practices of systematically recording, presenting, and interpreting financial data.
  - 1.5.5.1 **Managerial**—The controllership function of organizations (public and private) in the development of policy and evaluation of performance.
  - 1.5.5.2 **Cost**—Concerned with the accounting system design for recording, accumulating, and reporting costs for specific products and services.
  - 1.5.5.3 **Auditing**—The examination and review of operations for compliance with corporate policies.
  - 1.5.5.4 **Budgeting**—The planning, scheduling, and budgeting of organizational expenses for the fiscal period.
- 1.5.6 **Economics**—The study of the problems arising when goods and services are scarce, relative to human desires for those goods and services.
  - 1.5.6.1 **Principles**—Concepts of supply and demand, operation of the free market system, financial markets, and the country’s role in the world economy.
  - 1.5.6.2 **Managerial**—The application of economic analysis to business management, interpreting trends and developments, and forecasting.
  - 1.5.6.3 **Micro**—Studies particular to market quantities (a commodity price, output of a company, wages of specific industry), rather than totals of the economy.
  - 1.5.6.4 **Macro**—Overall quantities, such as total national income and output, the general price level, total employment, and total investment.
- 1.5.7 **Quantitative Methods**—Scientific tools used in the analysis of practical business problems in decision making.

- 1.5.7.1 **Statistics**—Tools including descriptive statistics, probability theory, probability and sampling distribution, inference estimation, and hypothesis testing.
- 1.5.7.2 **Deterministic Models**—These models include linear programming and geometric programming.
- 1.5.7.3 **Stochastic Models**—These models include regression and correlation, and analysis of variance.
- 1.5.8 **Information Science**—The technical, managerial, and policy issues associated with computer-based information systems in modern organizations.
  - 1.5.8.1 **Information Management**—The applications of information science to the practical aspects of specifying, designing, implementing, and managing information systems.
  - 1.5.8.2 **Programming**—The data structures and algorithms applied in programming solutions to problems.
  - 1.5.8.3 **Database Management**—Includes data modeling, query languages database design, and transaction processing.

#### **The CMBOK Lexicon for Commercial Contract Managers**

- 1. **NCMA CMBOK**—Definitive descriptions of the elements making up the body of professional knowledge that applies to contract management. The following terms comprise some of the terminology for the commercial contract manager. Some of the terms are common to those just outlined for the federal contract manager and some are specific to the commercial contract manager. Where definitions included in the federal lexicon are different, the corresponding federal definition is noted as “see also.”
  - 1.1 **Contract Principles**—Fundamentals of contract management that all contracting professionals must comprehend.
    - 1.1.1 **Standards of Conduct**—Refer to the ethical conduct of personnel involved in the purchase or sale of goods and services. Include personal conduct and also compliance with laws, regulations, and corporate standards.
      - 1.1.1.1 **Ethics**—Of or relating to moral action, conduct, motive, or character, as ethical emotion; treating of moral feelings, duties, or conduct; containing precepts of morality; moral, professionally right, or benefiting; conforming to professional standards of conduct (see also 1.1.1.1, Ethics, page 13).
      - 1.1.1.2 **Conflict of Interest**—Concerns officials and fiduciaries and their relationship to matters of private interest or gain to themselves. Ethical problems connected therewith are covered by statutes in most jurisdictions and by federal statutes on the federal level. A conflict of interest arises when an employee’s personal or financial interest conflicts or appears to conflict with his or her official responsibility (see also 1.1.1.2, Conflict of Interest, page 13).
      - 1.1.1.3 **Improper Practices**—A broad range of activities forbidden or limited by the law or regulation with regard to the award and performance of contracts.

- 1.1.1.4 **Corporate Responsibility and Personal Conduct**—Laws and standards governing both corporate and individual behavior, including standards of ethics and conduct, social responsibility, law, regulation, and public policy.
- 1.1.1.9 **Fraud**—Unethical conduct in the creation of the contract. Includes offer and acceptance: conduct that communicates a promise on the part of one party and a manifestation to the terms of the offer by the other party. Conduct of both parties represents capacity to contract, good faith dealings (honesty in fact and reasonable standard of fair dealing), and legality of purpose. Includes apparent authority: the authority that, although not actually granted, the principal knowingly permits an agent to exercise or the principal holds the agent out as possessing (see also 1.1.1.8, Fraud, p. 14).
- 1.1.2 **Laws and Regulations**—The statutes and regulations that provide the legal and regulatory framework for the purchase or sale of goods and services.
  - 1.1.2.1 **Contract Formation**—The elements of offer, acceptance, mutuality of consideration, competent parties, legal subject matter, and mutuality of agreement.
  - 1.1.2.3 **Uniform Commercial Code**—The uniform law in the United States governing commercial transactions, developed by the National Conference of Commissioners on Uniform States Laws and the American Law Institute. It has been adopted by all states in the United States except Louisiana and is sometimes used to aid in the interpretation and enforcement of government subcontracts (see also 1.1.2.3, Uniform Commercial Code, page 14).
  - 1.1.2.7 **Common Law**—A body of law common to the whole population, produced primarily by the efforts of the judiciary to harmonize their decisions with precedent decisions and changes in law or regulation.
  - 1.1.2.8 **State Differences and Jurisdictional Issues**—Differences and distinctions between state laws and factors in determining appropriate law and regulation governing business dealings, including law of the forum, conflicts of laws, domicile, and center of gravity.
  - 1.1.2.9 **Insurance Law**—Law governing the transfer of risk from one person (either the insured person or the policy owner) to another (the insurer). This transfer of risk is accomplished by a two-party contract called an “insurance policy.”
  - 1.1.2.10 **U.S. Securities and Exchange Commission (SEC)**—The SEC regulates securities markets. The SEC requires public companies to disclose meaningful financial and other information to the public, which provides a common pool of knowledge for all investors. The SEC also oversees other key participants in the securities world, including stock exchanges, broker-dealers, investment advisors, mutual funds, and public utility holding companies. The SEC is concerned primarily with promoting disclosure of important information, enforcing the securities laws, and protecting investors who interact with these various organizations and individuals.

As a regulatory agency, the SEC frequently exercises its enforcement authority. Each year the SEC brings between 400 and 500 civil enforcement actions against individuals and companies that break the securities laws. Typical infractions include insider trading, accounting fraud, and providing false or misleading information about securities and the companies that issue them.



- 1.1.2.11 **Finance**—Law and regulation governing financial difficulty. Includes creditor’s rights and debtor relief, bankruptcy, liquidation, and business reorganizations.
- 1.1.2.12 **Trade**—Law in the United States, including the Robinson-Patman Act, unfair-trade laws, fair-trade laws, and other legal and regulatory restrictions on the conduct of business, especially with respect to pricing.
- 1.1.3 **Socioeconomic Programs**—Institutional and government programs designed to benefit particular groups that include diversity, accessibility, and other social impacts to the business world (see also 1.1.3, Socioeconomic Programs, page 14).
- 1.1.3.3 **Labor Laws**—Policies and procedures for implementing labor laws, including the National Labor Relations Act (NLRA) and state statutes in the United States (see also 1.1.3.3, Labor Laws, page 15).
- 1.1.3.4 **Diversity**—Multicultural issues in the conduct of business and trade that include cultural diversity, workplace diversity, and supplier diversity (see also 1.1.3.4, Diversity, page 15).
- 1.1.3.9 **Employment**—Legal requirements addressing Equal Employment Opportunity (EEO), discrimination, and other aspects of the employer-employee relationship.
- 1.1.3.10 **Accessibility**—The availability of public conveyances, facilities, utilities, technologies, and other designated resources to all persons. In the United States, accessibility considerations are the purview of the Access Board, an independent federal agency devoted to accessibility for people with disabilities. The Access Board develops and maintains accessibility requirements for the built environment, transit vehicles, telecommunications equipment, and electronic and information technology; provides technical assistance and training on these guidelines and standards; and enforces accessibility standards for federally funded facilities.
- 1.1.4 **Contract Structures**—Specific business arrangements that govern the buyer-seller relationship; types of promises or sets of promises that courts will enforce.
- 1.1.4.8 **Formal and Informal Contracts**—A formal contract is one to which the law gives special effect because of the form used in creating it (e.g., negotiable instruments). An informal contract is one for which the law does not require a particular set of formalities.
- 1.1.4.9 **Unilateral and Bilateral Contracts**—A unilateral contract is one in which only one party (promissor) makes a promise; in contrast, a bilateral contract is one in which both parties make promises.
- 1.1.4.10 **Implied, Express, Quasi Contracts**—An implied contract (sometimes called “implied in fact”) is one in which the terms of the contract are wholly or partly inferred from conduct or surrounding circumstance. An express contract is one in which the terms of the contract are stated in words, either written or spoken. Quasi contracts (sometimes called “implied in law”) are obligations imposed by law to prevent the unjust enrichment of one person at another’s expense.

- 1.1.4.11 **Electronic, Web-based, Clickware**—Contracts for sale accomplished electronically using the Internet, where the offer is displayed via an Internet site and the acceptance is accomplished electronically. Terms are sellers' terms associated with the Web site, and obligations of the parties with regard to disclosure of terms and acceptance of liabilities are governed by law and regulation.
- 1.1.4.12 **Use of Trade/Course of Dealing**—Any practice or method of dealing having such regularity of observance in a place, vocation, or trade as to justify an expectation that it will be observed with respect to the transaction in question; a pattern of prior business transactions that can establish a background for the interpretation of the immediate transaction.
- 1.1.5 **Contracting Methods** (see 1.1.5, Contracting Methods, page 20).
- 1.1.5.13 **Point of Sale Transactions**—Business arrangements in which the entire business arrangement between the parties is executed in a single event.
- 1.1.5.14 **Master Agreements**—Business arrangements in which the parties determine the underlying commercial arrangement governing the relationship (e.g., terms and conditions) but defer specific negotiation of elements of the contract to specific events or transactions (e.g., price).
- 1.1.5.15 **Sales Contracts**—Business arrangements in which all elements of the transaction are determined and defined between the parties at the time of contract formation, including mutual assent, exchange of consideration, capacity to contract, and legal purpose.
- 1.1.5.16 **Framework Pricing Arrangement**—A contract that is definitive in all respects except pricing. The agreement or contract specifies a predetermined index, formula, or algorithm (i.e., the "framework") for the calculation of price at the point of sale.
- 1.1.5.17 **Performance-Based Contract**—A contract that is structured around the purpose of the work to be performed as opposed to either the manner in which the work is to be performed or a broad statement of work (SOW).
- 1.1.5.18 **Competitive Bidding/Negotiation**—A method of contracting involving a request for proposal that states the buyer's requirements and criteria for evaluation; submission of timely proposals by a maximum number of offerors; discussions with those offerors found to be within the competitive range; and award of a contract to the one offeror whose offer, price, and other consideration factors are most advantageous to the buyer.
- 1.1.5.19 **Single-Source Negotiation**—Negotiation with a single provider, because either (1) the provider is the sole supplier of the product or service or (2) the relationship with the provider is of strategic importance, based on long-term relationships, and built on mutual trust.
- 1.1.5.20 **Gap Fillers**—Interim agreements that define the rights and obligations of the parties and establish the basis for the conduct of business prior to the establishment of a long-term contractual relationship. Includes memorandums of understanding (MOUs), letter contracts, teaming agreements, and other short-term agreements.
- 1.1.6 **Contract Financing**—Methods for obtaining the funds necessary for performing the contract, including payment methods, loan guarantees, advanced payments, progress payments, and contract funding.

- 1.1.6.1 **Generally Accepted Accounting Principles (GAAP)**—A technical term encompassing conventions, rules, and procedures of accounting that are “generally accepted” and have “substantial authoritative support.” The GAAP have been developed by agreement on the basis of experience, reason, custom, usage, and, to a certain extent, practical necessity rather than from a formal set of theories.
- 1.1.6.6 **Cost-Based Contracts**—Implementation of cost-based methods in commercial contracts, including time-and-materials contracts, indexed pricing, and any other arrangements subject to audit or independent verification.
- 1.1.6.7 **Fair Value**—Examines product or service features that enhance profits for the final product and the ability of a commercial firm to maintain a competitive advantage in the marketplace.
- 1.1.6.8 **Market Price**—The exchange value of a good or service, calculated with due consideration to market conditions, legal constraints, competitive pressures, and changes in market factors.
- 1.1.6.9 **Risk Management**—The methodical process used to enhance opportunities and reduce risks by identifying potential opportunities and risks, assessing associated probabilities of occurrence and impacts, and determining courses of action.
- 1.1.7 **Intellectual Property**—Property that results from the fruits of mental labor (see also 1.1.7, Intellectual Property, page 21).
  - 1.1.7.1 **Patent**—Government grant of exclusive rights to an inventor that prohibits others from making, using, or selling an invention.
  - 1.1.7.3 **Copyright**—Royalty-free, nonexclusive, and irrevocable license to reproduce, translate, publish, use, and dispose of written or recorded material and to authorize others to do so.
  - 1.1.7.6 **Trademark**—Words, symbols, devices, or designs affixed to or placed on an article or its container to identify an article offered for sale. Also includes “service marks,” which designate particular manners or modes of service delivery protected as intellectual property.
  - 1.1.7.8 **Trade Secrets**—Any information, process, or procedure used in business that may give the owner some advantage over its competitors.
  - 1.1.7.9 **Shop Rights**—The right of an employer to use, without payment of royalties, an invention conceived by an employee in the course of employment or through the use of the employer’s facilities, the employee not having been hired to perform such work.
  - 1.1.7.10 **Employment Agreement**—A contract by which one person, called the employer, engages another person, called the employee, to do something for the benefit of the employer or a third person for which the employee receives compensation. The contract may be oral or written.
  - 1.1.7.11 **Nondisclosure Agreement**—A legally binding document setting forth the conditions under which proprietary information is offered and received between the parties.

- 1.1.7.12 Ownership, Royalties, Escrow Agreement**—Legal title or right to something. Mere possession is not ownership. With ownership comes the potential of royalties for use. Royalties are rights delegated (as to an individual or corporation) by a sovereign party, including a share of the profit or product reserved by the grantor. Also includes payments made to an author or composer for each copy of a work sold or to an inventor for each article sold under a patent. Owners may also escrow assets, creating an instrument and especially a deed of money or property held by a third party to be turned over to the grantee and become effective only upon the fulfillment of some condition; a fund or deposit designed to serve as an escrow. Includes source code escrow agreements, which allow the licensee to obtain access to the software's source code under certain circumstances, as when the licensor goes out of business or fails to make required modifications to the software.
- 1.2 Acquisition Planning/Strategy**—Activities and events required to plan for and award a contract.
- 1.2.1 Acquisition Planning**—Activities and events required for both buyers and sellers to prepare for, negotiate, and form a binding contractual arrangement (see also 1.2.1, Acquisition Planning, page 22).
- 1.2.1.1 Market Research**—The process used for collecting and analyzing information about the entire market sufficient to determine the most suitable approach to acquiring, distributing, and supporting supplies and services (see also 1.2.1.1, Market Research, page 22).
- 1.2.1.10 Defining Requirements**—Process for defining and expressing requirements that meet the needs of the purchaser and representing those needs through measurable criteria.
- 1.2.1.11 Documenting Requirements**—Process for documenting requirements, validating requirements, and communicating to prospective suppliers; includes make-or-buy decisions and creation of solicitations.
- 1.2.1.12 Preaward Process: Seller**—Process by which sellers develop and execute a strategy for obtaining the award of a contract, including market strategies, pricing strategies, and responding to the procurement.
- 1.2.1.13 Preaward Process: Buyer**—Process by which buyers develop a comprehensive plan for fulfilling requirements for products or services in a timely manner at a reasonable price; includes developing an overall strategy for the purchase, which is accomplished through market research, strategy development, initiating the procurement, and selecting a supplier.
- 1.2.2 Acquisition Methodology**—Requesting or inviting offerors to submit offers, usually by issuing a solicitation. Solicitations consist of (1) a draft contract and (2) provisions on preparing and submitting offers (see also 1.2.2, Acquisition Methodology, page 23).
- 1.2.2.1 Invitation for Bids (IFB)**—A solicitation used in the sealed-bid method of procurement.
- 1.2.2.2 Request for Technical Proposal (RFTP)**—A solicitation document used in multiple-step bidding. Asks for technical information only; price and cost breakdowns are either budgetary or omitted at the RFTP stage. Used to prequalify bidders (see also 1.2.2.2, Request for Technical Proposal, page 23).

- 1.2.2.3 **Request for Proposals (RFP)**—A solicitation document used in negotiated procurements to communicate the buyer’s requirements to prospective contractors and to solicit proposals (see also 1.2.2.3, Request for Proposals, page 23).
- 1.2.2.4 **Request for Quotations (RFQ)**—A solicitation document used to request information; quotes submitted in response are typically counteroffers on seller’s terms (see also 1.2.2.4, Request for Quotations, page 23).
- 1.2.2.7 **Prequalification**—Buyer’s announcement of interest, including criteria for selecting proposals and soliciting the participation of all offerors capable of meeting requirements.
- 1.2.3 **Proposal Preparation**—Activities and events required to submit an offer or quotation, usually in response to a customer request.
  - 1.2.3.1 **Bid or No-Bid Decision**—Determination made by seller’s management regarding whether to submit an offer, usually in response to a customer request.
  - 1.2.3.2 **Technical/Management Proposal**—The part of the offer that describes the seller’s approach to meeting the buyer’s requirement.
  - 1.2.3.4 **Unsolicited Proposal**—A proposal that is made by a prospective seller without prior formal or informal solicitation from the buyer (see also 1.2.3.4, Unsolicited Proposal, page 24).
  - 1.2.3.5 **Teaming**—Agreement among two or more prospective offerors to participate jointly in a business venture (see also 1.2.3.5, Teaming, page 24).
  - 1.2.3.6 **Past Performance**—Evaluating how well offerors performed in the past in the performance of similar contracts.
  - 1.2.3.7 **Evaluation Factors**—Criteria used to evaluate offers that may include technical capability, price, past performance, and other factors. Evaluation may involve trade-offs, discretion, and examination of the products offered (see also 1.2.3.7, Evaluation Factors, page 24).
  - 1.2.3.8 **Market Strategy**—The action plan of how a company will sell its services or products. The strategy must consider the company’s business environment, its abilities and competencies, the desires of top management, and overall mission objectives. Market strategy consists of four basic concepts: market segmentation, market positioning, market entry, and marketing mix.
  - 1.2.3.9 **Risk Analysis**—Management of factors that create the possibility of loss or injury in the performance of a contract; includes all activities necessary to identify, analyze, plan, track, or control risk management activities. It also includes communication of risks and risk management internally and externally.
- 1.2.4 **Negotiation**—The process by which two or more competent parties reach an agreement to buy or sell products or services. Contract negotiations may be conducted formally or informally and may involve many people or just two—a representative for the buyer and a representative for the seller. Contract negotiation may take a few minutes or may involve lengthy discussions (see also 1.2.4, Negotiation, page 24).

- 1.2.4.3 **Negotiation Objectives**—Strategies that provide the overall framework that will guide the conduct of the negotiation; includes both win-lose and win-win strategies and all tactics and counter-tactics necessary to achieve the desired result (see also 12.4.3, Negotiation Objectives, page 25).
- 1.2.4.4 **Strategy and Tactics**—Specific methods used during negotiations to reach agreement.
- 1.2.4.5 **Adequacy of Offer/Conformance to Requirements**—Purchasing techniques that enable buyers to solicit input from multiple suppliers and create a solicitation document, taking the best from each. Accordingly, sellers are able to develop a compliance matrix that lists all solicitation and functional requirements, along with an assessment of the firm’s competitive strengths and weaknesses.
- 1.2.4.6 **Buyer-Seller Relationship**—Encompasses more than just the procurement process, because relationships are developed throughout the supply chain. The buyer-seller relationship affects quality of materials and parts, customer satisfaction, and competitive advantages of both parties.
- 1.2.5 **Source Selection**—The process wherein the requirements, facts, recommendations, and policies relevant to an award decision in a competitive procurement of a system or project are examined and the decision made.
  - 1.2.5.1 **Organization**—Structure and process by which efforts of all personnel responsible for a source selection are coordinated and integrated through a comprehensive plan for fulfilling customer need in a timely manner and at a reasonable cost. It includes developing the overall strategy for managing the source selection (see also 1.2.5.1, Organization, page 25).
  - 1.2.5.2 **Source Selection Team**—Multidisciplinary team responsible for evaluating offers and identifying the most advantageous offer through proposal evaluation, to include an assessment of both the proposal and the offeror’s ability to successfully accomplish the prospective contract.
  - 1.2.5.3 **Evaluation Process**—The activities and procedures used to evaluate offers against established selection criteria in accordance with the source selection plan.
  - 1.2.5.4 **Cost/Price Analysis**—Factors to be considered in determining pricing and financial impact of a procurement, including commodity markets, price lists, price quotations, negotiated pricing, input costs, transaction costs, relational costs, and landed costs.
  - 1.2.5.5 **Discussions**—Any oral or written communications between the buyer and the seller, other than communications conducted for the purpose of minor clarification, that (1) involve information essential for determining the acceptability of the proposals or (2) provide the offeror an opportunity to revise or modify its proposal.
  - 1.2.5.6 **Debriefing**—An explanation given by the buyer to an offeror detailing the reasons the offeror’s proposal was unsuccessful (see also 1.2.5.6, Debriefing, page 25).

- 1.2.6 **Protest**—A written objection by an interested party to (1) a solicitation or other request by an agency for offers for a contract for the procurement of property or services, (2) the cancellation of the solicitation or other request, (3) an award or proposed award of the contract, or (4) a termination or cancellation of an award of the contract, if the written objection contains an allegation that the termination or cancellation is based in whole or in part on improprieties concerning the award of the contract.
  - 1.2.6.1 **Forums**—The administrative and judicial bodies that adjudicate protests.
  - 1.2.6.2 **Alternative Dispute Resolution (ADR)**—Administrative procedures established within an agency as an alternative to outside protest forums.
  - 1.2.6.3 **Procedures**—The processes used by the administrative and judicial forums to resolve protests.
  - 1.2.6.4 **Arbitration**—The use of an impartial third party to whom the parties to an agreement refer their disputes for resolution. Some contracts contain provisions that provide for binding arbitration of unsettled grievances.
- 1.3 **Contract Administration**—The management of issues that arise during the performance of a contract.
  - 1.3.1 **Contract Performance/Quality Assurance**—A planned and systematic pattern of actions necessary to provide adequate confidence that material, data, supplies, and services conform to established technical requirements, and to achieve satisfactory performance.
    - 1.3.1.1 **Data Management**—Use of commercially available software tools to manage contract information, including repositories for contract documents, reporting systems, contracting process management, and portfolio management.
    - 1.3.1.2 **Process and Results Management**—Joint buyer-seller actions taken to successfully perform and administer a contractual agreement, including effective change management and timely contract closeout. It also includes maintaining open and effective communication, timely delivery of quality products and services, responsive corrective actions to problems, compliance with all agreed-on terms, and management of conditions and effective changes.
    - 1.3.1.3 **Reporting**—Contractually required reports provided by the seller during contract fulfillment to observe performance, collect information, and measure actual contract achievement.
    - 1.3.1.4 **Compliance System**—Information technology system that translates contract requirements (such as pricing, warranty, service requirements, and product changes) into executable instructions to internal systems. It includes connectivity to enterprise resource planning (ERP) tools and other customer-resource management tools that the organization uses to communicate internally and externally.
    - 1.3.1.5 **Inspection**—The examination (including testing) of supplies and services (including, when appropriate, raw materials, components, and intermediate assemblies) to determine whether the supplies and services conform to the contract requirements.

- 1.3.1.6 Acceptance**—The act by which an authorized buyer representative assents to ownership of existing and identified supplies, or approves specific services rendered, as partial or complete performance of a contract.
- 1.3.1.7 Warranty**—A promise or affirmation given by a seller to a buyer regarding the nature, usefulness, or condition of the supplies or performance of services furnished under the contract. Generally, a warranty’s purpose is to delineate the rights and obligations for defective items and services, and to foster quality performance.
- 1.3.1.8 Indemnification**—Contract provision whereby one party engages to secure another against an anticipated loss resulting from an act or forbearance on the part of one of the parties or some third party (see also 1.3.1.8, Indemnification, page 26).
- 1.3.1.9 International Organization for Standardization (ISO) Standards**—The families of standards consisting of standards and guidelines relating to management systems and related supporting standards on terminology and specific tools, such as auditing (the process of checking that the management system conforms to the standard).
- 1.3.1.11 Customer Service**—Interaction with the designated end users of the contracted products and services; includes actions to resolve customer complaints and facilitates use of products or access to services.
- 1.3.2 Subcontract Management**—This includes subcontracting issues and the buyer’s role in ensuring successful prime contractor interaction with subcontractors to satisfy prime contract requirements.
- 1.3.2.5 Supply Chain Function**—Management of the flow and storage of materials (raw materials, semi-finished goods, and finished products) from vendor sources through to the ultimate customer. It includes both inbound logistics (materials management and procurement) and outbound logistics (customer service and channels of distribution).
- 1.3.2.6 Supplier Goods, Services**—Management of any contract, agreement, or purchase order (and any preliminary contractual instrument other than a prime contract) calling for the performance of any work or the making or furnishing of any material required for the performance of a prime contract; includes managing the purchase of supplies that are consumed in use or become incorporated in other property, thus losing their identity.
- 1.3.2.7 Commodity Warehousing, Just in Time**—The physical holding of raw materials and commodities units against the time of use. Although the storage of materials for use in the production process is basically the same as storing finished products, raw-materials storage and finished-goods storage differ in terms of the type of facility each requires, the value of the stored items, and product perishability.
- 1.3.2.8 Production Planning and Control**—Coordination of product supply with product demand. The manufacturer must forecast customer demand and provide the finished product supply either from available inventory or by producing additional product.



- 1.3.2.9 **Specialized, Long Lead Items**—Lead time management of critical materials and deliverables. Procurement lead time starts when a material requirement is identified and spans the time until a significant portion of the material is delivered. Procurement lead time has two components: administrative lead time and production lead time. Administrative lead time begins with the identification of a material requirement and continues until a contract is awarded for the creation of the material. Production lead time is the time from contract award until material delivery. Lead time risk, therefore, is the program impact associated with the failure of material to arrive when required.
- 1.3.3 **Contract Changes/Modifications**—Include any written alteration in the specification, delivery point, rate of delivery, contract period, price, quantity, or other provision of an existing contract, accomplished in accordance with a contract clause; may be unilateral or bilateral.
  - 1.3.3.1 **Change Orders**—Written orders signed by the buyer, authorized by contract clause, to modify contractual requirements within the scope of the contract.
  - 1.3.3.2 **Supplemental Agreements**—Contract modifications that are accomplished by the mutual consent of the parties.
  - 1.3.3.3 **Constructive Changes**—Oral or written acts or omissions by employees or agents of the buyer that are of such a nature that they have the same effect as written change orders.
  - 1.3.3.4 **Administrative Changes**—Unilateral contract changes, in writing, that do not affect the substantive rights of the parties (see also 1.3.3.4, Administrative Changes, page 27).
  - 1.3.3.6 **Cardinal Change**—Change that is not within the contract’s general scope. When a contractor is faced with an out-of-scope change to its contract, it generally will not refuse the effort but, rather, will seek additional compensation. Generally, if the work performed is reasonably “within the contemplation of the parties when the contract was entered into,” it is considered to be within the scope of the contract (see also 1.3.3.6, Cardinal Change, page 27).
  - 1.3.3.7 **Delays**—Late delivery of products and services and implications to contract management; includes time requirements of obligations, impracticability, and other standards of delivery performance (see also 1.3.3.7, Delays, page 27).
  - 1.3.3.8 **Stop-Work Order**—Instruction served on the seller by the buyer requiring that the seller cease to perform the contract and take alternative steps to limit the risk and liabilities of the parties. This is usually governed by predetermined protocols set forth in the contract. In the event of such termination, the contractor must immediately stop all work and immediately cause any and all of its suppliers and subcontractors to stop all work (see also 1.3.3.8, Stop-Work Order, page 28).
- 1.3.5 **Transportation**—Application of transportation and traffic management considerations in the acquisition of supplies and transportation-related services.
  - 1.3.5.1 **Modes of Transportation**—Means of moving freight traffic using transportation methods such as bills of lading, parcel post, bus service, air cargo, rail freight, carload and less than carload, motor freight, freight forwarder, and pipeline.

- 1.3.5.2 **Transportation-Related Services**—Procedures for the acquisition of related services such as stevedoring, storage, packing, marking, and ocean freight forwarding.
- 1.3.5.3 **Free On Board (FOB)**—Domestic transportation of goods in the United States, including documentation necessary to govern, direct control of, and provide information about a shipment; includes bill of lading, freight bills, claims, and FOB terms of sale (see also 1.3.5.3, Free On Board, page 28).
- 1.3.6 **Disputes**—Disagreements between the parties regarding their rights under a contract.
  - 1.3.6.1 **Forums**—Administrative and judicial bodies that adjudicate disputes.
  - 1.3.6.2 **Alternative Dispute Resolution (ADR)**—Any procedure that is used, in lieu of litigation, to resolve issues in controversy, including but not limited to settlement negotiations, conciliation, facilitation, mediation, fact finding, mini-trials, and arbitration.
  - 1.3.6.5 **Relationship Management**—Actions of the contracting parties to mutually resolve disagreements about the correct interpretation of terms and conditions without recourse to litigations or arbitration.
  - 1.3.6.6 **Arbitration**—Any nonjudicial method of resolving civil disputes; informal and voluntary in most cases (see also 1.3.6.6, Arbitration, page 28).
- 1.3.7 **Contract Closeout**—The process of declaring that the obligations under a contract have been satisfied and that a procurement file is both physically and administratively complete (see also 1.3.7, Contract Closeout, page 29).
  - 1.3.7.1 **Payment**—Fulfillment of financial obligations of the contract; includes consideration, exchanges, compromise and release of claims, part-payment, and forbearance.
  - 1.3.7.2 **Liability Costs, Warranty, Service Life, Protection, Risk**—Remedies and recourse in resolution of contract performance issues, including limitations of remedies, liquidated damages, limitation of liability, breach, and damages.
  - 1.3.7.3 **Records Retention**—Controls over the creation, maintenance, and use of records relating to a contract; includes determining a period of active access and procedures for disposition of records at the end of that period, either by destruction or by retirement to archives (see also 1.3.8.3, Records Retention, page 29).
  - 1.3.7.4 **Outsourcing of Contract Management**—Contract administration and other business processes through long-term agreements; includes Business Process Outsourcing (BPO) of functional responsibilities for human resources, finance and accounting, procurement, and Information Technology (IT).
- 1.3.8 **Contract Termination**—Actions taken pursuant to a contract clause in which either party exercises a legal right to terminate the contract.

- 1.3.8.1 **Bilateral/Notice**—Termination of a contract by mutual consent. Typically initiated by one party by notice of the exercise of a contractual right to termination based on particular circumstances. Generally, both the circumstances permitting the termination and the process for termination are predetermined in the contract.
- 1.3.8.2 **Unilateral/Nonperformance**—Termination of a contract by one of the parties. Right to terminate, notice required, and procedures for termination are typically specified in the contract. Most commonly, this is available as a remedy for nonperformance by the seller or failure to pay by the buyer.
- 1.4 **Specialized Knowledge Areas**—Additional professional skills that are necessary for contracts managers to either (1) perform efficiently and effectively in a specific industry or work environment (e.g., construction) or (2) interact productively with other specialized professionals (e.g., finance) (see also 1.4, Specialized Knowledge Areas, page 29).
  - 1.4.1 **Research and Development (R&D)**—Effort that constitutes either research or development or both.
    - 1.4.1.1 **R&D Contract**—A contract for basic research (directed toward improving or expanding new scientific discoveries, technologies, materials, processes, or techniques), or development (directed production of, or improvements in, useful products to meet specific performance requirements through the systematic application of scientific knowledge).
    - 1.4.1.2 **Grant**—Legal instrument for transferring money, property, or services to the recipient to accomplish a specific purpose of support or stimulation where there is no substantial involvement between the grantor and the recipient during performance.
    - 1.4.1.3 **Cooperative Agreement**—Legal instrument used principally for transferring money, property, or services between or among the parties to accomplish a specific purpose of support or stimulation where substantial involvement and cooperation are expected between or among the parties (see also 1.4.1.3, Cooperative Agreement, page 30).
    - 1.4.1.4 **Independent Research and Development (IR&D)**—Effort that is neither sponsored by a grant nor required in performing a contract and which falls within any of the following four areas: (1) basic research, (2) applied research, (3) development, and (4) systems and other concept formulation studies that are pursued independently by an organization to further a specific business purpose (see also 1.4.1.4, Independent Research and Development, page 30).
  - 1.4.2 **Architect and Engineer (A&E) Services and Construction.**
    - 1.4.2.2 **Construction Contracts**—Construction means alteration of the landscape, assembly and fitting out of structures, installation of furnishings and fixtures, decoration, or repair of real property (see also 1.4.2.2, Construction Contracts, page 30).
    - 1.4.2.3 **Design/Build**—A method of construction contracting that combines the architectural, engineering, and construction services required for a project into a single agreement (see also 1.4.2.3, Design/Build, page 30).

- 1.4.2.6 Architect and Design Services**—Professional services of an architectural or engineering nature that are required to be performed or approved by a person licensed, registered, or certified to provide such services or are associated with research, planning, development, design, construction, alteration, or repair of real property, or other related professional services such as studies and surveys.
- 1.4.3 Information Technology (IT)**—Includes the acquisition of IT hardware, software, telecommunications, and related resources (see also 1.4.3, Information Technology, page 31).
- 1.4.3.1 Network Systems**—Systems that transmit any combination of voice, video, and/or data between users. The network includes the network operating system in the client and server machines, the cables connecting them, and all the supporting hardware in between, such as bridges, routers, and switches. In wireless systems, antennas and towers are also part of the network. In general, the network is a collection of terminals, computers, servers, and components that function in relation to each other to allow for the easy flow of data and use of resources among the interrelated entities (see also 1.4.3.1, Network Systems, page 31).
- 1.4.3.2 Telecommunications**—The branch of electrical engineering concerned with the technology of electronic communication at a distance. It includes systems of hardware and software used to carry voice, video, and/or data; includes telephone wires, satellite signals, cellular links, coaxial cable, and so on, and related devices (see also 1.4.3.2, Telecommunications, page 31).
- 1.4.3.3 Electronic Commerce**—Marketing goods and services over the Internet by exchanging information between buyers and sellers, while in the process minimizing paperwork and simplifying payment procedures; includes both Business-to-Consumer (B2C) and Business-to-Business (B2B) transactions (see also 1.4.3.3, Electronic Commerce, page 31).
- 1.4.3.4 Enterprise Resource Planning (ERP) System**—Any software system designed to support and automate the business processes of medium and large businesses. This may include manufacturing, distribution, personnel, project management, payroll, and financials. ERP systems are accounting-oriented information systems for identifying and planning the enterprisewide resources needed to take, make, distribute, and account for customer orders (see also 1.4.3.4, Enterprise Resource Planning System, page 31).
- 1.4.3.5 Seat Management (SEAT)**—An integrated approach to delivering end user computing services under a single offering. It is a method of coordinating all of the workstations in an enterprise network and includes the installation, operation, and maintenance of hardware and software at each workstation. It offers desktop computers, servers, peripherals, networking, and support services for general purpose and scientific and engineering environments. Seat management is typically provided on a fixed monthly fee per user or “per seat” basis for the equipment and services selected. A “seat” is a workstation or terminal that can be operated by one user at a time. The service also creates efficiencies and mitigates risk through standardization and unification of procedures (see also 1.4.3.5, Seat Management, page 31).
- 1.4.4 Major Systems**—A combination of elements that function together to produce the capabilities required to fulfill a mission need, including hardware, equipment, software, or any combination of these.

- 1.4.4.1 **System Acquisition Process (life cycle)**—The sequence of acquisition activities starting from the agency’s reconciliation of its mission needs with its capabilities, priorities and resources, and extending through the introduction of a system into operational use or the otherwise successful achievement of program objectives.
  
- 1.4.4.2 **Program Management**—The process whereby a single leader and team are responsible for planning, organizing, coordinating, directing, and controlling the combined efforts of participating and assigned personnel and organizations in accomplishment of program objectives. It is a special management approach used to provide centralized authority and responsibility for the management of a specific program.
  
- 1.4.4.3 **Program Manager–Contracting Officer Relationship**—The respective authority and responsibilities of the program manager, who is in overall charge of executing a program or project, and the contracts manager, who has fiduciary responsibilities for the negotiation and formation of the contract and for compliance and conformance to contractual obligations (see also 1.4.4.3, Program Manager–Contracting Officer Relationship, page 32).
  
- 1.4.5 **Service Contracts**—Contracts that directly engage the time and effort of a contractor whose primary purpose is to perform identifiable tasks rather than furnish an end item of supply.
  
- 1.4.5.2 **Consulting**—The process of providing subject matter expertise to one who needs such knowledge. The knowledge may be provided in the form of either verbal or written advice. In addition, the consulting may provide the customer with some form of deliverable (e.g., written report, project plans, or—in the case of information technology consulting—a program that addresses a particular need of the client). Consulting services may be paid for in a number of ways. Two common means for determining a consultant’s fee are (1) time and materials, and (2) fixed fee (see also 1.4.5.2, Personal Services, page 32).
  
- 1.4.5.8 **Time and Materials**—One common way to pay for consulting services. When using this method of calculating payment, the consultant is paid for any time he devotes to the needs of a client. The consultant is typically paid for each hour he logs to a client’s project. In addition, the consultant is generally paid for any expenses he incurs on behalf of the client (e.g., travel, engagement-specific tools or materials, copy services, etc.). All of the aforementioned items may either be limited or expanded (e.g., authorization of air travel in first class versus coach) by the specific contract entered into between the consultant and the client. This form of consulting places virtually all the risk on the client (as opposed to the consultant). That is to say, the client typically has a budget for a specific task. The client is betting that the consultant can complete the assigned work within that budget. However, the consultant is typically under no such obligation, and the bill for the consultant’s time may well exceed the client’s projected budget (see also 1.1.4.6.1, Cost Incentives, page 18).

- 1.4.5.9 Outsourcing**—A specialized form of consulting. When a client elects to outsource, the client generally turns a specific task over to a consultant. In the computer industry, this task might be to run a data center. The client is concerned with “what” is outsourced (in this example, running a data center). The client is typically not concerned with “how” the operation occurs. The client is hiring the consultant to provide this service based on the consultant’s expertise in the following areas: process, people, and technology to perform the outsourced task. This type of service is normally contracted for on a fixed-fee basis, in which the client pays a flat fee per month for a given service. Therefore, the vast majority of the financial risk is shifted from the client to the consultant. If the consultant can effectively and efficiently provide the service, the consultant will realize a profit. Conversely, if the consultant is either ineffective or inefficient, the consultant still has to deliver the contracted deliverable for service—however, the consultant will be doing so at the consultant’s loss (see also 1.4.2.4, Outsourcing, page 30).
- 1.4.6 International Contracting**—Includes the policies and procedures that govern the acquisition and sale of goods and services on a global basis.
- 1.4.6.1 Agreements and Restrictions**—Agreements between and among nations regarding international procurement. These include the General Agreement on Tariffs and Trade (GATT), the GATT Government Procurement Code, the North American Free Trade Agreement (NAFTA), as well as bilateral agreements that have been negotiated between and among nations (see also 1.4.6.1, Agreements and Restrictions, page 33).
- 1.4.6.2 Export Controls**—The comprehensive set of controls that have been established to protect national security interests and foster foreign policy initiatives. The Department of State monitors and controls the export and re-export of goods and services in accordance with the International Traffic in Arms Regulations (ITAR), and the Department of Commerce Export Administration Regulation (EAR) enforces the Export Administration Act.
- 1.4.6.4 Global Issues**—A corporate framework for conducting international business, including evaluation of objectives, strengths, and weaknesses as well as development of strategies for product development and marketing.
- 1.4.6.5 INCO Terms**—Internationally recognized terms of sale that define responsibilities of both the buyer and the seller in any international transaction, codified into 13 distinct categories.
- 1.4.7 State and Local Government (S&L)**—Includes the policies and procedures that govern the purchase and sale of goods and services at the state and local government levels.
- 1.4.7.1 Authority**—The sources from which S&L government entities derive empowerment to engage in procurement activities, and that set forth the framework, parameters, and extent of their empowerment. Such authority includes state statutes, state and local regulations, charters, local ordinances, and administrative resolutions, policies, or edicts.
- 1.4.7.2 Organization**—The administrative and personnel structure that reflects the organizational patterns, procurement authority, and scope of activities of its various elements. It may include boards, commissions, or committees and may reflect a delegation’s exemptions, as well as full or limited authority to act (see also 1.4.7.2, Organization, page 33).

- 1.4.7.3 **Intergovernmental Relations**—Cooperative activities among governments, including various forms of intergovernmental cooperative purchasing, joint or shared use of facilities and supplies, and procurements made by one government from another.
- 1.4.8 **Supply Chain**—see 1.4.8, page 33.
- 1.4.8.1 **Supply Chain Management**—see 1.4.8.1, page 33.
- 1.5 **General Business**—Includes those portions of other disciplines relevant to contract management (see also 1.5 and subsequent, General Business, page 33).
- 1.5.1 **Management**—The art and science of the processes of planning, organizing, staffing, directing, and controlling the affairs of the organization.
  - 1.5.1.1 **Principles**—The methods and operation of the processes of management.
  - 1.5.1.2 **Systems and Processes**—The arrangement of things so connected or related as to form a whole, generally involving a number of steps or operations.
  - 1.5.1.3 **Human Relations**—Individual, interpersonal, group behavior, and human problems in the work environment.
  - 1.5.1.4 **Organizational Behavior**—Human behavior as it influences organizational efficiency and effectiveness.
  - 1.5.1.5 **Organizational Communication**—Focuses on the processes of communication ranging from that between two persons to that of the total organization.
- 1.5.2 **Marketing**—The activity that directs the flow of goods and services from the producer to the user.
  - 1.5.2.1 **Organizational/Industrial Marketing**—The activity of marketing directed toward organizations rather than individual consumers; includes research, product planning and development, distribution, promotion, and pricing.
  - 1.5.2.2 **Product/Service Planning**—The process of defining the product or service that satisfies the needs of clients and customers.
  - 1.5.2.3 **Promotion**—The process of publicizing the attributes of the product or service through media and personal contacts and presentations (e.g., technical articles and presentations, news releases, advertising, and sales calls).
  - 1.5.2.4 **Pricing**—Strategies for pricing products such as market-based pricing or cost-based pricing.
- 1.5.3 **Operations Management**—Includes the concepts, techniques, and practices used in managing the operations of an organization.
  - 1.5.3.1 **Production/R&D/Services**—Operational strategies, system design, capacity planning, scheduling, and quality.

- 1.5.3.2 **Logistics**—Inventory management, transportation and traffic, and distribution supporting the product or service mission of the organization.
- 1.5.3.3 **Procurement**—Acquiring the goods and services supporting the missions of the organization; includes developing and maintaining relationships with suppliers and internal customers.
- 1.5.4 **Finance**—Managing the money matters of the organization.
  - 1.5.4.1 **Corporate**—Concepts and techniques of asset financing, capital investment, taxes, investor relations, risk and return, cost of capital, and cash management.
  - 1.5.4.2 **Financial Reporting**—Includes financial statements, sales forecasting, planning, and control.
  - 1.5.4.3 **Financial Analysis**—Includes international financial analysis, return on assets, return on investment, asset turnover, and variance analysis.
  - 1.5.4.4 **Forecasting**—An estimate of financial position, results of operations, and changes in cash flows for one or more future periods based on a set of assumptions representing the most probable outcomes. If the assumptions are not necessarily the most likely outcomes, the estimate is called a “projection.”
  - 1.5.4.5 **Cash Budgeting**—A schedule of expected cash receipts and disbursements for a designated period. The primary reason for a cash budget is to forecast a company’s future financing needs. A cash budget is also used to avoid either unnecessary idle cash or possible cash shortages. In the case of cash shortage, it indicates whether the shortage is temporary or permanent (i.e., whether short-term or long-term borrowing is needed).
  - 1.5.4.6 **Break Even Analysis**—A means of determining the number of goods or services that must be sold at a given price to generate sufficient revenue to cover costs.
  - 1.5.4.7 **Working Capital**—The excess of current assets over current liabilities that represents a company’s financial liquid resources to meet demands of the operating cycle.
  - 1.5.4.8 **Capital Budgeting**—The process of planning for the best selection and financing of long-term investment proposals, taking into account the time value of money.
  - 1.5.4.9 **Leases**—Rental agreements in which the lessor conveys to the lessee the right to use the lessor’s personal or real property, usually in exchange for a payment of money.
  - 1.5.4.10 **Export Financing**—Financing of international transactions in the exporting or importing of products and services. Addresses factors such as transit times, customs regulations, banking rules and regulations, buyer and seller credit, exchange rates, and political risk.



- 1.5.4.11 **Revenue Recognition**—The process of formally recording or incorporating a revenue item in the accounts and financial statements of an entity. The revenue recognition principle provides that revenue is recognized when (1) it is realized or realizable and (2) it is earned. Revenues are realized when goods and services are exchanged for cash or claims to cash (receivables). Revenues are realizable when assets received in exchange are readily convertible to known amounts of cash or claims to cash. Revenues are earned when the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues; that is, when the earnings process is complete or virtually complete.
- 1.5.4.12 **Overhead**—Any necessary cost not directly associated with the production or sale of identifiable goods or services.
- 1.5.4.13 **General and Administrative (G&A)**—A subcategory of overhead; includes costs necessary for overall management and operations but not directly associated with a specific cost objective or business segment. Typical G&A costs include sales staff salaries, insurance, executive compensation, and central office expenses.
- 1.5.5 **Accounting**—The principles and practices of systematically recording, presenting, and interpreting financial data.
  - 1.5.5.1 **Managerial**—Includes the controllership function of organizations (public and private) in the development of policy and evaluation of performance.
  - 1.5.5.2 **Cost**—Includes the accounting system design for recording, accumulating, and reporting costs for specific products and services.
  - 1.5.5.3 **Auditing**—The examination and review of operations for compliance with corporate policies.
  - 1.5.5.4 **Budgeting**—The planning, scheduling, and budgeting of organizational expenses for the fiscal period.
- 1.5.6 **Economics**—The study of the problems arising when goods and services are scarce, relative to human desires for those goods and services.
  - 1.5.6.1 **Principles**—Concepts of supply and demand, operation of the free market system, financial markets, and the country's role in the world economy.
  - 1.5.6.2 **Managerial**—Concerned with the application of economic analysis to business management, interpreting trends and developments, and forecasting.
  - 1.5.6.3 **Micro**—Particular market quantities (e.g., a commodity price, output of a company, wages of specific industry) rather than totals of the economy.
  - 1.5.6.4 **Macro**—Overall quantities such as total national income and output, the general price level, total employment, and total investment.
- 1.5.7 **Quantitative Methods**—Scientific tools used in the analysis of practical business problems in decision making.

- 1.5.7.1 **Statistics**—Tools that include descriptive statistics, probability theory, probability and sampling distribution, inference estimation, and hypothesis testing.
- 1.5.7.2 **Deterministic Models**—These models include linear programming and geometric programming.
- 1.5.7.3 **Stochastic Models**—These models include regression and correlation, and analysis of variance.
- 1.5.8 **Information Science**—Focuses on the technical, managerial, and policy issues associated with computer-based information systems in modern organizations.
  - 1.5.8.1 **Information Management**—Includes activities associated with applications of information science to the practical aspects of specifying, designing, implementing, and managing information systems.
  - 1.5.8.2 **Programming**—Concerned with data structures and algorithms applied in programming solutions to problems.
  - 1.5.8.3 **Database Management**—Includes data modeling, query languages, and transaction processing.
  - 1.5.8.4 **Applications Software**—Software applications relevant to contract management, including enterprise resource planning (ERP), customer relationship management (CRM), supply chain automation, sales force automation, and electronic contract management (eCM).
  - 1.5.8.5 **E-Procurement**—Use of IT and systems in the procurement process. Focuses on the four basic types of e-commerce business models used in procurement: sell-side system, electronic marketplace, buy-side system, and on-line trading community.

## Part III

### **NCMA Certification Examinations**

In conjunction with the CMBOK updates, NCMA is developing certification examinations. The current examination format consists of multiple-choice questions. Former CACM candidates will recognize this type of examination. Former CPCM candidates, who are familiar with an essay-style exam, will need to familiarize themselves with this new format.

Many people assume that multiple-choice questions are easy to answer because they have had experience with tests that are not psychometrically sound. This means that every test question has undergone the full rigor of educational and statistical testing necessary to ensure that it elicits the exact response desired, that it is unambiguous, and that it has only one correct answer. However, three other plausible possible answers will separate those who know and understand the material from those who don't. Furthermore, multiple-choice testing can test more than simple recall of facts and recognition of words. It can test for understanding of content and for responses that indicate application of principles to a situation.

The benefits of a multiple-choice examination lie in the objective assessment of question answers. There is no scope for alternative interpretation of results. That is not to say that every question is perfect. Rather, the multiple-choice format has the flexibility that allows NCMA, working in conjunction with psychometricians, or test developers, to change the examination and make every question a fair, valid, and reliable one.

Using a computer-based multiple-choice examination allows NCMA to provide candidates with their results before they leave the testing site. Although this will not happen during the beta phase of the program, it does improve immeasurably on the four-month wait for results that CPCM candidates currently must endure.

An additional benefit is that candidates may schedule an exam anonymously. They may simply tell their office colleagues they will be out on that day and take the exam without peer pressure. When the candidates pass, they can share the news with their colleagues, but they no longer need to admit failure in an open forum.

Multiple-choice questions allow for a wider sampling of the body of knowledge. On the one hand, this means that candidates are bound to find areas with which they are familiar. On the other hand, it means that candidates may be unsure exactly where to concentrate their study. However, candidates should feel confident that the examination will ask only those questions that determine whether a contract manager has the knowledge to be a good practitioner. NCMA will not be testing on extraneous or trivial matter.

The computer has hastened the acceptance of multiple-choice examinations. Familiarity with this style of testing begins as early as elementary school. Because the future contract management community is in the hands of the demographic strata of the population that has either grown up with or grown familiar with computers, this style of testing will gain even wider acceptance. Furthermore, because multiple-choice examinations lend themselves to computer delivery, test developers can readily discern trends and make judgments about the examination or the underlying practice. In either case, the examination can be changed to correct or reflect the practice.

An examination delivered via computer can be delivered to many more people than can an examination that is graded by hand and by volunteer experts. In the latter case, the population can avail itself of an examination opportunity that is constrained by limited resources. With computers, examinations can be delivered and scored continuously, with the limiting factor being the number of computers to which the exam is delivered. The new program, while unable to offer worldwide 24-7 testing opportunities, will vastly increase the capacity of the program. This will allow NCMA to bring the certification program to those outside the membership community who may not previously have been aware of the program. This expansion will increase the influence of NCMA, increase the testing pool, and improve the chance that changes to the practice will be readily noticed. And, thus, it will change the examinations to reflect the practice, which will increase the validity, reliability, and influence of the program.

Using the results of the testing program, NCMA will be better positioned to provide its membership, and the entire contract management community, with the education and information they need, almost as soon as they need it. NCMA is working toward an examination that will cause candidates to say, "That was a tough exam; it really made me think about what I do."

### **The Anatomy of a Multiple-Choice Question**

A multiple-choice question has its own terminology. The question itself is called the "stem." The stem should contain all the information needed to provide the correct answer. The stem should be phrased in clear, unambiguous language that will leave no doubt what is being asked. A knowledgeable candidate should be able to discern the correct answer upon reading only the stem.

The answers also have specific terminology. The correct answer is the key, and the other possible answers are the distractors. The key is the only correct answer; no other answer should be able to be construed as correct. The distractors are plausible answers only to those who don't know the correct answer.

### **How to Study**

Given that the examinations will now sample a wider slice of the body of knowledge, how should a candidate prepare? First of all, candidates should relax. Examinations will not include "everything but the kitchen sink." Rather, the examinations will reflect the sum of the eligibility requirements and current contract management practice.

Self-assessment is the first step to a study program. Does the candidate work well in a group or alone? Given the CMBOK, are there areas about which the candidate has little or no knowledge? Are there areas that the candidate is confident enough to teach to others? In a review program, the areas where the candidate is lacking would be the first areas of study. The areas where the candidate is confident would be areas of less intense concentration.

Even working alone, it is good to have a study plan. For example, candidates might plan to study one hour on a weekend for the next eight weeks, or three hours per week during the day for the next six weeks. Even as little as half an hour of study can help candidates gain knowledge and increase comprehension.

An alternative study method would be to join a group—for example, a group of office colleagues or a study group at the chapter level. NCMA chapters have provided study groups to hundreds of examination candidates. Study groups successfully allow for multiple points of view, as well as for sharing information and resources. Furthermore, chapter study group sessions are often lead by experts in the field. In terms of time spent, expert information beats informed research almost any day. Candidates may contact their local chapters for study group information. Chapters may be accessed through the NCMA Web site by clicking on the Membership button and selecting "Chapter Information" from the menu list.

## Test Specifications for Certification Examination

Certification candidates must take and pass examinations consisting of multiple-choice questions. The distribution of certification examination questions is explained below. The CMCAB developed this distribution with the aid of a team of psychometricians and from the results of the body of knowledge revision. This includes research, the input of subject matter experts, and the results of surveys.

The answers to the questions in the examination are based on common terms and concepts found in publications, including this guide, readily available and normally found in public libraries, Web sites, or through NCMA.

The Table of Specifications is the blueprint for constructing an exam (see Table 1). When constructing an exam, the number of items or questions devoted to a task or topic is determined by the relative importance of a task or topic. The NCMA Table of Specifications tasks are based on the recently revised CMBOK. A survey was used to identify tasks that contract managers engage in most often. "Very high frequency tasks" were defined as those activities to which 50 percent of contract managers devote more than 15 percent of their time. "High frequency tasks" were defined as those activities to which at least 20 percent of contractors devote 10 percent to 15 percent of their time. On the revised NCMA exams, relatively more items will be devoted to "high frequency" and "very high frequency" items. The NCMA Table of Specifications on the following pages lists all the CMBOK tasks that were identified as commercial and federal competencies. "High frequency tasks" are highlighted in italicized print and "very high frequency tasks" are highlighted in boldface print.

**Table 1. NCMA Table of Specifications**

Please note that not all competencies are directly applicable to both commercial and federal areas. Where they are comparable, the numbering system remains the same; where they diverge, the numbering system reflects that divergence and should not be used to prioritize the importance of each area.

**Boldface** = very high frequency task; *Italics* = high frequency task.

| Task         |  |  |
|--------------|--|--|
| Number       | Commercial Competencies                              | Federal Competencies                                       |
| <b>1.1</b>   | <b>CONTRACT PRINCIPLES</b>                           | <b>CONTRACT PRINCIPLES</b>                                 |
| <b>1.1.1</b> | <b>STANDARDS OF CONDUCT</b>                          | <b>STANDARDS OF CONDUCT</b>                                |
| 1.1.1.1      | <i>Ethics</i>  | <i>Ethics</i>  |
| 1.1.1.2      | <i>Conflict of Interest</i>                          | <i>Conflict of Interest</i>                                |
| 1.1.1.3      | <i>Improper Practices</i>                            | <i>Improper Practices</i>                                  |
| 1.1.1.4      | <i>Corporate Responsibility and Personal Conduct</i> | <i>Corporate Responsibility and Personal Conduct</i>       |
| 1.1.1.5      | <i>Liability</i>                                     | <i>Liability</i>   |
| 1.1.1.6      |  | <i>Delegation of Authority</i>                             |
| 1.1.1.7      |  | <i>Apparent Authority</i>                                  |
| 1.1.1.9      | Fraud  | Fraud  |
| <b>1.1.2</b> | <b>LAWS AND REGULATIONS</b>                          | <b>LAWS AND REGULATIONS</b>                                |
| 1.1.2.1      | Contract Formation                                   | Contract Formation   |
| 1.1.2.2      |  | Agency   |
| 1.1.2.3      | Uniform Commercial Code                              | Uniform Commercial Code                                    |
| 1.1.2.4      |  | <i>Federal Statutes</i>                                    |
| 1.1.2.5      |  | <b>Federal Regulations</b>                                 |
| 1.1.2.6      |  | Other Policies and Guidelines                              |
| 1.1.2.7      | Common Law   |  |
| 1.1.2.8      | State Differences and Jurisdictional Issues          |  |
| 1.1.2.9      | <b>Insurance Law</b>                                 |  |
| 1.1.2.10     | U.S. Securities and Exchange Commission (SEC)        |  |
| 1.1.2.11     | Finance  |  |
| 1.1.2.12     | Trade  |  |
| <b>1.1.3</b> | <b>SOCIOECONOMIC PROGRAMS</b>                        | <b>SOCIOECONOMIC PROGRAMS</b>                              |
| 1.1.3.1      |  | Labor Surplus Area   |
| 1.1.3.2      |  | Environmental Issues                                       |
| 1.1.3.3      | Labor Laws   | Labor Laws   |
| 1.1.3.4      | Diversity  | Diversity  |
| 1.1.3.5      |  | Small Business   |
| 1.1.3.6      |  | Small and Disadvantaged Business Concerns                  |
| 1.1.3.7      |  | Woman-Owned, Native-American-Owned, Veteran-Owned Business |
| 1.1.3.8      |  | HubZone  |
| 1.1.3.9      | Employment   |  |
| 1.1.3.10     | Accessibility  |  |

| 1.1.4      | CONTRACT STRUCTURES                | CONTRACT STRUCTURES   |
|------------|------------------------------------|---|
| 1.1.4.1    |                                    | <i>Fixed Price</i>  |
| 1.1.4.1.1  |                                    | Firm Fixed Price  |
| 1.1.4.1.2  |                                    | Firm Fixed Price with Economic Price Adjustment   |
| 1.1.4.1.3  |                                    | Fixed Price Incentive   |
| 1.1.4.1.4  |                                    | Fixed Price with Prospective Price Redetermination  |
| 1.1.4.1.5  |                                    | Fixed Price with Retroactive Price Redetermination  |
| 1.1.4.1.6  |                                    | Firm Fixed Price, Level-of-Effort Term  |
| 1.1.4.2    |                                    | Cost Reimbursement  |
| 1.1.4.2.1  |                                    | Cost Contract   |
| 1.1.4.2.2  |                                    | Cost-Sharing Contract   |
| 1.1.4.2.3  |                                    | Cost Plus Incentive Fee   |
| 1.1.4.2.4  |                                    | Cost Plus Award Fee (CPAF) Contract   |
| 1.1.4.2.5  |                                    | Cost Plus Fixed Fee (CPFF) Contract   |
| 1.1.4.3    |                                    | Agreements  |
| 1.1.4.3.1  |                                    | Basic Agreement   |
| 1.1.4.3.2  |                                    | Basic Ordering Agreement  |
| 1.1.4.4    |                                    | <i>Other Types</i>  |
| 1.1.4.4.1  |                                    | Time-and-Materials Contract   |
| 1.1.4.4.2  |                                    | Labor-Hour Contract   |
| 1.1.4.4.3  |                                    | Letter Contract   |
| 1.1.4.5    |                                    | <i>Indefinite Delivery/Indefinite Quantity Contract (IDIQ)/<br/>Governmentwide Agency Contract (GWAC)</i> |
| 1.1.4.5.1  |                                    | Delivery Order Contract   |
| 1.1.4.5.2  |                                    | Task Order Contract   |
| 1.1.4.5.3  |                                    | Definite Quantity Contract  |
| 1.1.4.5.4  |                                    | Requirements Contract   |
| 1.1.4.5.5  |                                    | Indefinite Quantity Contract  |
| 1.1.4.6    |                                    | <i>Incentive Contracts</i>  |
| 1.1.4.6.1  |                                    | Cost Incentives   |
| 1.1.4.6.2  |                                    | Performance Incentives  |
| 1.1.4.6.3  |                                    | Delivery Incentives   |
| 1.1.4.6.4  |                                    | Multiple-Incentives Contract  |
| 1.1.4.6.5  |                                    | Fixed Price Incentive Contract  |
| 1.1.4.6.6  |                                    | Fixed Price Incentive (Firm Target) Contract  |
| 1.1.4.6.7  |                                    | Fixed Price Incentive (Successive Targets) Contract   |
| 1.1.4.6.8  |                                    | Fixed Price Contract with Award Fees  |
| 1.1.4.6.9  |                                    | Cost-Reimbursement Incentive Contract   |
| 1.1.4.6.10 |                                    | Cost Plus Incentive Fee Contract  |
| 1.1.4.6.11 |                                    | CPAF Contract   |
| 1.1.4.7    |                                    | <i>Broad Agency Announcement (BAA)</i>  |
| 1.1.4.8    | Formal and Informal Contracts      |   |
| 1.1.4.9    | Unilateral and Bilateral Contracts |   |
| 1.1.4.10   | Implied, Express, Quasi Contracts  |   |
| 1.1.4.11   | Electronic, Web-based, Clickware   |   |
| 1.1.4.12   | Use of Trade/Course of Dealing     |   |

| <b>1.1.5 CONTRACTING METHODS</b>   |   | <b>CONTRACTING METHODS</b>                      |
|------------------------------------|---|---|
| 1.1.5.1                            |   | Sealed Bidding                                  |
| 1.1.5.2                            |   | Two-Step Sealed Bidding                         |
| 1.1.5.3                            |   | Negotiations                                    |
| 1.1.5.4                            |   | Simplified Acquisitions                         |
| 1.1.5.5                            |   | Federal Supply Schedules                        |
| 1.1.5.6                            |   | Electronic Commerce                             |
| 1.1.5.7                            |   | Modular Contracts                               |
| 1.1.5.8                            |   | Auctions  |
| 1.1.5.9                            |   | Request for Information (RFI)                   |
| 1.1.5.10                           |   | Unsolicited Proposal                            |
| 1.1.5.11                           |   | Alpha Contract                                  |
| 1.1.5.12                           |   | Innovative Contracting Methods                  |
| 1.1.5.13                           | Point of Sale Transactions                      |   |
| 1.1.5.14                           | Master Agreements                               |   |
| 1.1.5.15                           | Sales Contracts                                 |   |
| 1.1.5.16                           | Framework Pricing Agreement                     |   |
| 1.1.5.17                           | Performance-Based Contract                      |   |
| 1.1.5.18                           | Competitive Bidding/Negotiation                 |   |
| 1.1.5.19                           | Single-Source Negotiation                       |   |
| 1.1.5.20                           | Gap Fillers                                     |   |
| <b>1.1.6 CONTRACT FINANCING</b>    |   | <b>CONTRACT FINANCING</b>                       |
| 1.1.6.1                            | Generally Accepted Accounting Principles (GAAP) | Generally Accepted Accounting Principles (GAAP) |
| 1.1.6.2                            |   | Cost Principles                                 |
| 1.1.6.3                            |   | Cost Accounting Standards (CAS)                 |
| 1.1.6.4                            |   | Payments  |
| 1.1.6.5                            |   | Audit   |
| 1.1.6.6                            | Cost-Based Contracts                            |   |
| 1.1.6.7                            | Fair Value                                      |   |
| 1.1.6.8                            | Market Price                                    |   |
| 1.1.6.9                            | Risk Management                                 |   |
| <b>1.1.7 INTELLECTUAL PROPERTY</b> |   | <b>INTELLECTUAL PROPERTY</b>                    |
| 1.1.7.1                            | <i>Patent</i>                                   | <i>Patent</i>                                   |
| 1.1.7.2                            |   | <i>Data</i>                                     |
| 1.1.7.3                            | <i>Copyright</i>                                | <i>Copyright</i>                                |
| 1.1.7.4                            |   | <i>Licensing</i>                                |
| 1.1.7.5                            |   | <i>Royalties</i>                                |
| 1.1.7.6                            | <i>Trademark</i>                                | <i>Trademark</i>                                |
| 1.1.7.7                            |   | <i>Data Rights</i>                              |
| 1.1.7.8                            | Trade Secrets                                   | Ownership                                       |
| 1.1.7.9                            | Trade Secrets                                   | Trade Secrets                                   |
| 1.1.7.10                           | Shop Rights                                     |   |
| 1.1.7.11                           | Employment Agreement                            |   |
| 1.1.7.12                           | Nondisclosure Agreement                         |   |
| 1.1.7.13                           | Ownership, Royalties, Escrow Agreement          |   |



| <b>1.2 ACQUISITION PLANNING/STRATEGY</b> |   | <b>ACQUISITION PLANNING/STRATEGY</b>             |
|--|---|--|
| <b>1.2.1 ACQUISITION PLANNING</b>        |   | <b>ACQUISITION PLANNING</b>                      |
| 1.2.1.1                                  | <i>Market Research</i>                        | <i>Market Research</i>                           |
| 1.2.1.2                                  |   | <i>Acquisition Strategy</i>                      |
| 1.2.1.3                                  |   | <i>Acquisition Plan</i>                          |
| 1.2.1.4                                  |   | <i>Source Selection Plan</i>                     |
| 1.2.1.5                                  |   | <i>Statement of Work (SOW)</i>                   |
| 1.2.1.6                                  |   | <i>Specifications</i>                            |
| 1.2.1.7                                  |   | <i>Responsibilities</i>                          |
| 1.2.1.8                                  |   | <i>Integrated Project/Product Team (IPT)</i>     |
| 1.2.1.9                                  |   | <i>Preaward Surveys</i>                          |
| 1.2.1.10                                 | Defining Requirements                         |  |
| 1.2.1.11                                 | Documenting Requirements                      |  |
| 1.2.1.12                                 | Preaward Process: Seller                      |  |
| 1.2.1.13                                 | Preaward Process: Buyer                       |  |
| <b>1.2.2 ACQUISITION METHODOLOGY</b>     |   | <b>ACQUISITION METHODOLOGY</b>                   |
| 1.2.2.1                                  | <i>Invitation for Bids (IFB)</i>              | <i>Invitation for Bids (IFB)</i>                 |
| 1.2.2.2                                  | Request for Technical Proposal (RFTP)         | Request for Technical Proposal (RFTP)            |
| 1.2.2.3                                  | <i>Request for Proposals (RFP)</i>            | <i>Request for Proposals (RFP)</i>               |
| 1.2.2.4                                  | <i>Request for Quotations (RFQ)</i>           | <i>Request for Quotations (RFQ)</i>              |
| 1.2.2.5                                  |   | <i>Broad Agency Announcements (BAA)</i>          |
| 1.2.2.6                                  |   | <i>Small Business Innovation Research (SBIR)</i> |
| 1.2.2.7                                  | Prequalification                              |  |
| <b>1.2.3 PROPOSAL PREPARATION</b>        |   | <b>PROPOSAL PREPARATION</b>                      |
| 1.2.3.1                                  | <i>Bid or No-Bid Decision</i>                 | <i>Bid or No-Bid Decision</i>                    |
| 1.2.3.2                                  | <i>Technical/Management Proposal</i>          | <i>Technical/Management Proposal</i>             |
| 1.2.3.3                                  |   | <i>Cost Proposal</i>                             |
| 1.2.3.4                                  | <i>Unsolicited Proposal</i>                   | <i>Unsolicited Proposal</i>                      |
| 1.2.3.5                                  | Teaming                                       | <i>Teaming</i>                                   |
| 1.2.3.6                                  | Past Performance                              | Past Performance                                 |
| 1.2.3.7                                  | Evaluation Factors                            | <i>Evaluation Factors</i>                        |
| 1.2.3.8                                  | <i>Market Strategy</i>                        |  |
| 1.2.3.9                                  | <i>Risk Analysis</i>                          | <i>Risk Management</i>                           |
| <b>1.2.4 NEGOTIATION</b>                 |   | <b>NEGOTIATION</b>                               |
| 1.2.4.1                                  |   | <b>Sole-Source Negotiation</b>                   |
| 1.2.4.2                                  |   | <i>Fact Finding</i>                              |
| 1.2.4.3                                  | <i>Negotiation Objectives</i>                 | <i>Negotiation Objectives</i>                    |
| 1.2.4.4                                  | <i>Strategy and Tactics</i>                   | <i>Strategy and Tactics</i>                      |
| 1.2.4.5                                  | Adequacy of Offer/Conformance to Requirements |  |
| 1.2.4.6                                  | Buyer-Seller Relationship                     |  |
| <b>1.2.5 SOURCE SELECTION</b>            |   | <b>SOURCE SELECTION</b>                          |
| 1.2.5.1                                  | <i>Organization</i>                           | <i>Organization</i>                              |
| 1.2.5.2                                  | <i>Source Selection Team</i>                  | <i>Source Selection Board</i>                    |
| 1.2.5.3                                  | <i>Evaluation Process</i>                     | <i>Evaluation Process</i>                        |
| 1.2.5.4                                  | <i>Cost/Price Analysis</i>                    | <i>Cost/Price Analysis</i>                       |

|              |  |   |
|--------------|--|---|
| 1.2.5.5      | <i>Discussions</i>                                 | <i>Discussions</i>                                      |
| 1.2.5.6      | <i>Debriefing</i>                                  | <i>Debriefing</i>                                       |
| <b>1.2.6</b> | <b>PROTEST</b>                                     | <b>PROTEST</b>  |
| 1.2.6.1      | Forums   | Forums  |
| 1.2.6.2      | Alternative Dispute Resolution (ADR)               | Alternative Dispute Resolution (ADR)                    |
| 1.2.6.3      | Procedures   | Procedures  |
| 1.2.6.4      |  | Arbitration   |
| <b>1.3</b>   | <b>CONTRACT ADMINISTRATION</b>                     | <b>CONTRACT ADMINISTRATION</b>                          |
| <b>1.3.1</b> | <b>CONTRACT PERFORMANCE/<br/>QUALITY ASSURANCE</b> | <b>CONTRACT PERFORMANCE/<br/>QUALITY ASSURANCE</b>      |
| 1.3.1.1      | <b>Data Management</b>                             |   |
| 1.3.1.2      | <b>Process and Results Management</b>              | <b>Process and Results Management</b>                   |
| 1.3.1.3      | <b>Reporting</b>                                   |   |
| 1.3.1.4      | <b>Compliance Systems</b>                          |   |
| 1.3.1.5      | <b>Inspection</b>                                  | <b>Inspection</b>                                       |
| 1.3.1.6      | <b>Acceptance</b>                                  | <b>Acceptance</b>                                       |
| 1.3.1.7      | <b>Warranty</b>                                    | <b>Warranty</b>   |
| 1.3.1.8      | <b>Indemnification</b>                             | <b>Indemnification</b>                                  |
| 1.3.1.9      | <b>ISO Standards</b>                               | <b>ISO Standards</b>                                    |
| 1.3.1.10     |  | <b>Defense Priorities and Allocations System (DPAS)</b> |
| 1.3.1.11     | Customer Service                                   |   |
| <b>1.3.2</b> | <b>SUBCONTRACT MANAGEMENT</b>                      | <b>SUBCONTRACT MANAGEMENT</b>                           |
| 1.3.2.1      |  | Privity of Contract                                     |
| 1.3.2.2      |  | Make-or-Buy Program                                     |
| 1.3.2.3      |  | Consent to Subcontract                                  |
| 1.3.2.4      |  | Contractor's Purchasing System Review                   |
| 1.3.2.5      | Supply Chain Function                              |   |
| 1.3.2.6      | Supplier Goods, Services                           |   |
| 1.3.2.7      | Commodity Warehouse, Just in Time                  |   |
| 1.3.2.8      | Production Planning and Control                    |   |
| 1.3.2.9      | Specialized, Long Lead Items                       |   |
| <b>1.3.3</b> | <b>CONTRACT CHANGES/MODIFICATIONS</b>              | <b>CONTRACT CHANGES/MODIFICATIONS</b>                   |
| 1.3.3.1      | <i>Change Orders</i>                               | <i>Change Orders</i>                                    |
| 1.3.3.2      | <i>Supplemental Agreements</i>                     | <i>Supplemental Agreements</i>                          |
| 1.3.3.3      | <i>Constructive Changes</i>                        | <i>Constructive Changes</i>                             |
| 1.3.3.4      | <i>Administrative Changes</i>                      | <i>Administrative Changes</i>                           |
| 1.3.3.5      |  | <i>Bilateral and Unilateral</i>                         |
| 1.3.3.6      | <i>Cardinal Change</i>                             | <i>Cardinal Change</i>                                  |
| 1.3.3.7      | <i>Delays</i>                                      | <i>Delays</i>   |
| 1.3.3.8      | <i>Stop-Work Order</i>                             | <i>Stop-Work Order</i>                                  |
| <b>1.3.4</b> | <b>PROPERTY ADMINISTRATION</b>                     | <b>PROPERTY ADMINISTRATION</b>                          |
| 1.3.4.1      |  | Property Control System                                 |
| 1.3.4.2      |  | Records and Reports                                     |

|              |   |   |
|--------------|---|---|
| <b>1.3.5</b> | <b>TRANSPORTATION</b>   | <b>TRANSPORTATION</b>   |
| 1.3.5.1      | Modes of Transportation   | Modes of Transportation   |
| 1.3.5.2      | Transportation-Related Services                                   | Transportation-Related Services                                   |
| 1.3.5.3      | Free On Board (FOB)   | Free On Board (FOB)   |
| <b>1.3.6</b> | <b>DISPUTES</b>   | <b>DISPUTES</b>   |
| 1.3.6.1      | Forums  | Forums  |
| 1.3.6.2      | Alternative Dispute Resolution                                    | Alternative Dispute Resolution                                    |
| 1.3.6.3      |   | Procedures  |
| 1.3.6.4      |   | Extraordinary Contractual Relief                                  |
| 1.3.6.5      | Relationship Management   | Relationship Management   |
| 1.3.6.6      | Arbitration   | Arbitration   |
| <b>1.3.7</b> | <b>CONTRACT CLOSEOUT</b>  | <b>CONTRACT CLOSEOUT</b>  |
| 1.3.7.1      | Payment   | Physical Completion   |
| 1.3.7.2      | <b>Liability Costs, Warranty, Service Life, Protection, Risk</b>  | Administrative Closeout   |
| 1.3.7.3      | <b>Records Retention</b>  |   |
| 1.3.7.4      | <b>Outsourcing of Contract Management</b>                         |   |
| <b>1.3.8</b> | <b>CONTRACT TERMINATION</b>                                       | <b>CONTRACT TERMINATION</b>                                       |
| 1.3.8.1      | Bilateral/Notice  | Convenience Termination   |
| 1.3.8.2      | Unilateral/Nonperformance   | Default Termination   |
| 1.3.8.3      |   | Records Retention   |
| <b>1.4</b>   | <b>SPECIALIZED KNOWLEDGE AREAS</b>                                | <b>SPECIALIZED KNOWLEDGE AREAS</b>                                |
| <b>1.4.1</b> | <b>RESEARCH AND DEVELOPMENT</b>                                   | <b>RESEARCH AND DEVELOPMENT</b>                                   |
| 1.4.1.1      | R&D Contract  | R&D Contract  |
| 1.4.1.2      | Grant   | Grant   |
| 1.4.1.3      | Cooperative Agreement   | Cooperative Agreement   |
| 1.4.1.4      | Independent Research and Development (IR&D)                       | Independent Research and Development (IR&D)                       |
| 1.4.1.5      |   | Small Business Innovative Research (SBIR)                         |
| 1.4.1.6      |   | Federally Funded Research and Development Corporation (FFRDC)     |
| <b>1.4.2</b> | <b>ARCHITECT AND ENGINEER (A&amp;E) SERVICES AND CONSTRUCTION</b> | <b>ARCHITECT AND ENGINEER (A&amp;E) SERVICES AND CONSTRUCTION</b> |
| 1.4.2.1      |   | A&E Selection Process   |
| 1.4.2.2      | Construction Contracts  | Construction Contracts  |
| 1.4.2.3      | Design/Build  | Design/Build  |
| 1.4.2.4      |   | Outsourcing   |
| 1.4.2.6      | Architect and Design Services                                     |   |
| <b>1.4.3</b> | <b>INFORMATION TECHNOLOGY</b>                                     | <b>INFORMATION TECHNOLOGY</b>                                     |
| 1.4.3.1      | Network Systems   | Network Systems   |
| 1.4.3.2      | Telecommunications  | Telecommunications  |
| 1.4.3.3      | Electronic Commerce   | Electronic Commerce   |
| 1.4.3.4      | Enterprise Resource Planning (ERP) System                         | Enterprise Resource Planning (ERP) System                         |
| 1.4.3.5      | Seat Management (SEAT)  | Seat Management (SEAT)  |

| <b>1.4.4</b> | <b>MAJOR SYSTEMS</b>                             | <b>MAJOR SYSTEMS</b>                             |
|--------------|--|--|
| 1.4.4.1      | Systems Acquisition Process (life cycle)         | Systems Acquisition Process (life cycle)         |
| 1.4.4.2      | Program Management                               | Program Management                               |
| 1.4.4.3      | Program Manager–Contracting Officer Relationship | Program Manager–Contracting Officer Relationship |
| <b>1.4.5</b> | <b>SERVICE CONTRACTS</b>                         | <b>SERVICE CONTRACTS</b>                         |
| 1.4.5.1      |  | Advisory and Assistance Services                 |
| 1.4.5.2      | Consulting                                       | Personal Services                                |
| 1.4.5.3      |  | Alpha Contracting                                |
| 1.4.5.4      |  | Defense Production Act                           |
| 1.4.5.5      |  | Inherently Governmental                          |
| 1.4.5.6      |  | Facilities Contract                              |
| 1.4.5.7      |  | OMB Circular A-76                                |
| 1.4.5.8      | Time and Materials                               |  |
| 1.4.5.9      | Outsourcing                                      |  |
| <b>1.4.6</b> | <b>INTERNATIONAL CONTRACTING</b>                 | <b>INTERNATIONAL CONTRACTING</b>                 |
| 1.4.6.1      | Agreements and Restrictions                      | Agreements and Restrictions                      |
| 1.4.6.2      | Export Controls                                  | Export Controls                                  |
| 1.4.6.3      |  | Foreign Military Sales (FMS)                     |
| 1.4.6.4      | Global Issues                                    |  |
| 1.4.6.5      |  | Security   |
| 1.4.6.6      | INCO Terms                                       |  |
| <b>1.4.7</b> | <b>STATE AND LOCAL GOVERNMENT (S&amp;L)</b>      | <b>STATE AND LOCAL GOVERNMENT (S&amp;L)</b>      |
| 1.4.7.1      | Authority  | Authority  |
| 1.4.7.2      | Organization                                     | Organization                                     |
| 1.4.7.3      | Intergovernmental Relations                      | Intergovernmental Relations                      |
| <b>1.4.8</b> | <b>SUPPLY CHAIN</b>                              | <b>SUPPLY CHAIN</b>                              |
| 1.4.8.1      | Supply Chain Management                          | Supply Chain Management                          |
| 1.4.8.2      | Property   |  |
| 1.4.8.3      | Supplier/Customer Management                     |  |
| 1.4.8.4      | Materials Management                             |  |
| 1.4.8.5      | Inventory Management                             |  |
| <b>1.5</b>   | <b>GENERAL BUSINESS</b>                          | <b>GENERAL BUSINESS</b>                          |
| <b>1.5.1</b> | <b>MANAGEMENT</b>                                | <b>MANAGEMENT</b>                                |
| 1.5.1.1      | Principles                                       | Principles                                       |
| 1.5.1.2      | Systems and Processes                            | Systems and Processes                            |
| 1.5.1.3      | Human Relations                                  | Human Relations                                  |
| 1.5.1.4      | Organizational Behavior                          | Organizational Behavior                          |
| 1.5.1.5      | Organizational Communication                     | Organizational Communication                     |
| <b>1.5.2</b> | <b>MARKETING</b>                                 | <b>MARKETING</b>                                 |
| 1.5.2.1      | Organizational/Industrial Marketing              | Organizational/Industrial Marketing              |
| 1.5.2.2      | Product/Service Planning                         | Product/Service Planning                         |
| 1.5.2.3      | Promotion  | Promotion  |
| 1.5.2.4      | Pricing  | Pricing  |

|              |                                  |  |
|--------------|----------------------------------|--|
| <b>1.5.3</b> | <b>OPERATIONS MANAGEMENT</b>     | <b>OPERATIONS MANAGEMENT</b>           |
| 1.5.3.1      | Production/R&D/Services          | Production/R&D/Services                |
| 1.5.3.2      | Logistics                        | Logistics                              |
| 1.5.3.3      | Procurement                      | Procurement                            |
| <b>1.5.4</b> | <b>FINANCE</b>                   | <b>FINANCE</b>                         |
| 1.5.4.1      | Corporate                        | Corporate                              |
| 1.5.4.2      | Financial Reporting              | Financial Reporting                    |
| 1.5.4.3      | Financial Analysis               | Financial Analysis                     |
| 1.5.4.4      | Forecasting                      | Forecasting                            |
| 1.5.4.5      | Cash Budgeting                   | Cash Budgeting                         |
| 1.5.4.6      | Break Even Analysis              | Break Even Analysis                    |
| 1.5.4.7      | Working Capital                  | Working Capital                        |
| 1.5.4.8      | Capital Budgeting                | Capital Budgeting                      |
| 1.5.4.9      | Leases                           | Leases                                 |
| 1.5.4.10     | Export Financing                 | Export Financing                       |
| 1.5.4.11     | Revenue Recognition              | Revenue Recognition                    |
| 1.5.4.12     | Overhead                         | Overhead                               |
| 1.5.4.13     | General and Administrative (G&A) | General and Administrative (G&A)       |
| 1.5.4.14     |                                  | Cost As an Independent Variable (CAIV) |
| 1.5.4.15     |                                  | Earned Value                           |
| <b>1.5.5</b> | <b>ACCOUNTING</b>                | <b>ACCOUNTING</b>                      |
| 1.5.5.1      | Managerial                       | Managerial                             |
| 1.5.5.2      | Cost                             | Cost                                   |
| 1.5.5.3      | Auditing                         | Auditing                               |
| 1.5.5.4      | Budgeting                        | Budgeting                              |
| <b>1.5.6</b> | <b>ECONOMICS</b>                 | <b>ECONOMICS</b>                       |
| 1.5.6.1      | Principles                       | Principles                             |
| 1.5.6.2      | Managerial                       | Managerial                             |
| 1.5.6.3      | Micro                            | Micro                                  |
| 1.5.6.4      | Macro                            | Macro                                  |
| <b>1.5.7</b> | <b>QUANTITATIVE METHODS</b>      | <b>QUANTITATIVE METHODS</b>            |
| 1.5.7.1      | Statistics                       | Statistics                             |
| 1.5.7.2      | Deterministic Models             | Deterministic Models                   |
| 1.5.7.3      | Stochastic Models                | Stochastic Models                      |
| <b>1.5.8</b> | <b>INFORMATION SCIENCE</b>       | <b>INFORMATION SCIENCE</b>             |
| 1.5.8.1      | Information Management           | Information Management                 |
| 1.5.8.2      | Programming                      | Programming                            |
| 1.5.8.3      | Database Management              | Database Management                    |
| 1.5.8.4      | Applications Software            |  |
| 1.5.8.5      | E-Procurement                    |  |

## How to Approach the Certification Examinations

It is easiest to first talk about the physical side of testing. Candidates should leave for the testing center early enough to allow for traffic delays and unfamiliar locations. They should arrive at the exam site well-rested and energetic. To take the exam, candidates must present a photo identification card (ID). Note that the candidate must provide the photo ID with the same name as that under which he or she registered for the exam. For example, if Mary Smith applied and was accepted under her married name of Mary Smith-Jones but presents an ID for Mary Smith or Mary Jones, she may be denied entrance to the examination.

Candidates may schedule two exam modules in one day. NCMA does not, however, advise that anyone attempt to schedule and take three exam modules in one day. Candidates may schedule either module or take both, and may take them in whatever order they choose.

During the beta phase of NCMA's certification program, results were not instantly provided. The passing score was not set until a sufficient number of persons had taken the exam to provide data for the scoring process. Candidates who passed the beta test are considered to have earned the certification and will be issued certificates. However, candidates who take the certification examinations now will receive results almost instantly. Within seconds or minutes of hitting the "Submit" button, the results of the examination will be displayed. Those who pass will be advised of that fact but will not be given the exact score. Those who were unsuccessful will be given a diagnostic report, which can be used to aid further study.

For the harder, mental side of examinations, here are few good test-taking techniques:

1. Relax. This examination is based on your profession.
2. Read the questions carefully, answering those you can easily and quickly answer. It is usually a good idea to go with your first impression when answering a question; second-guessing can cause you to change a correct answer to an incorrect one.
3. Skip over or flag questions that appear too difficult and return to them later.
4. Don't stop. Keep going. Keep reading questions until you find one you can answer. The questions you've read will be in the back of your mind; when you return to them, you'll have a fresh perspective.
5. Avoid overanalyzing and second-guessing the question. Choose the correct answer for the question as it is written. Do not make assumptions about what the question means. Don't regard questions as being "trick questions" or concentrate on the exceptions to normal practice.
6. Keep an eye on the clock. Judge the time you have, so you don't spend a lot of time puzzling over one question to the detriment of being able to answer several others. Flag questions you are having trouble with and move on (see numbers 3 and 4).
7. Don't try to "game" the system by choosing answers to ensure that an equal number of As, Bs, Cs, and so on are selected. In the long run (over a lifetime), this may be a good technique, but in the short run (for one examination) the statistical underpinning for this myth has not been proven.
8. Try to answer the question in your mind before you read the choices. Good test questions are constructed to allow the knowledgeable examination candidate to do this.

9. If you can't readily identify the correct answer, make an educated guess. Eliminate the choices you know to be false and select from those remaining.
10. Look over your answers, if time permits. However, avoid trying to second-guess your answers (see number 5).
11. Don't worry about the examination. You may feel wrung out and exhausted at the end of the exam, but that is not an indication of how well or how poorly you may have performed (see number 1).

# Part IV

## Federal Contracts/Acquisition Management Framework

The CMBOK recognizes and acknowledges contracts/acquisition management frameworks. For example, Leads Corporation has published a Federal Contracting Cycle (see Figure 7), and DOD Directive 5000.1, the Defense Acquisition System (see Figure 8), describes the defense acquisition management framework. Other government agencies and government contractors follow similar forms of the contracts/acquisition model. This version of the CMBOK includes contracts/acquisition management frameworks that are commonly used by many government and nongovernment contractors. The writers recognize that these are only a few of many successful models.

Figure 7. Federal Contracting Cycle

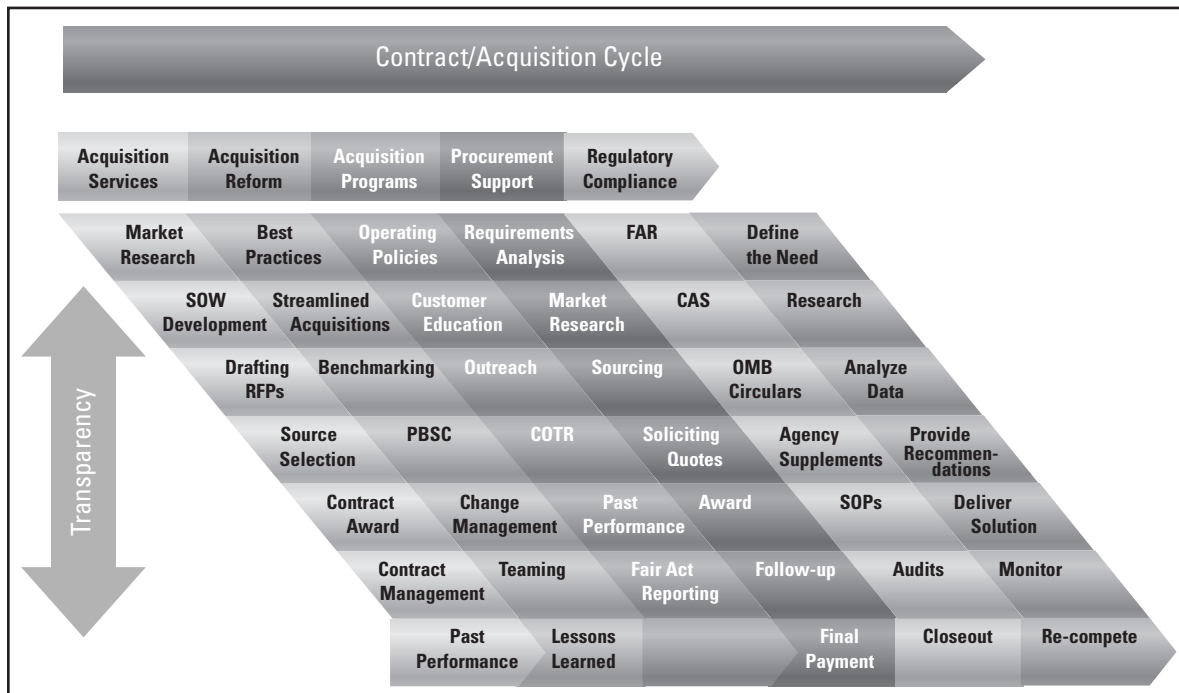
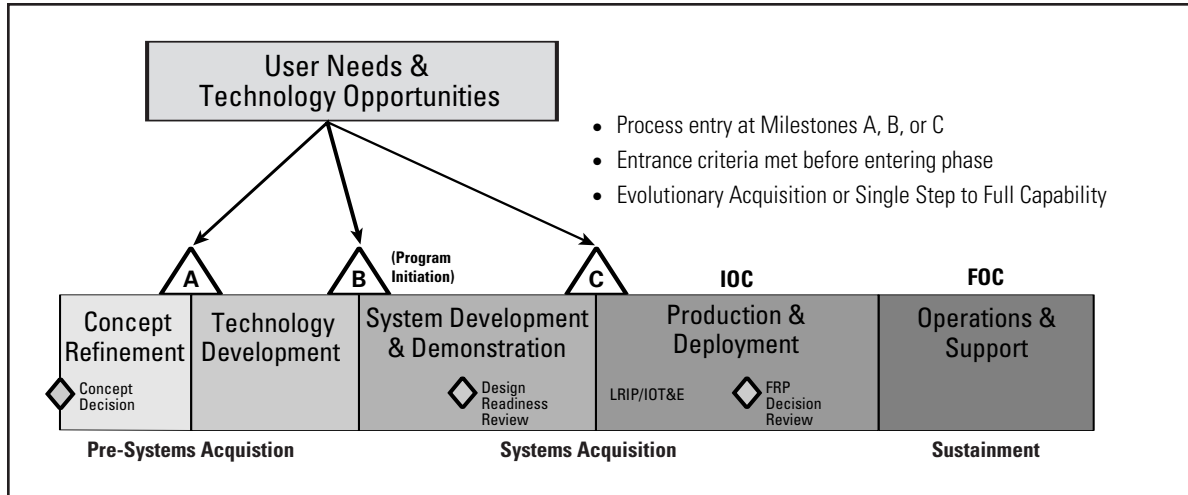




Figure 8. DOD Directive 5000.1, Defense Acquisition System



# Part V

## Glossary

### Body of Knowledge, Contract Management

The Contract Management Body of Knowledge (CMBOK) is an inclusive term that describes the sum of knowledge for the profession of contract management. The complete body of knowledge concerning contract management resides both with the practitioners and those who, like academicians and governing bodies, apply and advance the field of contract management. This body of knowledge includes both the generally accepted practices (such as business and finance) that are widely applied and state-of-the-art practices (such as e-commerce and catalog aggregation). The latter may have more limited use, but their use is increasing because of the combination of workforce change and improvements in information technology.

*Source:* CMBOK Committee, 2001.

### Body of Knowledge, Project Management

The Project Management Body of Knowledge (PMBOK®) is an inclusive term that describes the sum of knowledge within the profession of project management. This full body of knowledge includes knowledge of proven, traditional practices that are widely applied as well as knowledge of innovative and advanced practices that may see more limited use. The full body of knowledge concerning project management is that which resides with the practitioners and academics who apply and advance it.

*Source:* PMBOK®, 1996, 2000.

### CACM™

Certified Associate Contracts Manager

*Source:* NCMA.

### CFCM™

Certified Federal Contracts Manager

*Source:* Contract Management Certification and Accreditation Board (CMCAB).

### CMBOK

Contract Management Body of Knowledge

*Source:* NCMA.

### CMI™

Contract Management Institute

*Source:* NCMA.

### Competencies

An interrelated set of skills, behaviors, attitudes, and knowledge needed by an individual to be effective in most professions.

*Source:* *Organizational Behavior*, 9th ed., 2001.

### **Contract Manager**

The term “contract manager” applies to practitioners of contracts management. Functional titles can be negotiator, business manager, administrator, buyer, proposal manager, subcontracts manager, pricing manager, or another title relating to committing an organization to executing and managing a binding agreement with another party. For ease of use, contract manager is used to describe the contracts management practitioner, irrespective of title, practices, or duties performed.

*Source:* Marlys Norby, 2001.

### **Core Competencies**

Core competencies are those specific knowledge areas that are part of the full Contract Management Body of Knowledge that contract managers need to know to be effective and do their jobs well (see also Foundational Competencies).

*Source:* NCMA, 2001.

### **CPCM™**

Certified Professional Contracts Manager

*Source:* NCMA.

### **Foundational Competencies**

The grouping of competencies into related major skills, behaviors, attitudes, and knowledge is called foundational competencies (see also Core Competencies).

*Source:* *Organizational Behavior*, 9th ed., 2001.

### **Foundational Competencies, CMBOK**

Foundational competencies list broad knowledge areas that are part of the full Contract Management Body of Knowledge. They include the social sciences (such as finance and business management) and knowledge of proven, traditional practices (such as contract management and administration).

*Source:* NCMA, 2001.

### **ISM**

Institute for Supply Management (formerly National Association of Purchasing Management)

*Source:* ISM.

### **NCMA**

National Contract Management Association

*Source:* NCMA.

### **PMI**

Project Management Institute, Inc.

*Source:* PMI.

### **Profession**

A calling requiring specialized knowledge and often long and intensive academic preparation. A profession is the whole body of persons involved in a calling.

*Source:* *Webster's 9th Collegiate Dictionary*.

**Profession, Contract Management**

Contract management is recognized as a profession that is vital to the operation of first-class business organizations, and members of NCMA are recognized as professionals who are integral to the operation of these organizations.

*Source:* NCMA.

**Professionalism**

The conduct, aims, or qualities that characterize or mark a profession or a professional person. The following of a profession for gain or livelihood.

*Source:* *Webster's 9th Collegiate Dictionary*.

**Subject Matter Competencies**

Subject matter competencies are a subset of the core competencies and include the specific knowledge areas within the core competencies that contract managers need to know to be effective and do their jobs well.

*Source:* NCMA, 2001.

**Task Identity**

The extent to which a job requires an employee to complete a whole and identifiable piece of work; that is, doing a task from beginning to end with a visible outcome. An example of task identity would be as follows: prepare and solicit competitive quotations.

*Source:* *Organizational Behavior*, 9th ed., 2001.

**WBS Lexicon, CMBOK**

The CMBOK work breakdown structure (WBS) dictionary is a document that lists alphabetically terms or names important to the CMBOK. It contains definitions and explanations of key terms.

*Source:* Victor Ramos, 2001.

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*Webster's 9th Collegiate Dictionary*.

NCMA

**National Contract Management Association**  
21740 Beaumeade Circle, Suite 125  
Ashburn, Virginia 20147

[www.ncmahq.org](http://www.ncmahq.org) • 800-344-8096  
[www.ContractManagementJobs.com](http://www.ContractManagementJobs.com)

