# **PRICE ANALYSIS**

# **CLASSROOM MATERIALS**



FEDERAL ACQUISITION INSTITUTE OFFICE OF ACQUISITION POLICY MAY 1992 (FAC 90-10)

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### **SYLLABUS**

MONDAY	Start Time <sup>1</sup>
Administrative	8:00
Morning Break	9:00
Introduction	9:20
Lunch	11:20
Lesson 1 - Prepare For Price Analysis	12:20
Afternoon Break	1:25
Lesson 2 - Maximize Price Competition	1:45
Lesson 3 - Price-Related Data From Offerors (begin)	2:50

TUESDAY	Start Time
Lesson 3 - Price-Related Data From Offerors (continued from Monday)	8:00
Morning Break	10:15
Lesson 4 - Select Price Related Factors	10:35
Lunch	11:35
Lesson 4 - Select Price Related Factors (continued)	12:35
Afternoon Break	1:35
Lesson 5 - Apply Price Related Factors (begin)	1:55

WEDNESDAY	Start Time
Lesson 5 - Apply Price Related Factors (conclude)	8:00
Lesson 6 - Compare Prices	8:25
Morning Break	9:25
Lesson 6 - Compare Prices (continued)	9:45
Lunch	11:15
Lesson 7 - Calculate The Should Pay Price	12:15
Afternoon Break (scheduled by the instructor)	N/A

<sup>&</sup>lt;sup>1</sup>All starting times are approximate and subject to change by the instructor.

THURSDAY	Start Time
Morning Break (scheduled by the instructor)	N/A
Lesson 7 - Calculate The Should Pay Price (conclude)	8:00
Lunch	11:00
Lesson 8 - Account For Differences	12:00
Afternoon Break	1:15
Lesson 9 - Price-Related Decisions In Sealed Bidding	1:35

FRIDAY	Start Time
Morning Break (scheduled by the instructor)	N/A
Lesson 10 - Price-Related Decisions In Negotiations	8:00
Lesson 11 - Documentation	11:05
Lunch	1:15
Test	1:45

# TEXT/REFERENCE READING ASSIGNMENTS

When	Chapters	Pages
Monday Night	Introduction	All
	Chapter 1	1-1 through 1-48
		(Exclude the appendix)
	Chapter 2	2-1 through 2-7
	Chapter 3	All
	Chapter 4	All
	Chapter 5	All
Tuesday Night	Chapter 6	All
	Chapter 7	All
Wednesday Night	Chapter 8	All
	Chapter 9	All
Thursday Night	Chapter 10	All
	Chapter 11	All

Reading Assignments

### INTRODUCTION PRICES AND PRICING

### MARK-UP PRICING

**Mark-up pricing** is the establishment of prices based on direct cost or total cost plus a percentage mark-up. The questions below are based on the application of mark-up pricing principles.

1. Acme Products produces Part #123432H at an estimated cost of \$3,800 each. The firm has an established mark-up rate of 15 percent.

### What is the unit selling price?

2. Duke Sales sells its Part #ABD100342 for \$2,100 each. Duke's mark-up rate is set at 20 percent.

### What is Duke's estimated cost to produce the unit?

3. The James Manufacturing Company sells Part #19243543 for \$5,000 each. Each part costs the firm an estimated \$4,000 to produce.

### What is the firm's mark-up rate?

4. Walden Corporation's estimated direct unit cost to produce Part #19235834 is \$1,500. The firm bases selling price mark-up on direct cost, and the mark-up rate is 250 percent.

### What is the unit selling price?

5. Holden-Walker Corporation's selling price for Part #19384757 is \$7,500. The firm bases selling price mark-up on direct cost, and the mark-up rate is 275 percent.

### What is the estimated direct unit cost?

### MARGIN ON DIRECT COST PRICING

**Margin on Direct Cost Pricing** is very similar to mark-up pricing in that price is based on the relationship between cost and profit. Instead of adding a mark-up based on a percentage of cost, margin pricing uses direct cost data to calculate a price that will provide an established profit margin.

1. Ham Industries produces Part #23451323V at an estimated cost of \$4,800 each. The firm has an established margin of 50 percent.

### What is the unit selling price?

2. Lambert-Russell sells part #RST29405123 at a price of \$5,000 per unit. The direct cost is \$2,000.

What is the margin used in pricing?

3. Swann Systems produces the ADCOM System at a cost of \$9,000 per unit. The firm prices using a margin of 45 percent.

### What is the unit selling price?

4. Stallworth Products sells Part #RAC12948533 at a price of \$6,000. The firm's margin rate is known to be 60 percent.

### What is the firm's direct cost?

### **RATE-OF-RETURN PRICING**

**Rate-of-Return Pricing** bases prices on cost plus a profit calculated to achieve a target rateof-return on investment.

1. Franco Pharmaceuticals plans to market a new prothesis. However, management is concerned about the \$500,000 investment required. The item only costs \$700 to produce and annual sales of 6,000 units appear reasonable. Similar products earn a 20 percent return on investment.

### What unit profit will be required?

2. Shell Industries is thinking of producing and selling a new product. Additional facilities costing \$1,000,000 will be required to produce and sell the product. The total cost to produce the product is estimated at \$2,500. Market research predicts potential sales of 2,000 units. Because of the moderate level of market risk, Shell feels that a 15 percent rate of return is reasonable.

### At what price would the firm market the product?

3. Blier Bargains is preparing to go into production of the Blier V system. An investment of \$800,000 will enable the firm to produce the Blier V at a unit cost of only \$275. With annual sales estimated at 4,000 units, the firm feels that a 12 percent rate of return is reasonable.

### At what price would Blier market the product?

4. Fuqua Corporation has developed a new product. An investment of \$900,000 will be needed to go into full-scale production and marketing of the product. Production cost is estimated to be \$1,000 per unit if 1,000 units are produced each year. Marketing research indicates that Fuqua can sell 1,000 units at a price of \$1,200.

# At a price of \$1,135 and a sales volume of 1,000 units, what will be Fuqua's estimated rate of return.

### **ROCKY ROLLERS**

Rocky Rollers is an old line materials handling firm. Engineering has developed a new system equal to any in the industry. Marketing wants to get the product on the street as soon as possible. Production would require an investment of \$1,500,000. Unit cost is estimated at \$8,000 and potential sales at 1,000 systems per year. Hooper uses a 20 percent rate of return for pricing all products.

1. What unit profit would be required to attain the target rate of return?

2. What would the unit price be at that profit level?

3. Should Rocky Rollers produce the system if competitors market similar systems for about \$7,700? Why?

4. What are the firm's marketing alternatives?

### FAIR AND REASONABLE

Based only on the information provided, answer each of the following questions.

1. You solicited prices from 20 firms and 15 firms submitted bids. Each firm bid on a product that it produces in accordance with the commercial standard used in the solicitation. The low bid totals \$125,000 and several other bids are within \$5,000.

### Based on the information provided, does the price appear reasonable?

2. You are negotiating a contract for unique product only produced by one firm. The firm, Landry Products, has offered a unit price of \$2,000 per unit for 40 units. That is \$500 more per unit than you paid last month and \$500 more than the current commercial price. Landry states that the difference is a new surcharge for Government business. The one-time surcharge was established to cover a \$20,000 loss on a recent Government contract.

### Based on the information provided, does the price appear fair and reasonable?

3. You are negotiating a sole-source contract. The firm, Henderson Products, has offered a unit price of \$1,000 per unit for 60 units. The price will increase to \$1,200 if the firm looses a pending product liability law suit. Henderson states that all prices will increase by 20 percent until the cost of any adverse settlement is covered.

### Based on the information provided, does the price appear fair and reasonable?

### CHAPTER 1 PREPARE FOR PRICE ANALYSIS

### **BRITTLE BEARINGS**

You have just received a purchase request for the purchase of 5,000 roller bearings. The purchase request estimate is \$8.00 per unit for a total of \$40,000. The Government estimate is based on a recent estimate prepared by your local engineering staff as part of a routine review of items whose annual total purchase price exceeds \$100,000. The estimate was prepared independently using manufacturing principles and factors commonly used in the bearing industry.

The procurement history indicates that the last purchase of the item was 3-months ago. At that time, 2,000 units were purchased at a price of \$12.00 each.

Brittle has been the sole source for these bearings since they purchased their only competitor about five years ago. The price for the last competitive purchase was \$5.75 five years ago, just before the purchase of their competitor.

Review of the Producer Price Index (PPI) shows that average bearing prices have increased 40 percent over the past five years.

**1.** Based on the above information, what is your best estimate of a reasonable price for the roller bearings?

2. What additional information would be useful in your analysis and where might you go to obtain it?

### CHAPTER 2

### **MAXIMIZE PRICE COMPETITION**

### HUGO CORPORATION

You are preparing a solicitation for a requirements contract for shop equipment. Only one firm responded to the last solicitation. Final agreement was reached through single-source negotiations. As you review the contract file from the last requirements contract, several points catch your eye. First, you note the purchase description is the same as the description on the current purchase request:

Saw, Band. HUGO Part Number XBS13434 or equal.

Lathe, Wood. HUGO Part Number XWL97967234 or equal.

Saw, Table. HUGO Part Number XTS2454667 or equal.

Second, you note the following words in the Price Negotiation Memorandum (PNM):

- The HUGO Corporation initially offered a 10 percent discount on orders for any combination of 1,000 units or more of the three line items included in the proposed solicitation.
- Although the Agency appears to have placed orders that total more than 500 pieces in the past, there is no way that the Contracting Officer can control the ordering pattern of the Item Manager. The HUGO Corporation's negotiator was advised that the Government would be unable to accept the proposed discount.
- After substantial negotiation, the offeror reduced its price across the board by 5 percent with no quantity stipulations.
- **1.** You are concerned about the clarity of the purchase description in light of the lack of competition on the current purchase. As a buyer, what can you do?
- 2. You are also concerned that the Government did not obtain the greatest possible discount on sales over 500 total units. As a buyer, what can you do?

### WRENCH WORKS

You are preparing a solicitation for three adjustable wrenches: 6 inch, 8 inch, and 12 inch. As you prepare the solicitation, you review the prior contract file. Two elements of the Price Negotiation Memorandum (PNM) concern you.

### **Price Analysis**

In comparison with the current requirements contract, prices on the proposed contract have increased 52.0 percent. Since the award of the prior contract, the relevant Producers Price Index (PPI) increased 10.0 percent.

The price difference is attributed to two related factors: increased requirements and decreased competition. The new requirements involve finish, first article testing, and 100 percent inprocess testing.

*Finish Requirements.* New finish requirements, require that the head of each wrench be polished to a smoothness no coarser than 50 microinches. Previous specifications required a polished head but did not specify smoothness. Responses to the request for proposal (RFP) by several suppliers indicate that these requirements are far in excess of the industry standard for polish. They indicate that new equipment and more production time would be required to meet the new requirements. Both changes increase the prices offered. Several firms indicated that they could not submit a proposal because of the significant risk involved in the equipment investment. With no guarantees on Government requirements, they may make a significant investment in equipment to produce product for which there is no demand. Commercial customers are more concerned about price than polish.

*First Article Testing.* First article testing requirements also added to the contract price. Each contractor will be required to submit units for testing and approval prior to delivery of production units. Many offerors are concerned about the timeliness of Government testing and the effect on costs and delivery schedules.

*In-Process Testing*. The revised specification also includes a new requirement for 100 percent testing of wrenches for cracks. While random testing is common place, no firm in the industry uses 100 percent testing in normal production. The firm that submitted the only proposal has in-house testing facilities. The requirement is not considered restrictive because other firms have similar testing facilities and the required testing is also available from numerous commercial laboratories.

### 1. Should the current buyer be concerned about the above points?

### 2. What, if anything, can the buyer do to increase competition?

### CHAPTER 3 PRICE-RELATED DATA FROM OFFERORS

### **CERTIFIED CONTRACTING**

As a contracting officer, it is your responsibility to determine if offerors should be required to submit Cost or Pricing Data. When Cost or Pricing Data are required you must also determine whether the apparent successful offeror should be required to certify the data prior to contract award. Based on the limited information available, what would you decide in each situation below?

1. You are preparing a solicitation for training services. A total of 54 sources have requested copies of the solicitation. Other buyers of similar services tell you that they typically receive two to six proposals on solicitations for similar requirements.

Should the solicitation require offerors to submit full cost or pricing data with the intent of requiring certification? Why?

2. You have a purchase request for the purchase of \$510,000 of surgical instruments. The request includes a justification limiting the purchase to Dull Instruments "to enhance the probability of patient survival in the operating room." From experience, you know that you can obtain offers from about six firms that offer Dull Instruments.

Should the solicitation require offerors to submit full cost or pricing data with the intent of requiring certification? Why?

### **CERTIFIED CONTRACTING (Con't)**

3. Ten days ago you awarded a contract for rebuilding 100 electronic units so that they would meet the requirements of current safety directives. Three offers were received:

Shock Electronics	\$600,000
Space Electronics	\$650,000
Martin Systems	\$750,000

Today you received a purchase request for priority rebuilding of 55 more units. To meet delivery requirements you are restricting the solicitation to a single source, Shock Electronics.

Should the solicitation require Shock to submit full cost or pricing data with the intent of requiring certification? Why?

4. For five years Northern Motors has been the only firm manufacturing a complex stateof-the-art generator to Government specifications. Northern is the only firm with significant investment in the expensive special tooling required for producing this generator. You are preparing an RFP for 20 units at an estimated price of \$520,000. A total of four firms have requested the RFP.

# Should you require the offerors to submit full cost or pricing data with the intent of requiring certification? Why?

5. The facility, where your office is located, is divided into two areas, Area A and Area B. You sent an RFP for custodial services in the two areas to 21 potential sources. Because the solicitation was issued under full and open competition, no cost or pricing data were required. Yesterday, the RFP closed. Today you review the proposals received and find the following:

	Area A (12,600 Sq Ft)	Area B (20,400 Sq Ft)
Garbage Unlimited Jason's Janitors	\$504,000 \$620,000	\$1,020,000 No Offer

Should you require the offerors to submit full cost or pricing data with the intent of requiring certification? Why?

### **CERTIFIED CONTRACTING (Con't)**

6. Your contracting office issued an RFP for a 1-year contract for vegetation control on a remote 2,450 acre section of your facility. The performance specifications read, "control vegetation so that vegetation height does not exceed six inches." Two offers were received:

Lawn Love	\$560,000
Woolrich Farms	\$130,0001

The Government estimate was \$540,000 and the price of the prior contract is \$515,000. When questioned on their low offer, Woolrich representatives advised that they intend to use sheep instead of the combination of tractor mowers, lawn mowers, and manual labor offered by Lawn Love. It appears that the Woolrich method will work and is not prohibited by any laws of applicable directives.

Should you require the offerors to submit full cost or pricing data with the intent of requiring certification? Why?

<sup>&</sup>lt;sup>1</sup>For the purposes of this exercise, assume that the applicable threshold for certified cost or pricing data is \$100,000.

### **DOWNTOWN PRICES**

As the contracting officer at your agency's Downtown Contracting Center, you must decide whether each one of the following single source purchases should be exempted from submission of Certified Current Cost or Pricing Data. What other information might you want to know before you make your decision?

1. Radio Shed is offering 2,000 radio components on Jul 14, 19X5 at \$260 each. An attached catalog shows that \$260 is the catalog price per item on orders of 10 or more. The Standard Form 1412 shows the following:

Catalog Identification and Date: Catalog L45345, Radio Components, dated May 1, 19X5

Sales Period Covered: From Apr 1, 19X5 to Jun 30, 19X5

Sales at C	ernment Sales Catalog Price to es to the Gener	the General Publi al Public	$\begin{array}{c} 20\\ 60\\\end{array}$	
Sale 1:	Category B	Jun 20, 19X5	10 Units	\$260 price
Sale 2:	Category B	Jun 1, 19X5	5 Units	\$286 price
Sale 3:	Category B	May 15, 19X5	5 Units	\$286 price

### Exempt, Non-Exempt, or Investigate? Why?

2. Trumpy System is offering 1,000 Trumpy II office support systems on January 14, 19X8 at \$825 each. An attached catalog shows that \$825 is the catalog price and the Standard Form 1412 shows the following:

Catalog Identification and Date: Office Support Systems, dated July 1, 19X7

Sales Period Covered: From October 1, 19X7 to December 31, 19X7.

U.S. Government Sales	5,000
Sales at Catalog Price to the General Public	3,000
Other Sales to the General Public	1,500

Sale 1:	Category C	Nov 15, 19X7 1,500 Units	\$743 price
Sale 2:	Category B	Dec 1, 19X7 1,500 Units	\$825 price
Sale 3:	Category B	Oct 15, 19X7 500 Units	\$825 price

Remarks: The Category C sale price was based on a special 10 percent discount to Johnson Ships for a single sale of over \$2 million which included several different systems.

### Exempt, Non-Exempt, or Investigate? Why?

### DOWNTOWN PRICES (Con't)

3. Woven Valve is offering 500 XT1000 valves on October 26, 19X5 at \$1,150 each. An attached catalog shows that \$1,150 is the catalog price and the Standard Form 1412 shows the following:

Catalog Identification and Date: Woven Valves Catalog, dated May 30, 19X4

Sales Period Covered: From July 1, 19X5 to September 30, 19X5.

Sales at C	ernment Sales atalog Price to es to the Genera	2,0 lic 3,5 1,0	00	
Sale 1:	Category C	Jul 8, 19X5		<pre>\$ 920 price</pre>
Sale 2:	Category C	Aug 1, 19X5		\$ 920 price
Sale 3:	Category B	May 15, 19X5		\$1,150 price

Remarks: The Category C sale price was based on a special 20 percent discount for interorganizational transfers to Woven Systems.

### Exempt, Non-Exempt, or Investigate? Why?

4. DUMP Data Systems is offering 500 Part Number RST234 computer components on October 20, 19X5 at \$1,250 each. An attached catalog shows that \$1,250 is the catalog price and the Standard Form 1412 shows the following:

Catalog Identification and Date: DUMP Computer Parts, dated June 30, 19X4

Sales Period Covered: From July 1, 19X4 to September 30, 19X4.

U.S. Government Sales	1,000
Sales at Catalog Price to the General Public	6,450
Other Sales to the General Public	—

Sale 1:	Category B	Jan 15, 19X4 1,	200 Units	\$1,125 price
Sale 2:	Category B	Feb 1, 19X4	500 Units	\$1,250 price
Sale 3:	Category B	Mar 15, 19X4	200 Units	\$1,250 price

Remarks: The price for Sale 1 includes a 10 percent catalog discount for all sales over 1,000 units.

Exempt, Non-Exempt, or Investigate? Why?

### DOWNTOWN PRICES (Con't)

5. Liftoff Corporation is offering 100 Model 24 lifts on July 15, 19X5 at \$5,500 each. An attached catalog shows that \$5,500 is the catalog price and the Standard Form 1412 shows the following:

Catalog Identification and Date: Liftoff Corporation Catalog, dated June 1, 19X5

Sales Period Covered: From July 1, 19X5 to September 30, 19X5.

U.S. Gove Sales at C Other Sale	,	000 000 -		
Sale 1:	Category B	Jan 5, 19X5	200 Units	\$4,400 price
Sale 2:	Category B	Feb 1, 19X5		\$4,620 price
Sale 3:	Category B	Mar 15, 19X5		\$5,000 price

Exempt, Non-Exempt, or Investigate? Why?

### HAZARD CLEANERS

Hazard Cleaners submitted the only proposal received under an RFP for laundry services for laundry contaminated with hazardous waste. As the incumbent, Hazard Cleaners is the only known source of these services in the area. The proposed contract is a firm fixed-price requirements contract with delivery orders to be placed by the contracting officer. The proposed contract performance period is one year with four 1- year options. Estimated quantities are constant for each year of the contract.

The annual price totals proposed by Hazard Cleaners and detailed in the Government estimate are:

	HAZARD CLEANERS	GOVERNMENT ESTIMATE
Contract Base Year:	\$ 625,500	\$ 588,000
Year 2 Option	\$ 663,000	\$ 623,300
Year 3 Option	\$ 702,800	\$ 660,700
Year 4 Option	\$ 745,000	\$ 700,400
Year 5 Option	\$ 789,700	\$ 742,400
Total	\$3,526,000	\$3,314,800

The current year contract price is \$625,500 but the estimated quantities for the proposed contract are only about 94 percent of the quantities estimated for the prior contract. The Government estimate is based on the prior contract price and the reduced quantity requirements. Both Hazard and the Government base option prices on annual price increases of approximately six percent, the current level of change reflected in Government indices.

Because only one response was anticipated, the RFP required the offeror to submit cost or pricing data. Hazard Cleaners signed the SF 1411<sup>2</sup> but refused to provide cost data, taking the position that the form is not applicable to the firm. In a note on the SF 1411, the Hazard president stated that "Hazard Cleaners does not have a formal cost accounting system. In our business, we cannot afford an expensive staff of accountants and lawyers to meet unrealistic Government demands."

The comments on the SF 1411 reflect a long-standing position of Hazard Cleaner management. Repeated attempts to find alternative sources have failed. Another agency site has competitively awarded a contract to Hazard for similar services. Direct price comparisons are difficult because the quantities at the other site are only half of those estimated for the proposed contract. However, prices on that contract are 30 percent higher than those offered here.

Based on the available information and Hazard's refusal to submit cost or pricing data, the contracting officer decided to award a contract without further pursuit of FAR 15-804 requirements for cost or pricing data.

<sup>&</sup>lt;sup>2</sup>This is the required form for submitting of cost or pricing data.

### HAZARD CLEANERS (Con't)

1. Based on the above information, was the contracting officer's action proper?

2. What other actions might the contracting officer have taken in attempting to meet the requirements of FAR 15.804?

### CHAPTER 4 SELECT PRICE-RELATED FACTORS FOR AWARD

### **STRATEGY CHOICE**

Chapter 4 described seven different contract award strategies:

- A. Aggregate award of all line items to one contractor
- B. Multiple awards for different line items
- C. Family or group buys
- D. Progressive awards for portions of total line items
- E. Multiple awards for the same line item
- F. Split awards
- G. Partial Set-Aside Awards

Match the following procurement situations with the appropriate contract award strategy.

- 1. \_\_\_\_\_ You are preparing a solicitation for spare parts for a variety of electronic systems. The parts are of similar construction but different firms typically specialize in parts for different systems. It is possible that one firm could offer the best price on all the items but it is more likely that one of the firms specializing in a particular system will offer the best price on spare parts for that system.
- 2. You are preparing a solicitation for custodial services to be performed at your facility. Similar services are required for several different buildings. Services for each building in the facility will be a different line item in the solicitation. The facility is located about 20 miles from the nearest city.
- 3. \_\_\_\_\_ You are preparing a solicitation for the first production of a major system. The two contractors that have been involved in development of the system are the only two known sources. However, you are concerned that, once you award to either source, the other will lose its competitive production capability and your agency will be left in a sole-source situation.
- 4. \_\_\_\_\_ You are preparing a solicitation for engineering support services. There are several known sources including one or two small businesses. To maintain the greatest possible flexibility, you desire to have more than one potential source of support.
- 5. \_\_\_\_\_ You are a buyer responsible for establishing a contract to support the Federal Supply Schedule for copiers. The contract will be used to support Government activities nationwide. The needs of each activity will vary depending on its size, mission, and a number of other factors.

### **STRATEGY CHOICE (Con't)**

- 6. \_\_\_\_\_ You are preparing a solicitation for a requirements contract for production materials to support a variety of Agency operations. The market for these materials is extremely competitive but most of the suppliers are small. Many suppliers could provide a portion of the agency's needs for a particular material but only the one or two largest could supply all the needs.
- 7. <u>You are preparing a solicitation for food services to be performed at three locations in the same state</u>. The contract locations are 50-100 miles apart. General contract requirements will be the same at all three locations.

### FACTOR CHOICE

Chapter 4 described eight different price-related factors that should be considered for possible solicitation use.

- A. Quality-Related Costs
- B. Government Furnished Production and Research Property
- C. Transportation Costs
- D. Options or Multiyear Contracting
- E. Life-Cycle Costs
- F. Energy Efficiency and Conservation
- G. Lease vs. Purchase Considerations

Match the following procurement situations with the appropriate price related factor. If no factor is applicable, indicate by marking the space with an "N/A."

1. \_\_\_\_\_ You are preparing a solicitation for a large contract for complex electronic equipment built specifically to meet a Government requirement. The current requirement is for 100 units, one at each of 100 agency operating locations. If the product achieves the expected level of operational success, there may be a requirement for 150 additional units for other operating locations.

2. \_\_\_\_\_ You are preparing a monthly solicitation for common electronic components. You have received requests for the solicitation from about 50 electronics firms around the country. Even though clear quality requirements have been the same in all past contracts for these parts, users have frequently complained that quality has varied significantly between contractors. Quality assurance personnel confirm the variation but state that all products accepted were within "acceptable limits."

3. \_\_\_\_\_ The agency is remodeling facilities in the tri-state central offices. As part of this effort, the agency must acquire large quantities of furniture and office equipment. One of the major concerns is space utilization. The agency is under direction to demonstrate its dedication to efficient Government operation by minimizing space requirements even though everyone agrees on the number of personnel required to staff the new office.

4. \_\_\_\_\_ You are preparing a solicitation for a contract to furnish and install a new heating system in your current operating location. The architect-engineer has prepared detailed minimum efficiency standards for the new equipment. You have sent out a draft request for proposals (RFP) and several firms have responded, noting that the specifications do not represent the "state-of-the-art in heating efficiency."

5. \_\_\_\_\_ You have a requirement for equipment to support current operations at your location. The equipment represents a sizable investment, especially since your organization may be phased out in the next year, in the name or efficiency. The equipment can be leased but management is concerned about the added cost to the government.

### CHAPTER 5 APPLY PRICE-RELATED FACTORS

### LOADSTAR

Three vendors responded to a solicitation for delivery of commercial electronic components for the LOADSTAR Material Handling System.

SOOPER Electronics	Item #1 Item #2 Item #3	20 @ \$4,500 20 @ \$3,150 20 @ \$6,280	\$ 90,000 \$ 63,000 <u>\$125,600</u> \$278,600
GAG Systems	Item #1 Item #2 Item #3	20 @ \$4,000 20 @ \$3,000 20 @ \$6,400	\$ 80,000 \$ 60,000 <u>\$128,000</u> \$268,000
Reflex Industries	Item #1 Item #2 Item #3	20 @ \$4,200 20 @ \$2,990 20 @ \$6,800	\$ 84,000 \$ 59,800 <u>\$136,000</u> \$279,800

### FAR 52.214-10 and FAR 52.214-22 were included in the solicitation.

**FAR 52.214-10, Contract Award** — **Sealed Bidding** states, in part, that the Government "may (1) reject any or all bids, (2) accept other than the lowest bid, and (3) waive informalities or minor irregularities in bids received."

**FAR 52.214-22, Evaluation of Bids for Multiple Awards** states, in part, that it "is assumed, for the purpose of evaluating bids, that \$500 would be the administrative cost to the Government for issuing and administering each contract awarded under this solicitation, and individual awards will be for the items or combinations of items that result in the lowest aggregate cost to the Government, including the assumed administrative costs."

# 1. Evaluate the bids and determine which firm or firms should receive award under the solicitation.

2. What would be the contract price?

### AGENCY BLUE RIBBON

You are one of the first buyers in your agency to evaluate a major proposal under the Agency's new Blue Ribbon Contractor Program (BRCP). Under the program, a contract may be awarded to a firm on the Agency's Blue Ribbon Contractor List (BRCL) if that firm's price is within 10 percent of the price offered by a low offeror not on the BRCL.

Firms that achieve 98 percent on-time delivery and deliver products that meet Government requirements 98 percent of the time are eligible for the Agency's BRCL. Firms are evaluated for BRCL status by Federal Stock Class. As result, a firm can be considered as a Blue Ribbon contractor for one item and considered as a non Blue Ribbon contractor for another item.

You received six responses to your solicitation. Two are from firms on the BRCL. The prices and BRCL status of the six responses are outlined in the following table:

OFFEROR	BRCL?	OFFER	EVALUATED PRICE
Able Products	Yes	\$198,000	
Baker Sales	No	\$185,500	
Central Supply	No	\$178,000	
DARTRON Corp.	Yes	\$194,700	
Equine Ltd.	No	\$181,000	
Fox Industries	No	\$188,000	

1. Given the BRCL award criteria, which firm should receive the contract award?

2. Does a Blue Ribbon Contractor Program such as the one described above make sense for the Government?

### COOL WINDOW

You are developing a requirements contract for an estimated quantity of 1,000 window air conditioners. The purchase description calls for an: "Air Conditioner, Window with a cooling capacity of not less than 7,000 but less than 8,000 BTUs."

Energy costs are a substantial part of total cost of window air conditioner ownership over the unit's expected life of 15 years. As a result, you included the following award clause in the solicitation:

Award will be made to the firm whose offer will provide the lowest cost of acquisition and ownership to the Government during the lifetime of ownership, considering both price and energy cost. Estimates of energy will be based on BTU output, unit Energy Efficiency Rating (EER), and the estimated hours of operation.

The following formula will be used in offer evaluation:

 $\mathbf{L} = \mathbf{A} + \mathbf{B}(\mathbf{X})$ 

Where:

- L = Life Cycle Cost (present value dollars) of a product
- A = Initial cost of the product based on the price offered
- B = Sum of discount factors for the life of the air conditioner. (B = 7.61 for a constant flow of dollars over the expected 15-year air conditioner life discounted at 10 percent, (i.e. a discounted cost of \$1.00 cost each year for 15 years would be \$7.61).

$$X = (BTU) (PC) (OH) = (BTU) (\$.00008) (1,000) = (BTU) (\$.08)$$
  
EER EER EER

for this evaluation

- BTU = Minimum cooling capacity for the unit measured in British Thermal Units (BTUs). Furnished by the manufacturer for models offered
- PC = Power Cost (Dollars per watt-hour). [PC = \$.00008 in your area]
- OH = Operating hours per year. (OH = 1,000 in your area based on technical estimates).
- EER = Energy Efficiency Ratio. Furnished by the manufacturer for the models offered

### COOL WINDOW (Con't)

You have received the following offers:

OFFEROR	BTU	EER	UNIT PRICE
Wholesome Air	7,000	9	\$220.00
Air Movement	7,500	10	\$325.00
Joe's Air Conditioning	7,500	8.7	\$335.00
Plotnic Air	7,000	9	\$400.00

### 1. Calculate discounted energy cost.

OFFEROR	В	<u>(BTU) (\$.08)</u> EER	DISCOUNTED ENERGY COST
Wholesome Air			
Air Movement			
Joe's Air Conditioning			
Plotnic Air			

### 2. Calculate total of unit price and discounted energy cost to the Government.

OFFEROR	UNIT PRICE	DISCOUNTED ENERGY COST	TOTAL
Wholesome Air			
Air Movement			
Joe's Air Conditioning			
Plotnic Air			

**3.** Based on your evaluation of total price and discounted energy cost, which firm should receive the contract award?

### CHAPTER 6 COMPARE PRICES

### **TUFF AND HARDY TOOLS**

Two offers were received under a request for proposals (RFP) for 1,000 each of several general purpose wrenches. As shown in the table below, Tuff Tools was low on all items. During discussions with Tuff Tools, the contracting officer determined that the firm was planning to provide wrenches purchased from Loggins Tools. Loggins was the successful offeror on the last contract but was subsequently defaulted for failure to make timely deliveries. Because of the recent default, the contracting officer advised Tuff Tools that Loggins Tools was an unacceptable source of supply. As a result, Tuff Tools decided to provide tools produced in-house.

Tuff Tools' Best and Final Offer (BAFO) revised its price as a result of the negotiations. However, Tuff Tools remained the low offeror on all items. Hardy Tools' BAFO confirmed the firm's original offer. The following table summarizes relevant pricing information.

ITEM NO.	PREVIOUS UNIT PRICE	TUFF TOOLS UNIT PRICE ORIGINAL	TUFF TOOLS UNIT PRICE REVISED	HARDY TOOLS UNIT PRICE
1	\$2.70	\$5.15	\$7.30	\$ 8.40
2	\$2.75	\$5.20	\$6.35	\$7.60
3	\$3.20	\$5.45	\$8.00	\$10.00
4	\$3.75	\$6.55	\$7.50	\$8.65
5	\$4.20	\$7.55	\$9.45	\$10.40

In performing the price analysis, the contracting officer considered comparisons with both historical prices paid and the prices quoted by the two competitors.

ITEM	COMPARISON	COMPARISON	COMPARISON
NO.	TUFF TOOLS ORIGINAL	TUFF TOOLS	HARDY TOOLS UNIT
	<b>UNIT PRICE/PREVIOUS</b>	<b>REVISED UNIT PRICE/</b>	PRICE/TUFF TOOLS
	UNIT PRICE	PREVIOUS UNIT PRICE	REVISED
1	+ 90%	+ 170%	+ 15%
2	+ 89%	+ 131%	+ 20%
3	+ 70%	+ 150%	+ 25%
4	+ 75%	+ 100%	+ 15%
5	+ 80%	+ 125%	+ 10%

### TUFF AND HARDY TOOLS (Con't)

The contracting officer found that Tuff Tools' prices were fair and reasonable based on the available competition. The price determination noted that the price increases are due, in part, to the change in manufacturer as a result of the previous termination. The determination further noted that it is in the best interest of the Government to pay higher prices to obtain better quality supplies in a timely manner.

1. Do you concur in the contracting officer's decision?

2. What other actions might the contracting officer have taken in determining price reasonableness?

### WAGNER WORKS

Four firms submitted offers to produce 2,000 units of a cutting device made to Government specification. The four offers are summarized in the following table:

PRICE SOURCE	UNIT PRICE
Last Price (12 months ago)	\$10.00
Careless Cuts	\$10.50
Cuts Unlimited	\$10.60
Cut to Fit	\$11.45
Sharps	\$98.25

Careless Cuts was the low offeror. However, the firm received an unsatisfactory preaward survey. As result the firm was referred to the Small Business Administration (SBA) for a Certificate of Competency (COC) determination. By letter, the SBA advised the contracting office that Careless Cuts decided not to apply for a COC.

The second low offeror, Cuts Unlimited, received a positive preaward survey.

Cut Unlimited's price is 6 percent higher than the last price paid. Review of the appropriate Producer Price Index (PPI) revealed a 12 percent price increase since the last purchase.

Based on adequate price competition and price comparisons with historical prices adjusted for inflation, the contracting officer awarded to Cuts Unlimited.

### 1. Do you concur in the contracting officer's decision?

2. What other actions might the contracting officer have taken in determining price reasonableness?

## McPEAK UNIVERSITY

McPeak University is currently providing specialized education support services to an agency under a 1-year contract with four 1- year options. The contract is in the final option year. McPeak offers full college credit to all personnel who complete the courses offered under the contract.

To continue the required services, the agency issued a request for proposals (RFP) under full and open competition. Two institutions responded to the solicitation, McPeak and Mail Order Tech (MOT).

	PRIOR	GOVERNMENT	MCPEAK	MAIL ORDER
	CONTRACT	ESTIMATE	UNIVERSITY	TECH
Prior contract Year	\$ 900,000			
Base Contract		\$ 990,000	\$1,200,000	\$1,200,000
Option 1		\$1,089,000	\$1,300,000	\$1,200,000
Option 2		\$1,197,900	\$1,400,000	\$1,200,000
Option 3		\$1,317,690	\$1,525,000	\$1,200,000
Option 4		\$1,449,459	\$1,750,000	\$1,200,000
Total		\$6,044,049	\$7,175,000	\$6,000,000

Pricing information is provided in the table below.

After review of the technical proposal the source selection panel found that the proposal from MOT was technically unacceptable. The team found that the proposal demonstrated a lack of understanding of the statement of work to the extent that it would require a complete revision, tantamount to submission of a new proposal. The proposal was based on inadequate resumes, staffing, and experience in conducting training at the level and magnitude required. MOT was advised, in writing, that the technical deficiencies in its proposal were so great that it had been excluded from the competitive range.

An SF 1411 was not requested because the RFP was issued under conditions of full and open competition and McPeak University was not aware of its single source status. The McPeak compensation plan was reviewed in accordance with FAR 52.222-45 and 52.222-46 and found to be acceptable.

## McPEAK UNIVERSITY (Con't)

The price was found to be fair and reasonable based on price competition and previous contract price history. This decision was further supported by the compensation plan review.

1. Do you concur in the contracting officer's decision?

2. What other actions might the contracting officer have taken in determining price reasonableness?

## LEONARD'S LINENS

Your organization issued an RFP for hospital linen rental under procedures for full and open competition. A total of 30 firms requested copies of the solicitation. However, only one firm actually submitted a proposal, the incumbent contractor, Leonard's Linens.

The total proposed price for the 1-year contract is \$98,000. As part of the contracting officer's efforts to determine price reasonableness, Leonard's was asked to submit "any available pricing data." Leonard's submitted the attached SF 1412 with a single attachment, a price list for hospital linens.

Ітем	QUANTITY Estimate	Proposed Unit Price	Proposed Price	CATALOG UNIT PRICE	PRICE AT CATALOG	Govt Estimate Unit Price	Govt Price Estimate
Sheets	40,000	\$.45	\$18,000	\$1.35	\$54,000	\$.41	\$16,400
Operating Room Sheets	10,000	\$ .95	\$ 9,500	\$2.70	\$27,000	\$ .75	\$ 7,500
Pillow Cases	40,000	\$.26	\$10,400	\$ .55	\$22,000	\$.20	\$ 8,000
Bath Towels	40,000	\$.32	\$12,800	\$ .45	\$18,000	\$ .25	\$10,000
Operating Room Towels	30,000	\$ .55	\$16,500	\$ .65	\$19,500	\$ .50	\$15,000
Hand Towels	40,000	\$.12	\$ 4,800	\$ .30	\$12,000	\$ .08	\$ 3,200
Patient Gowns	40,000	\$ .40	\$16,000	\$1.00	\$40,000	\$ .36	\$14,400
Lab Coats	5,000	\$2.00	\$10,000	\$5.00	\$25,000	\$2.10	\$10,500
Total			\$98,000		\$217,000		\$85,000

Leonard's did not provide any information on possible discounts from the catalog prices outlined above. The Government estimate is based on the prior contract unit prices and the proposed contract quantities.

### LEONARD'S LINENS (Con't)

The contracting officer determined that the proposed price is reasonable, "based on comparisons of the proposed prices with current prices and the prices published in an existing catalog."

1. Do you concur in the contracting officer's decision?

2. What other actions might the contracting officer have taken in determining price reasonableness?

### **GOVERNMENT ESTIMATES**

Government estimates can be valuable bases for price analysis. In each price analysis situation, you must evaluate the value of any Government estimates that might be used as a base for price analysis. What is the value of the following Government estimates? High? Medium? Low? Why?

**1.** An estimate developed by a user who simply used the contract price from the most recent purchase.

2. An estimate developed as part of your organization's program to conduct an indepth review of the value of all high dollar value items. Items are torn down and examined in detail. Price estimates are developed based on material costs and manufacturing cost estimates.

3. An estimate based on the dollars budgeted for the acquisition.

4. An estimate developed by the user without specific documentation or support.

5. An estimate including a cost breakdown of all activities required for contract performance.

# CHAPTER 7 CALCULATE THE SHOULD-PAY PRICE

### SHADE ANALYSIS

You have been asked to help your office's Chief of Pricing, Mr. Green I. Shade, develop price indexes for Government estimate development and analysis of product prices.

YEAR	PRODUCT PRICE	INDEX
19X3	\$3,000	
19X4	\$3,150	
19X5	\$2,940	
19X6	\$3,195	
19X7	\$3,387	
19X8	\$3,660	

1. Develop indexes based on the following price data. Use 19X3 as the base year.

Use the index numbers just calculated to answer the following questions:

- 2. By what percentage overall did the price change between 19X4 and 19X8?
- 3. If an item was priced at \$5,000 in 19X4, estimate the price of the item in 19X8.
- 4. An item was priced at \$3,000 per unit in 19X4, what would you estimate that the price was in 19X5?
- 5. An item was priced at \$230 per unit in 19X6, estimate the price of the item in 19X8.

### SHADE ANALYSIS (Con't)

Price indices can be used directly in the evaluation of price reasonableness. Whenever price indices are being used, it is important to remember that the purchases are being made at two different times and the changing buying power of the dollar is only one element of the different purchase situations. Use the price indices calculated on the previous page to answer Questions 6 and 7.

6. In 19X7, your organization purchased 45 whats-its from Webster Works at a fair and reasonable price of \$2,200 each. It is now 19X8 and Webster is proposing a price of \$2,470 for each of the whats-its.

Based on your analysis, does the proposed price appear fair and reasonable? Why?

7. It is 19X8 and you have just received a proposal, from Brown Industries, for 1,000 gizmos at a price of \$85 each. You remember that once before you purchased gizmos. You pull the contract file and see that in 19X6 you paid \$65 each for 1,500 gizmos.

Based on your analysis, does the proposed price appear fair and reasonable? Why?

## LIGHT ESTIMATES

You are estimating a reasonable price for requirements contract for an office light fixture. There has been a requirements contract awarded for a contractor to supply this fixture in each of the past five years. Each year the estimated quantity has been approximately 1,000 units. Using this price history and available index numbers, estimate a reasonable unit price for the fixture.

YEAR	CONTRACT UNIT PRICE	INDEX NUMBER <sup>3</sup>	PRICE IN 19X7 \$
19X2	\$21.50	109.9	
19X3	\$21.35	108.8	
19X4	\$22.40	114.2	
19X5	\$23.75	121.2	
19X6	\$24.90	127.0	
19X7		133.5	

1. How can you use this information to estimate a reasonable price?

2. What is your estimate of a reasonable price?

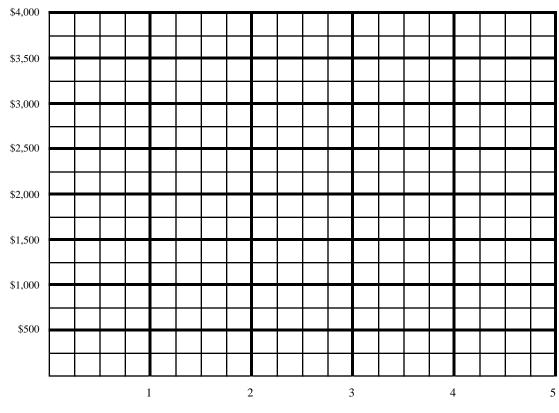
<sup>&</sup>lt;sup>3</sup>From the Producer Price Index for this class of items.

## **DOE-DOE CONTRACTING**

You are the contracting officer responsible for Doe-Doe purchases for your agency. Because of declining demand for the Doe-Doe outside the Government, the number of sources is declining. Because fewer sources are available, you have become increasingly concerned about price reasonableness. As a result, you have decided to attempt to identify the price breaks offered by the two remaining sources.

The first source that you consider is Apex Doe-Doe. You collect the following data from the last three purchases from Apex:

PURCHASE QUANTITY	TOTAL PRICE
500 units	\$750
1,500 units	\$1,250
4,000 units	\$2,500



### 1. Graph the data. Is there a relationship between quantity and price?

UNITS (IN THOUSANDS)

2. What is the apparent recurring component of total price per unit?

3. What is the fixed start-up cost of total price?

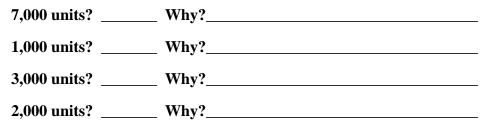
4. What is the equation for the line that best depicts the relationship identified above?

## **DOE-DOE CONTRACTING (Cont.)**

The other source that you consider is Baker Doe-Doe. You collect the following data from the last three purchases from Baker:

PURCHASE QUANTITY	TOTAL PRICE
1,000 units	\$1,250
4,000 units	\$2,000
8,000 units	\$3,000

- 5. Graph the data (using graph paper on next page). Is there a relationship between quantity and price?
- 6. What is the apparent recurring component of total price per unit?
- 7. What is the fixed start-up component of total price?
- 8. What is the equation for the line that best depicts the relationship identified above?
- 9. Based on the above information, how would you describe the differences in the production methods used by the two firms?
- **10.** Based on the above information, what unit price would you predict to be most likely for a quantity of:



## MAGIC ELECTRONIC SYSTEMS

Magic Electronic Systems (MES) is a long-time supplier for electronics systems and spare parts to the Government. Your organization is responsible for contracting for spare parts for the MES 100. Until now, you have contracted for three different boards, Part Numbers SS124200, SS124300, and SS124350. You recently received your first request for Part Number SS124440, a total of 100 units. The Government has never bought this item as a spare part before, but design data indicates that the manufacturing process is similar that used to produce the other three MES 100 boards.

You have decided to attempt to use the available data to estimate the price of the new part. Government engineers advise that the best independent variable to use in your analysis is total parts. They have provided you with the following information:

PART NUMBER	Price	TOTAL PARTS	PRICE PER PART
SS124200	\$210	40	\$5.25
SS124300	\$360	70	\$5.15
SS124350	\$260	50	\$5.20
SS124440		60	

1. Given the available data, what range of prices per part appear reasonable?

2. If there is no trend in the data, what price per part would be the best estimate?

3. If there is a trend in the data, what price per part would be the best estimate?

## JUSTINS JANITORIAL

Your organization is about to move to a new facility. You have been assigned the job of negotiating a Small Disadvantaged Business [8(a)] set-aside contract for janitorial services. The Small Business Administration has selected, Justins Janitorial, to receive the contract. The contract price offer is \$448,000. As you prepare for negotiations, you must determine if the price is fair and reasonable. In order to assist you in your analysis of price reasonableness, you have obtained data on custodial services contracts at "similar nearby facilities." That information and the Government estimate are summarized in the following table:

LOCATION	CONTRACT PRICE	SQUARE FEET	PRICE PER SQUARE FOOT
Site 1	\$400,000	300,000	\$1.33
Site 2	\$420,000	325,000	\$1.29
Site 3	\$425,000	370,000	\$1.15
Site 4	\$450,000	420,000	\$1.07
Govt Estimate	\$437,500	350,000	\$1.25
Justins	\$448,000	350,000	\$1.28

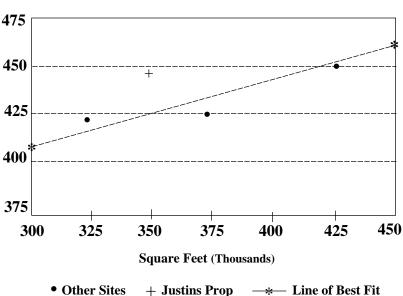
1. Given the available data, what range of prices per square foot appear reasonable?

2. If there is no trend in the data, what price per square foot would be the best estimate?

## JUSTINS JANITORIAL (Con't)

**3.** Examine the following graphical presentation of the data gathered from the other nearby facilities and the Justins proposal. What does the graph indicate?

# JANITORIAL SITE PRICE COMPARISON



Contract Price (Thousands)

4. Does the proposed price appear to be fair and reasonable? Why?

5. If there is a trend in the data, what price per square foot would be the best estimate?

## PALADIN PROTECTION

In response to an RFP for guard services, you received three offers. The low offer, \$380,000 came from Paladin Protection. The other offers are \$390,000 and \$425,000. In order to assist you in your analysis of price reasonableness, you have obtained data on guard service contracts at "similar facilities" at nearby locations. That information and the Government estimate are summarized in the following table:

LOCATION	Total Contract Price	Total Labor- Hours	First- Line Labor- Hours	Price per First- Line Labor- Hour	DOL Labor Rate	Price/ First- Line Wage Ratio
1	\$500,000	40,000	35,400	\$14.12	\$8.25	1.71
2	\$375,000	26,850	24,790	\$15.13	\$8.25	1.83
3	\$450,000	33,460	30,270	\$14.87	\$8.50	1.75
4	\$425,000	31,690	29,320	\$14.50	\$8.30	1.75
Govt Est	\$400,000	32,553	24,950	\$16.03	\$8.60	1.86
Paladin	\$380,000	32,553	24,950	\$15.23	\$8.60	1.77

1. Given the available data, what range of price/first-line wage ratios appears to be reasonable?

2. Given the available data, what price/first-line wage ratio appears to be the most reasonable?

3. Does the price appear to be fair and reasonable? Why?

# CHAPTER 8 ACCOUNT FOR DIFFERENCES

### **QUALITY TRAINING**

Your agency is contracting for training services to present a course entitled Total Quality for Managers.

Offerors are required to submit firm fixed-prices for 10 offerings of the 5-day course, at various locations. Prices must include instructor compensation, travel, and lodging required to present the offerings. Courses will be offered according to the following schedule:

Jan 7	- Jan 1	1
	Jan 22 - Jan 2	26
	Jan 29 - Feb	2
	Jan 29 - Feb	2
	Feb 4	- Feb 8
	Apr 8	- Apr 12
	Jul 15 - Jul 1	9
	Aug 19	- Aug 23
	Nov 4 - Nov	15
	Jan 7	Jan 22 - Jan 2 Jan 29 - Feb 2 Jan 29 - Feb 2

Each offer must include a management plan that demonstrates the location and availability of at least 10 qualified instructors. Each instructor must have a masters degree in engineering, 10 years of successful quality assurance related experience, and four years successful teaching experience.

Award criteria state in part:

Award will be made to the technically acceptable offeror with the lowest aggregate total price.

Four offers were received.

# QUALITY TRAINING (Con't)

CRITERIA	LOS ANGELES QUALITY	WASHINGTON INDEPENDENTS	WASHINGTON CENTRAL	DAYTON/DC ASSOCIATES
Number of Instructors	11	10	10	10
Engineerin g Education	All have masters degrees	8 with masters degrees 2 with Ph.D.	2 with bachelors* 8 with masters degree	10 with masters degrees
QA Experience	All have 10 years Average 15 years	All have 10 years Average 14 years	All have 10 years* Average 15 years	All have 10 years Average 16 years
Teaching Experience	All at least 4 years Average 6 years	All at least 4 years Average 7 years	All at least 4 years* Average 6 years	All at least 4 years Average 5 years
Location & Availabilit y	All in LA Head- quarters All	At least 1 within 15 miles of each training location Consultants currently under	All in DC Headquarters All permanent employees	5 in Dayton 5 in DC Consultants currently under
	permanent employees	contract	employees	contract

The following table summarizes the results of the initial technical evaluation:

\* The two instructors with bachelors degrees both have over 20 years of excellent quality assurance experience including extensive consulting. One has 7 years teaching experience, the other 6 years.

The following table summarizes the proposed prices:

OFFERING	GOV'T	LA	WASH	WASH	DAY/DC
	EST	QUALITY	IND	CENTRAL	ASSOC
Pittsburgh	\$4,278	\$4,578	\$2,925	\$2,978	\$4,297
Little Rock	\$4,294	\$4,294	\$2,925	\$2,994	\$4,013
Dayton	\$4,272	\$4,572	\$2,925	\$2,972	\$2,969
Washington	\$3,250	\$4,262	\$3,250	\$2,925	\$2,969
Detroit	\$4,436	\$4,636	\$2,925	\$3,136	\$4,355
Washington	\$3,250	\$4,262	\$3,250	\$2,925	\$2,969
Dayton	\$4,272	\$4,572	\$2,925	\$2,972	\$2,969
New York	\$4,632	\$4,632	\$3,250	\$3,332	\$4,351
Los Angeles	\$4,220	\$3,250	\$3,250	\$2,920	\$3,939
Little Rock	\$4,294	\$4,294	\$2,925	\$2,994	\$4,013
Total	\$41,198	\$43,352	\$30,550	\$30,148	\$36,842

## **QUALITY TRAINING (Con't)**

1. If you were to award without negotiations, given the award criteria provided and the information provided, which offeror would you select for award? Why?

2. The Government estimate was developed assuming that the work would be performed by a contractor located in the Washington, DC area, with instructors traveling from Washington to the offering sites. Washington Central proposes to operate in that manner yet the firm's proposed price is \$11,050 less than the Government estimate. What factors do you think affect this difference?

**3.** The proposal of Washington Independents is \$10,648 less than the Government estimate. What factors do you think affect this difference?

4. Los Angeles Quality has the highest proposed price. What factors do you think affect this difference?

# CHAPTER 9 PRICE-RELATED DECISIONS IN SEALED BIDDING

### WELL-BUILT

You are the contracting officer for construction of a new garage facility. The Government price estimate and the four bids received are compared in the table below:

SOURCE	TOTAL PRICE
Government Estimate	\$275,000
DARMIN Construction	\$280,500
Well-Built Construction	\$175,000
Bolton Builders	\$260,000
Carlton Construction	\$265,750

1. You are concerned about the price bid by Well-Built Construction. It appears that Well-Built may have made a mistake. What should you do?

2. Well-Built alleges that the firm made a mistake in the bid. They further allege that the bid should have been \$259,500. Under what conditions would the firm be permitted to correct the mistake?

### WELL-BUILT (Cont.)

**3.** In your review of the Well-Built bid and the data submitted to support their claim of a mistake, you determine that the firm most likely made a mistake but you cannot determine the actual bid intended. What should you do?

4. Well-Built confirms the bid as originally submitted, but the management refuses to provide working papers to support the bid. The Government engineer reviews the bid and advises you that the work cannot be done for the price bid. What should you do?

## **BROWN, SMITH, AND JONES**

You are evaluating bids for a requirements contract to supply materials for operational repairs. The Government quantity estimate is based on the Government's expected item use during "normal operations." In the past, actual requirements of individual items have varied by as much as  $\pm 80$  percent.

The Government unit price estimate is based on the current requirements contract with Jones Products.

The award criteria in the invitation for bids (IFB) provide for an aggregate award to the firm with the low responsive, responsible, bid.

ITEM NUMBER	GOVERNMENT QUANTITY ESTIMATE	GOVERNMENT UNIT PRICE ESTIMATE	BROWN WAREHOUSE UNIT PRICE	SMITH SUPPLY UNIT PRICE	JONES PRODUCTS UNIT PRICE
1	5,000	\$1.45	\$1.45	\$1.50	\$0.30
2	12,750	\$2.05	\$2.05	\$2.00	\$1.75
3	24,500	\$0.30	\$0.30	\$0.32	\$0.64
4	30,600	\$0.22	\$0.22	\$0.20	\$0.40
5	6,250	\$2.00	\$2.00	\$2.00	\$0.25
6	10,300	\$0.50	\$0.50	\$0.45	\$0.90

Your assistant has calculated the total Government estimate and bid prices by line item.

ITEM NUMBER	GOVERNMENT TOTAL PRICE ESTIMATE BY ITEM	BROWN WAREHOUSE PRICE BY ITEM	SMITH SUPPLY PRICE BY ITEM	JONES PRODUCTS PRICE BY ITEM
1	\$7,250.00	\$ 7,250.00	\$ 7,500.00	\$ 1,500.00
2	\$26,137.50	\$26,137.50	\$25,500.00	\$22,312.50
3	\$7,350.00	\$ 7,350.00	\$ 7,840.00	\$15,680.00
4	\$6,732.00	\$6,732.00	\$ 6,120.00	\$12,240.00
5	\$12,500.00	\$12,500.00	\$12,500.00	\$ 1,563.50
6	\$5,150.00	\$5,150.00	\$ 4,635.00	\$ 9,270.00
Total	\$65,119.50	\$65,119.50	\$64,095.00	\$62,565.00

1. Based only on the information presented above, which firm would you recommend for contract award? Why?

## BROWN, SMITH, AND JONES (Con't)

2. Outline the major points that you would use to support your decision.

3. What documentation would be required to support your decision?

4. What additional information would you normally attempt to obtain before making your decision?

## JANITORIAL PRICE

Your office is responsible for contracting for janitorial services for your facility. For years, the annual janitorial service contract has been set-aside for small business.

You are currently evaluating bids for the next annual contract due to begin in two months.

SOURCE	TOTAL PRICE
Government Estimate	\$255,000
Small Janitorial Services	\$298,000
Little Custodians	\$310,000
Micro Cleaning	\$297,000
Large Janitorial	\$250,000

As you can see the low bidder is Large Janitorial at a price \$5,000 below the Government estimate and \$47,000 below the second low bidder. Unfortunately, Large Janitorial is a large business, and is therefore nonresponsive to the terms of the IFB.

The Government estimate is based on the historical contract price plus an adjustment for inflation.

### 1. Given the above information, what actions might you take?

2. What additional information would be useful in making your decision as to what action to take?

**3.** Given only the information above, what action appears to be most advantageous to the Government?

# CHAPTER 10 PRICE-RELATED DECISIONS IN NEGOTIATIONS

## MORE QUALITY TRAINING

In Chapter 8, you completed the "Quality Training" case. Given all the information that you collected and analyzed concerning the pricing of the training requirement, answer the following questions.

1. Would you require cost or pricing data? Why?

2. If you required data, would you plan to require certification?

**3.** If you elect to negotiate, which firm or firms would you include in the competitive range? Why?

## HARRISON SYSTEMS

Your agency has issued an RFP for a special film and film processing services (with separate line items for the film and processing) for cameras mounted outdoors at remote sites in a large Federal reservation. The cameras are programmed to shoot at set times (both in daylight and at night) over a six month period. Film is collected weekly and flown to the contractor for processing.

The RFP includes several performance specifications. Specifications for the film cover such matters as temperature extremes, film life, and sensitivity to light. No commercially available film satisfies the specifications. The processing specifications require the use of computers to brighten and enhance the color and clarity of filmed images—especially photos taken at night.

These services are presently provided by <u>Hamilton</u>. Your requirements managers have been very pleased with Hamilton's product. The price of the prior contract, adjusted for inflation and for the period of time at issue (i.e., six months) is \$800,000 — \$100,000 for the film and \$700,000 for processing. The \$700,000 includes the cost of a subcontract with Graphic Enhancements, Inc. Graphic provides proprietary mainframe software that it — like all other potential subcontractors— makes available only on a timesharing (i.e., "leased") basis. As part of your market research, you obtained information on the retail price of such leases offered by Graphics and its rivals. Currently, the lowest retail price (including all costs for computer time and data storage) is \$50,000 per month.

Given this information, the requiring activity has prepared the following Government Estimate for the work being solicited, assuming that it is performed using traditional mainframe software:

Film:	\$100,000	
Processing:	\$700,000	(\$300,000 for six months of computer support + \$400,000 for all other costs.)
Total:	\$800,000	

You have independently confirmed this estimate by applying an established Cost Estimating Relationship (CER) for this type of work, which relates the number of shots to be processed with an average cost of processing (based on prices from prior contracts, adjusted for inflation). The CER produced an estimate (excluding film) of \$735,000  $\pm$  \$35,000.

You have received the following three offers.

OFFEROR	FILM	PROCESSING	TOTAL PRICE
Harrison	\$75,000	\$680,293	\$755,293
Hamilton	\$90,000	\$760,782	\$850,782
Jordan	\$200,000	\$1,500,000	\$1,700,000

Harrison's proposal and related factfinding has revealed the following:

• Harrison has purchased outright (not leased) a new microcomputer based software and hardware package for enhancing film images that has just been introduced to the market by Homegrown Graphics, Inc. (In contrast, Hamilton and Jordan both indicated that they are continuing to rely on proprietary mainframe software available from such firms as Graphic Enhancements, Inc.) • During factfinding, your technical staff asked many questions to determine the technical acceptability of work produced by using Homegrown's software and hardware but were not entirely satisfied with the answers.

Following the factfinding session, you contacted Homegrown Graphics, Inc. The retail price for its software and hardware (including the microcomputers) is \$90,000. Homegrown's brochure for its microcomputer package boasts that two of its customers realized tremendous savings from using a "beta" version of its product rather than available mainframe packages—in part because the microcomputer package (which it contends is more "user friendly"), requires fewer labor hours and less skilled labor to achieve comparable results.

Given this information, the requiring activity has prepared a second Government Estimate for the work being solicited, assuming that it is performed with Homegrown's package.

 Film:
 \$100,000

 Processing:
 \$490,000

 Sponder
 \$590,000

- 1. What issues would you raise with Harrison to persuade Harrison to submit a lower priced BAFO?
- 2. Assuming that the Harrison approach IS technically acceptable, should the contracting officer require Harrison to provide cost data?
- **3.** If the Harrison approach is NOT technically acceptable, is the price competition adequate?
- 4. What issue or issues may not be raised in discussions with Hamilton?
- 5. Is there any possible tradeoff between price and other terms and conditions?
- 6. Might there be any advantage in canceling and resoliciting?

## MOVER DECISION

Your office has the responsibility to contract for the materials handling equipment to support all agency warehouse operations. The backbone of materials handling operations is the MOVER MODULE an automated modular materials handling system. The MOVER MODULE is not a single product. Instead it is an interoperability concept. The capability of MOVER MODULES to be configured in an almost infinite variety of configurations makes the MOVER MODULE a relatively low cost solution to most materials handling requirements.

The MOVER MODULE concept was developed by Materials Innovation Corporation under agency contract. The unique design and production methods required to produce the MOVER MODULE necessitate adherence to stringent agency interoperability requirements. Over the past four years, three firms have met stringent agency qualification testing requirements to assure complete interoperability: Materials Innovation Corporation, Materials Systems, and Automated Electronics.

To maximize the benefits of competition, your agency awards an annual contract to a single supplier for all projected requirements for the year. The following table summarizes acquisitions over the last three years.

YEAR	CONTRACTOR	QUANTITY	UNIT PRICE
19x1	Materials	20	\$75,000
	Innovation Corp		
19x2	Materials Systems	75	\$70,000
19x3	Materials Systems	80	\$69,000

You are currently negotiating a contract for the 19x4 annual requirement, 100 units. The Government estimate is \$6,900,000.

All three qualified sources were solicited and each submitted a proposal. You have conducted negotiations and each firm has submitted a best and final offer (BAFO):

Proposed prices are:

CONTRACTOR	UNIT PRICE	TOTAL PRICE
Materials Systems	\$65,000	\$6,500,000
Materials Innovation Corp	\$71,000	\$7,100,000
Automated Electronics	\$70,000	\$7,000,000

This morning, you received a telephone call from Carl Testi, chief of the independent testing organization approved for potential source qualification testing. He informed you that Morgan Materials, a noted high-quality low-cost materials handling equipment producer, just passed the last phase of qualification testing. Official approval will follow within five working days.

Later this morning, you received a telephone call from Manfred Morgan, President of Morgan Materials. He told you that he knows you are currently in negotiations for the annual MOVER MODULE acquisition. He also told you that if his firm could be included in the competition he could offer "substantial savings" over the prices in recent contracts.

## MOVER DECISION (Con't)

Now you have a decision to make. Should you go ahead and award a contract based on the current negotiations, or should you cancel the RFP and begin again with four sources.

**1.** Can you legally cancel the current RFP and resolicit for essentially the same requirements?

2. If you can legally cancel the current RFP and resolicit, how should you decide what to do in this situation?

**3.** What additional information would you want to obtain before you make your decision?

# CHAPTER 11 DOCUMENTATION

### **TOOL STORY**

Your agency is concerned about the quality of pricing documentation. As part of the quality improvement process, you have been asked to review the price analysis documentation prepared by other contracting officers.

1. Evaluate the strengths and weaknesses of the price analysis documentation on following pages.

2. As a contracting officer, what additional information would you like to see?

**3.** As a member of the Agency Inspector General's staff, what additional information would you expect to see?

4. As an auditor for the General Accounting Office, what additional information would expect to see?

5. Are your answers to Questions 2 - 4 different? Why?

## TOOL STORY (Con't)

#### PRICE ANALYSIS IFB XXX-X9-1244

Invitation for bids (IFB) XXX-X9-1244 was issued on January 15, 19X9. The IFB award criteria provided for aggregate award to the overall low, responsive, responsible bidder on all items.

Bids were solicited from 180 previous and potential suppliers of hand tools. Four bids were received. The total line item prices and relevant price comparisons are shown in the table below:

LINE ITEM	LOW BID TOTAL LINE ITEM PRICE	PERCENTAGE CHANGE FROM CURRENT	SECOND LOW TOTAL LINE ITEM PRICE	PERCENTAGE CHANGE LOW TO SECOND LOW
1	\$19,450	+100	\$25,285	+30
2	\$ 5,500	+145	\$ 6,875	+25
3	\$ 9,125	+110	\$11,405	+25
4	\$ 3,800	+115	\$ 4,788	+26
5	\$ 1,950	+ 55	\$ 2,535	+30
6	\$ 1,450	+ 35	\$ 1,378	- 5
7	\$11,900	+ 50	\$11,305	- 5
8	\$ 8,000	+ 45	\$ 7,600	- 5
9	\$ 6,250	+ 55	\$ 5,940	- 5
10	\$ 5,800	+ 45	\$ 6,670	+15
11	\$42,800	+110	\$55,640	+30
12	\$20,500	+170	\$25,625	+25
13	\$ 4,250	+ 15	\$ 4,165	- 2
14	\$11,200	+ 20	\$13,440	+20
15	\$ 2,900	+ 30	\$ 3,685	+27

The relevant Producer Price Index has increased from 131.2 to 149.6 an increase of 14 percent. Although the PPI does not support the price increases shown above, prices are considered realistic for the following reasons:

- 1. The prices are based on competition. Most line item prices are 15 to 30 percent lower than the prices of the second low bidder.
- 2. The Qualified Product List (QPL) requirement for these items has been eliminated since the last contract. All items must now pass first article testing at the contractor's expense. It should be noted that the prior contract holder did not bid on this contract because of the first article testing requirement.

### ACME STORY

Your agency is concerned about the quality of price negotiation memoranda (PNMs). As part of the quality improvement process, you have been asked to review the PNMs prepared by other contracting officers.

1. Evaluate the strengths and weaknesses of the price analysis documentation on following pages.

2. As a contracting officer, what additional information would you like to see?

**3.** As a member of the Agency Inspector General's staff, what additional information would you expect to see?

4. As an auditor for the General Accounting Office, what additional information would expect to see?

5. Are your answers to Questions 2 - 4 different? Why?

## ACME STORY (Con't)

#### PRICE NEGOTIATION MEMORANDUM RFP XXXX-X9-1234

### PURPOSE OF THE NEGOTIATION

The purpose of the negotiation is to award a new contract for ACME Systems', Part #3145409 for the ACME WAMPUM System.

### **DESCRIPTION OF THE ACQUISITION**

This negotiation is performed under request for proposal (RFP) XXXX-X9-1234, on a solesource basis with ACME Systems. The RFP was issued on March 20, 19X9 and closed on April 20, 19X9. No amendments were issued. There was only one line item on the RFP, 200 units of Part #3145409.

### **NEGOTIATION PARTICIPANTS**

ACME Systems: Andrew Acme, President

**Government:** Harry Sly, Contracting Officer

### **CERTIFIED COST OR PRICING DATA EXEMPTION**

Certified cost or pricing data were not required based on the SF 1412, Claim for Exemption from Submission of Certified Cost or Pricing Data. Review of the SF 1412, reveals that 60 percent of all sales are commercial and 80 percent of commercial sales are made at catalog price.

### SUMMARY OF CONTRACTOR'S PROPOSAL

ACME proposed \$2,600 each.

### SUMMARY OF GOVERNMENT ANALYSIS AND OBJECTIVES

#### Analysis

The proposed price is 10 percent higher than the last contract for the part which was negotiated 12 months ago. Since the last contract award, the relevant Producer Price Index has only increased four percent.

The SF 1412 shows that the current catalog price is \$2,600. However, the quantity of most sales is 5 to 10 units. The only commercial sale not made at catalog price was 50 units for \$2,500 made to Bander Trust.

An analysis of ACME Systems future in the <u>Wall Street Journal</u>, on April 16, 19X9, indicated that demand for the WAMPUM System is expected to remain strong for the foreseeable future.

## ACME STORY (Con't)

#### **Negotiation Objectives**

- **Maximum:** \$2,500 per unit based on the price paid by Bander Trust for a quantity of 50 units.
- **Objective:** \$2,458 per unit based on the last purchase price plus four percent, the inflation reflected in the PPI.
- **Minimum:** \$2,184 per unit. If ACME can offer a four percent discount to Bander Trust for 50 units, it is reasonable to ask for a discount of 16 percent for 200 units.

### **NEGOTIATED PRICE**

Negotiations resulted in a price of \$2,400. The price is considered reasonable based on the last contract price and the established ACME catalog price.

## CHEMICAL CAPERS

You are evaluating bids for and indefinite quantity contract for a chemical cleaning compound. The minimum quantity is 100 barrels; the maximum is 1,000. You received three bids, one from a large manufacturer and two from small dealers.

The apparent low bidder, Hazard Chemical, presented a bid of \$125 a barrel, 50 percent of the Government estimate. The Government estimate is the price paid last year for a similar quantity. Unfortunately, Hazard Chemical, received a negative preaward survey and elected to not request a Certificate of Competency from the Small Business Administration.

The second low bidder, CHEM Chemical, was found to be nonresponsive at the time of bid opening. CHEM was found to be nonresponsive, because the firm qualified its bid by substituting its part number for the Federal Specification in the item description.

The third low bidder, Fine Chemicals, submitted a bid that exceeded the current price by 95 percent. Fine Chemicals is a dealer.

The relevant producer price index increased from 129.5 to 145.8 since the last purchase.

### 1. Based on the available information, what action would you recommend?

### 2. What documentation would be required?