

PROCUREMENT UNDER GOVERNMENT CONTRACTS

PRICE ANALYSIS GUIDEBOOK

1.0 INTRODUCTION

Price analysis must be performed on all Government procurements valued at over \$3,000 (the current Federal Acquisition Regulation (FAR) micro-purchase threshold). The objective of price analysis is to ensure that prices paid by Government contractors are fair and reasonable. This is a higher standard than the commercial practice of “whatever the market will bear”. Price analysis incorporates various techniques to accomplish this objective. This guidebook presents those techniques and provides guidance on how to negotiate and document fair and reasonable prices.

The responsibility for applying various price analysis techniques rests with the Buyer/Subcontracts Administrator (B/SCA). ‘B/SCA’ in this guidebook refers to the procurement representative responsible for the procurement. The particular technique chosen, and the extent of the analysis, will depend on:

- The type of product or service
- Dollar value of the procurement
- Urgency of the requirement
- Experience and expertise of the B/SCA

If price analysis and negotiation fail to achieve fair and reasonable prices, cost analysis may be performed. Ask the supplier for a detailed cost breakdown of the proposal cost elements.

The goal of this guidebook is to facilitate the attainment of procurement prices that are:

- Compliant with Government guidelines
- Supportable in customer audits
- In the best interest of the contractor/subcontractor

1.1 Definitions

“Price justification” is not the same as price analysis. Price justification begins with the proposed price and “backs into” supporting evidence to show that the price is fair and reasonable. Price justification does not yield a recommended position. Proposed prices are rarely challenged using this approach. The result may not be in the best interest of the company.

Price analysis incorporates factors independent of the proposed price. Price analysis yields a recommended position on what the product or service “should cost”. The recommended position determines if the proposed price is fair and reasonable or if negotiation is required. The result is a price based on price analysis and negotiation. The following definitions are provided to aid the B/SCA in understanding this guide:

- **Price Analysis:** The process of evaluating a proposed price without evaluating the individual cost elements or profit.
- **Cost Analysis:** The process of evaluating individual cost elements and profit as proposed by a supplier.
- **Certified Cost or Pricing Data:** That which is required by Public Law 87-653 (Truth in Negotiations Act (TINA)). Implemented by FAR Clause 52.215-12. When applicable, requires cost analysis in accordance with FAR Part 15.404-1.
- **Fair and Reasonable:** What a prudent person would pay for a product or service under current market conditions with B/SCAs and suppliers free to bargain.
- **Negotiation:** The process of bargaining/discussions between B/SCAs and suppliers to reach a mutually-satisfactory agreement on price, terms and conditions, etc.

1.2 Applicability

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The requirement for price analysis applies to all procurements and all contract types, including:

- Government contracts
- Commercial contracts
- International contracts
- Firm Fixed Price (FFP)
- Labor Hour (LH)
- Time and Materials (T&M)
- Cost Reimbursable (CPAF, CPFF, CPIF, etc.)

The requirement also applies to all dollar values, with the following notations:

- >\$3,000: Informal price analysis is required (FAR micro-purchase threshold)
- ≥\$30,000: Formal written price analysis is required
- ≥\$700,000: Cost analysis may be required (TINA threshold) (if FAR Clause 52.215-12 is in the prime contract and contractor will be required to sign a Certificate of Current Cost or Pricing Data)

1.3 Responsibility

The B/SCA is responsible for the price paid by the contractor. This responsibility includes:

- Performing price analysis
- Negotiating fair and reasonable prices
- Documenting the results

The B/SCA may require the assistance of other functional areas in fulfilling this responsibility. This assistance could include:

- Audit assistance
- Technical evaluations
- Legal advice

The B/SCA is responsible for acquiring such assistance and incorporating the results into a single price analysis document.

1.4 Hierarchy of Price Analysis Techniques

Seven basic price analysis techniques are presented in the flowchart below. The flowchart incorporates a hierarchy of price analysis techniques, showing the most desirable techniques first, and others in descending order.

The process begins with the question “Is the price fair and reasonable based on ...?” The various techniques are then addressed in the following order:

1. **Adequate Price Competition:** This is the most preferred price analysis technique. The stimulus of competition yields the best obtainable price. If adequate price competition exists (see Section 2.1), the B/SCA summarizes all bids and documents the price analysis in the procurement file.
2. **Catalog or Market Price:** Catalogs and published price lists (including GSA Federal Supply Schedules (FSS)) are a product of a competitive market place. As an analysis technique, this is much less desirable than adequate price competition. Catalogs or market price lists are often overstated (see Section 2.2). If there is a catalog or price list, include a copy of the document in the procurement file. Further, when utilizing this price analysis method, the B/SCA must obtain a Supplier Commercial Sales Certification before executing the contemplated

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subcontract/purchase order. **If the supplier cannot provide a commercial sales certification, another price analysis method must be used.**

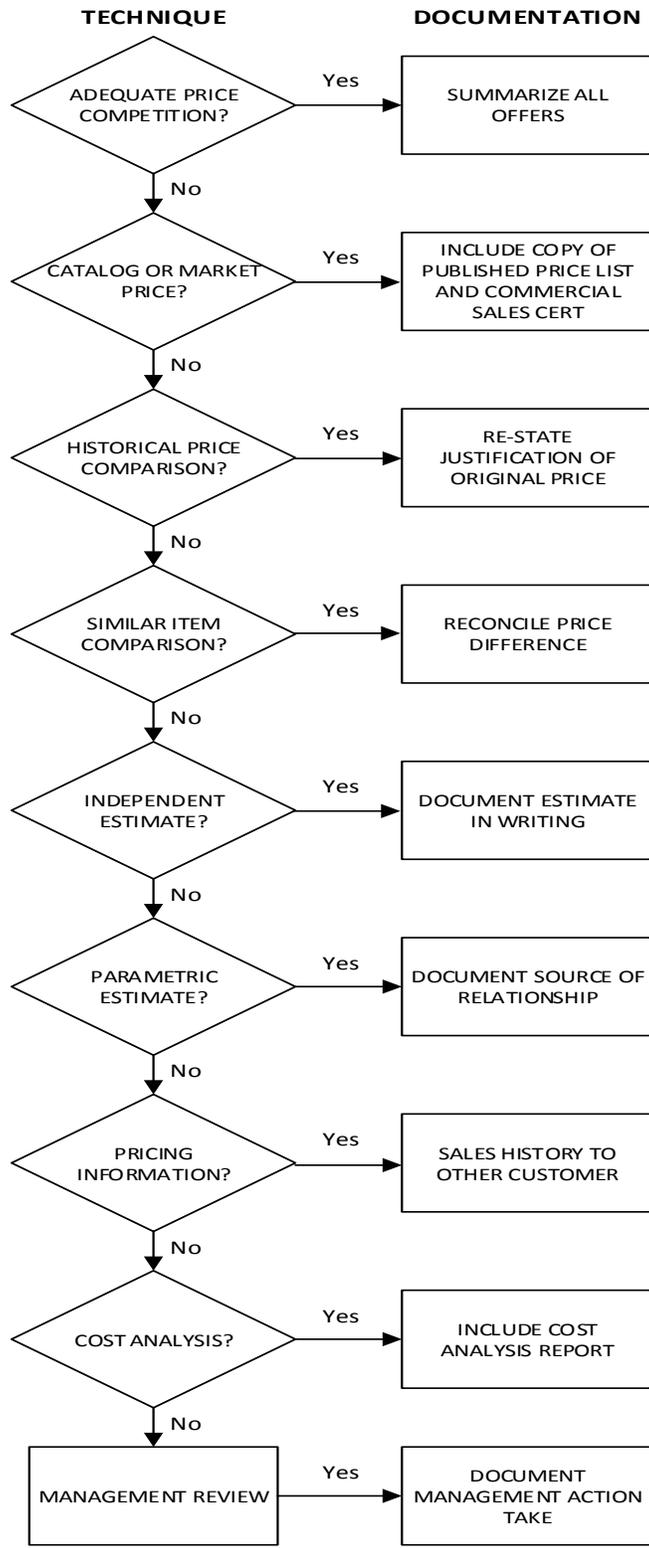
3. **Historical Prices:** Historical prices paid for the same item in the past are a good basis for price analysis in the future. If a historical price is available (see Section 2.3), the B/SCA must provide evidence and analysis of the last price paid.
4. **Similar Products:** Similar products usually have similar prices. If the contractor has purchased a similar product (see Section 2.4), the B/SCA reconciles the price difference between the 2 products.
5. **Independent Estimate:** An independent estimate determines what it should cost the supplier to produce the item or provide the service. If an independent estimate is appropriate (see Section 2.5), the B/SCA documents the estimate in writing.
6. **Parametric Estimates:** This technique incorporates cost estimating relationships and rules of thumb. If this type of information is available (see Section 2.6), the B/SCA documents the source of the data.
7. **Pricing Information:** Provided by the supplier, this is the last technique. When independent techniques fail to establish a fair and reasonable price, ask the supplier to support the proposed price. This usually includes sales history to other customers (see Section 2.7).

If price analysis alone fails to show that a price is fair and reasonable, the B/SCA must negotiate with the supplier. By definition, the result of the price analysis and negotiation will be a “fair and reasonable” price.

If none of the above techniques are applicable to the procurement, cost analysis may be performed. If the cost analysis and negotiation fail to show that the price is fair and reasonable, management review may be required. The B/SCA retains the responsibility to document any management actions undertaken.

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**PRICE ANALYSIS TECHNIQUES
(FOR USE WHEN PUBLIC LAW 87-653 DOES NOT APPLY)
IS THE PRICE FAIR AND REASONABLE BASED ON...?**



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1.5 Single/Sole Source Procurement

Use adequate price competition to the maximum extent practical. Whenever the conditions of adequate price competition are not satisfied, a Non-Competitive Award Justification (NCAJ) is required. The NCAJ must be in writing and is typically required when the value of the award is greater than \$3,000.

The following categories may justify a non-competitive award:

- Customer-directed (in writing)
- Engineering-directed
- Propriety item or process
- Only qualified/approved source
- Economically justified
 - Cost of alternate sourcing
 - Cost of delivery delays
 - Cost of geographic factors

Other justifiable reasons:

- Unique concept or capability
- Follow-on development or production
- Technical compatibility
- Maintenance of R&D capability
- Multiple or dual source
- Regulated utility
- Standardization
- Teaming Agreement

The NCAJ must explain **why** one of the above categories is applicable.

When performing price analysis on non-competitive procurements, the B/SCA must place additional emphasis on documenting and negotiating the price.

2.0 PRICE ANALYSIS TECHNIQUES

In FAR Part 15.404, there are only 7 price analysis techniques. They are:

2.1 Adequate Price Competition

A price is based on adequate price competition if:

- Two or more responsible offerors respond to the solicitation
- The proposals are responsive to the requirements of the solicitation
- The offeror's compete independently for the award and the award is made to the offeror whose proposal represents the "Best Value" where price is a substantial factor in source selection

NOTE: The FAR allows a price to be based on adequate price competition when only 1 offeror responds to a solicitation in certain situations **where competition was expected**. However, most contractors require at least 3 responses in any situation.

Adequate price competition means price competition exists and the following conditions are met:

- The solicitation did not unreasonably restrict competition
- The low bidder does not have an unfair advantage over the competition
- The lowest offered price is not determined to be unreasonable

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Adequate price competition also requires no findings that the price is unreasonable. In other words, what looks like adequate price competition may not be. The competition may be flawed and may not result in a price that is fair and reasonable. The following factors should be considered:

- Depth of competition
- Responsiveness
- Independence
- Best value

2.1.1 Price Competition

A. Depth of Competition

To achieve effective price competition, the B/SCA must solicit a reasonable number of sources. The number solicited depends on the extent of competition that exists in that particular marketplace, as well as other factors such as the value of the procurement and urgency of need. As a guideline, a minimum of 3 sources should be solicited for each procurement. When feasible, it is recommended that the B/SCA solicit 5 or more sources of supply/services.

B. Responsiveness

The B/SCA, working with a technical representative as required, must ensure that the proposals are responsive to the requirements of the solicitation. The solicitation usually contains the following types of requirements:

- Proposal due date
- Specifications and drawings
- Terms and conditions
- Statement of Work (SOW)
- Representations and Certifications
- Product assurance provisions
- Software development provisions
- Delivery requirements

Failure to comply with any of these types of requirements can render a proposal non-responsive. Suppliers submitting non-responsive proposals may be:

- Disqualified from further consideration
- Provided the opportunity to revise their offers
- Declared unresponsive by the B/SCA

Missing solicitation information may be obtained at a later date if not significant.

C. Independence

In most circumstances, it is assumed that offerors compete independently for the contract. However, if the B/SCA has knowledge of collusion among offerors, the competition will not be effective. Collusion includes bid padding, courtesy bids, high-low schemes, and rotation agreements. If any of these conditions are present, the B/SCA must notify management. Management will take one of the following actions:

- Disqualify all bidders
- Re-compete the requirement to new sources
- Treat the procurement as non-competitive

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D. Best Value

Adequate price competition requires the award to be made to the offeror whose proposal represents the best value. Best value means the expected outcome of an acquisition that provides the greatest overall benefit to the B/SCA. Therefore, price and other factors may be considered in determining the best value. Other factors are those that contribute to the total cost to the contractor. These factors should be identified in the proposal phase of the procurement. Examples of other factors include:

- Past performance
- Freight and transportation
- Engineering liaison
- Travel expenses
- Qualification costs
- Customer furnished equipment
- Terms and Conditions (payment, warranty, etc.)
- Delivery schedule

The B/SCA may, when appropriate, add the estimated costs associated with these factors to the prices proposed by the offeror. All offerors must be evaluated on the same factors to ensure fairness. The evaluated costs, however, may vary depending on the location, experience, and management of the supplier. The offeror with the lowest total costs to the contractor is the best value. The award is then considered to be based on adequate price competition.

NOTE: ADEQUATE PRICE COMPETITION DOES NOT ALWAYS REQUIRE THE AWARD TO BE MADE TO THE LOW BIDDER. BEST VALUE TECHNIQUES CAN BE USED TO ANALYZE AND NEGOTIATE THE PRICE.

The following example illustrates an award based on best value, price and other factors considered.

Example: Best Value

ACME requires a widget for the Star Wars program. Two responsible offerors responded to the ACME solicitation. Both proposals are responsive to the requirements of the solicitation. They competed independently for the contract. The proposals are summarized as follows:

- ABC Company (Los Angeles, CA): \$19,000
- XYZ Company (Reston, VA): \$18,000

The B/SCA recognizes the following circumstances:

A Los Angeles engineer will be required to visit whichever supplier is selected to monitor technical development and assure delivery. The engineer's rate is \$100 per hour. The B/SCA evaluates the total cost to the contractor as follows:

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COST ELEMENT	ABC	XYZ
Airfare (round trip)	\$0	\$700
Car rental (2 days)	\$0	\$70
Per diem (2 days)	\$0	\$220
Travel time (8 hours)	\$0	\$800
Supplier meetings (8 hours)	\$800	\$800
SUBTOTAL	\$800	\$2,590
Bid Price	\$19,000	\$18,000
TOTAL COST	\$19,800	\$20,590

Based on the above, ABC Company is the best value.

2.1.2 Adequate Price Competition

For price competition to be considered adequate, 3 additional conditions must be met:

A. Unrestricted Competition

First, the solicitation cannot unreasonably restrict competition. The B/SCA should not deny a known and qualified source the opportunity to compete unless a logical reason exists. Examples of logical reasons to exclude known sources are:

- Bankruptcy
- Unacceptable quality ratings
- Late delivery experience
- Attainment of small business goals
- A sufficient number of sources already exists

The B/SCA must ensure that the SOW or specification does not unreasonably restrict competition. Name brands and supplier part numbers should be used only when necessary. Product specifications should be written to be broadly understood. The SOW should not reference documents specific to only 1 supplier.

B. Competitive Range

The second condition is that the lower bidder must not have an unfair advantage over the competition. This condition is assumed to be satisfied when the bids are within the competitive range.

DEFINITION: "COMPETITIVE RANGE" INCLUDES ALL PROPOSALS THAT HAVE A REASONABLE CHANCE OF BEING SELECTED FOR AWARD, ON THE BASIS OF COST, PRICE, AND OTHER FACTORS

A common guideline in establishing the competitive range is a 25% margin between the low bidder and the next low bidder. The B/SCA's determination also depends on the item being purchased and the number of responsive bids. A bid margin of greater than 25% may indicate:

- An unfair advantage exists
- A "buy-in" situation
- Poor source selection
- Bid rigging or collusion
- A misunderstanding of requirements
- A mistake in pricing

If any of these situations exist, the competition is not adequate, and the B/SCA must use another price analysis technique to analyze and negotiate the price. For example:

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ASSUME 10 UNITS	SUPPLIER A	SUPPLIER B
Unit Price	\$2,800	\$2,700
Non-Recurring	\$0	\$10,000
TOTAL PRICE	\$28,000	\$37,000

This example reflects a 32% margin between the low bidder and next low bidder. The absence of non-recurring charges indicates that Supplier A may have an unfair advantage over Supplier B. If, after evaluation, the B/SCA feels that adequate competition exists despite the difference in the offers, the procurement file should be documented to show conclusively why adequate competition exists. This documentation will attempt to show that there is no unfair advantage, buy-in, or bid rigging. In addition, it should demonstrate that the sources have similar facilities, equipment, and tooling. There may be justifiable reasons for a 25% or greater margin under adequate price competition. These include:

- Lower fully-burdened rates
- More efficient production
- Highly skilled labor force
- Shrewd, aggressive management
- Excess capacity
- Below cost bid

If any of these situations exists, the competition is adequate and the B/SCA may rely on the low bid as fair and reasonable.

The B/SCA must exercise caution in taking this approach when the margin is greater than 50%. An erroneous determination cannot be corrected after-the-fact and can lead to public law violations (TINA) if the amount of the award is over \$700,000.

The B/SCA should investigate why the margin exists. If there has been a misunderstanding or a mistake, a request for revised proposal should be solicited. During preparation of the request for revised proposal, the B/SCA should provide as much information as possible to the offerors to assure that each understands the requirement. It is important to provide the same information to ALL offerors. The B/SCA should never discuss a supplier's bid with its competitors.

If, after discussions and receipt of a revised proposal, a margin greater than 25% still exists between the low bidder and the next low bidder, the B/SCA should resort to another price analysis technique to demonstrate price reasonableness.

A Best and Final Offer (BAFO) or Final Proposal Revision (FPR) should not be solicited unless the requirements have changed enough to invalidate the bids obtained in the first round proposals.

C. Price Reasonableness

The third condition of adequate price competition is that the low bid must be reasonable. If the B/SCA has reason to believe the low bid is not reasonable, adequate price competition does not exist. Another price analysis technique must be used to analyze the proposed price.

The secondary analysis may show that the low bid is fair and reasonable despite not meeting all the conditions of adequate price competition. This secondary analysis may also show a need to negotiate the low bid. In this case, both techniques must be documented as well as any negotiations that take place.

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Normally, if the B/SCA negotiates with **one** supplier, he/she must negotiate with **all** suppliers in the competitive range. Competitive negotiations can provide the B/SCA with a more detailed understanding of the proposals. Selective negotiations impart an unfair advantage to the supplier selected for negotiations. However, if the low bidder is already selected for award, negotiations do not provide any advantage in the selection process.

Cases in which the low bid should be negotiated include:

- An unfair advantage exists
- Significantly lower independent estimates
- Significantly lower historical prices
- Proposed profit is too high
- Known lower actual costs

2.1.3 Based On Adequate Price Competition

Even when not the direct result of price competition, a price can be “based on” adequate price competition. The proposed price must be clearly reasonable in comparison with:

- Current or recent prices
- For the same or similar item
- Adjusted for changes in economics, quantities, or terms and conditions
- Prices that resulted from adequate price competition

This technique has been expanded to include changes in market conditions. Use this technique in combination with Inflation Adjustment (IA) and Learning Curve Analysis (LCA) (Section 3.0).

Situations where using this technique may be advisable include:

- Dual-source awards to the second lowest bidder
- Follow-on contracts where the follow-on work was completed
- Procurements under \$30,000
- Negotiation of option prices or the exercise of options

2.1.4 Supplier Rating System

Adequate price competition requires award based on best value. Another method of determining best value is to incorporate a supplier rating system. A supplier rating system usually rates several aspects of the procurement based on historical data. A detailed system may rate:

- Quality of products or services delivered
- On-time delivery performance

Various departments knowledgeable about the supplier’s products or services evaluate these aspects. Ratings should be assigned by commodity or type or service rather than by a supplier. The information must be kept current and used on a consistent basis.

Most supplier rating systems assign a numerical factor to each item/part number purchased or for each supplier rated. This factor can then be used in the source selection process. The factor can be applied to the price proposed by the supplier to calculate an evaluated price. The evaluated price can then be used to determine the best value:

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SUPPLIER	BID PRICE	QUALITY RATING	EVALUATED PRICE
A	\$31,000	1.02	\$31,620
B	\$30,000	1.07	\$32,100
C	\$29,000	1.11	\$32,190

In the above example, Supplier C submits the lowest bid, but Supplier A is the lowest evaluated bidder and represents the best value.

Supplier rating systems are well suited for high volume manufacturing environments. They do not lend themselves to state-of-the-art research and development work. An extensive database of information is required to be maintained on each product purchased. If a new product or service is proposed, it cannot be evaluated properly because there is no data on file. This may give new suppliers an unfair advantage, and would not result in adequate price competition.

2.1.5 Proposal Evaluation

Another method of determining the best value is proposal evaluation. This method incorporates evaluation criteria presented in the solicitation. The proposal is then evaluated in accordance with these criteria. The result is an award based on adequate price competition.

This method should not be used unless the evaluation criteria are established in advance and included in the solicitation. These criteria must include price as a significant factor. A significant factor is one that is weighted at least equal to or preferably greater to than any other factor. The relative weight of the various criteria should also be specified in the solicitation. The criteria should be tailored to each procurement and include only those factors that will have an impact on the source selection decision.

Solicitation: Include instructions that proposals will be evaluated on the following basis:

EVALUATION CRITERIA	RELATIVE WEIGHT
Price	40%
Quality	30%
Past Performance	30%

The subcontract management team conducts proposal evaluation. The goal of proposal evaluation is to select the proposal that is in the best interest of the company. Each proposal must be evaluated on the factors contained in the solicitation. The B/SCA will perform the cost or price evaluation. The principal investigator/engineer should perform the technical evaluation. All evaluations should be documented in writing and signed and dated by the evaluators. The evaluations will be summed to yield a total evaluated score for each offeror.

Proposal Evaluation: The subcontract management team performed the following proposal evaluation:

EVALUATION CRITERIA	WEIGHT	VALUE	POINTS
Price	40%	80	32
Quality	30%	60	18
Past Performance	30%	70	21
TOTAL	100%		71

Award will be made based on best value, price and other factors considered.

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If all other conditions of adequate price competition exist, no further documentation is necessary. When evaluation criteria are used, award must be made to the lowest evaluated offeror. Therefore, it is important to establish the proper criteria and score the evaluations appropriately. Under this method, the lowest evaluated offeror may not be the supplier with the lowest proposed price.

NOTE: EVALUATION CRITERIA MUST BE INCLUDED IN THE SOLICITATION AND ALL PROPOSALS MUST BE EVALUATED IN ACCORDANCE WITH THESE CRITERIA

2.2 Catalog or Market Price

Catalog or market prices (including GSA FSS) include published price lists and market prices of commercial items, supported by a Supplier Commercial Sales Certification that states that the supplier has actually sold the contemplated goods and/or services in the commercial marketplace at quantities and prices similar to those proposed to the contractor for the particular requirement.

Definitions

The Commercial Item definition in FAR Subpart 2.101 has been expanded. It includes:

- Items that have been “offered” for sale, but not actually sold
- Items sold, but not in substantial quantities
- Items that have “evolved” from or “modifications” of commercial items
- Many services not previously considered commercial items

Commercial Items: Supplies or services regularly provided to the general public in the course of normal business operations.

Substantial Quantities: Quantities sufficient to constitute a commercial market. Items must be in production. Nominal quantities, such as models, samples, prototypes, or experimental units are not substantial.

General Public: A significant number of customers other than the Government. The item involved must not be for Government end use.

Supplier Commercial Sales Certification: A written, signed certification provided to the contractor by a supplier certifying that the supplier has actually sold the contemplated goods and/or services in the commercial, non-Government marketplace at quantities and prices similar to (i.e., the same or higher than) those proposed to the contractor for the particular requirement.

2.2.1 Catalog Prices

A. Application

Includes items that are published in a catalog, price list, Internet site, GSA FSS, or other verifiable and established record. This record must satisfy 4 requirements:

- Must be regularly maintained
- Must state current or last sales price
- Must be published or otherwise available for customer inspection
NOTE: Internal price lists are acceptable if the B/SCA has access to them (i.e., Internet sites, even password-protected by the supplier)
- Must be supported by a Supplier Commercial Sales Certification. **If the supplier cannot provide a commercial sales certification, another price analysis method must be used.**

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When these requirements are satisfied, the catalog price is determined to be fair and reasonable. It is assumed that a competitive market place exists, and the forces of supply and demand have determined the price. If these requirements are not satisfied, it is not an established catalog price - another price analysis technique must be used to analyze and negotiate the price.

The B/SCA shall ensure compliance by taking the following actions:

- The catalog or price list must be dated or state the “as of” date in the file
- Obtain a copy of the catalog page or identify it by name, date, and page number
- The date of the catalog must be current or confirmed that it is current
- Obtain from the supplier a completed, signed commercial sales certification

B. Verification

The B/SCA will verify that the contemplated goods and/or services meet the Commercial Item definition in FAR 2.101 by completing a Commercial Item Determination before placing the order. The Commercial Item Determination must be supported by:

- Copy of the applicable, dated catalog page(s) or price list(s)
- Signed Supplier Commercial Sales Certification. **If the supplier cannot provide a commercial sales certification, another price analysis method must be used.**
- Other information identified in the Commercial Item Determination

If the procurement is valued at greater than the TINA threshold (\$700,000) and is based on catalog/price list or other verifiable records, the supplier may be able to claim exemption from certified cost or pricing data. This exemption is claimed in the appropriate Representations and Certifications package that must be completed by the supplier before placing the order.

C. Negotiation

Since established commercial catalog prices supported by a completed, signed Supplier Commercial Sales Certification are considered fair and reasonable, discounts from established catalog prices are considered fair and reasonable. However, B/SCAs should always attempt to negotiate discounts from catalog prices for the following reasons:

TYPICAL LIST PRICE IS BASED ON:	TYPICAL INDUSTRIAL PURCHASE FEATURES:
Retail price	Wholesale price
Price is for ONE unit	More than one unit
Item is for end-user	Item is for resale
One-time sale	Repeat buys
One item only	Numerous items

The table above presents circumstances that warrant negotiating from established catalog prices. Even after negotiation, a B/SCA may still be uncertain as to whether he/she has obtained the best possible pricing. In these cases, he/she may obtain a price warranty or Most Favored Customer (MFC) clause, similar to this example:

PRICE WARRANTY: OFFEROR REPRESENTS AND WARRANTS THAT THE PROPOSED PRICES ARE AS LOW OR LOWER THAN THOSE CURRENTLY BEING QUOTED TO COMMERCIAL OR INDUSTRIAL USERS OR THE GOVERNMENT FOR THE SAME PRODUCTS IN LIKE QUANTITIES UNDER SIMILAR CIRCUMSTANCES

Such warranties should not be relied upon as substitutes for price analyses.

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2.2.2 Established Market Price

A. Application

Market prices are published prices that are established in the course of ordinary and usual trade between B/SCAs and suppliers free to bargain. Market prices must satisfy 3 requirements:

- Must be substantiated with supporting data
- Must be current
- From sources independent of the manufacturer or supplier
- Must be supported by a Supplier Commercial Sales Certification. **If the supplier cannot provide a commercial sales certification, another price analysis method must be used.**

When these requirements are satisfied, the market price is determined to be fair and reasonable. It is assumed that B/SCAs and suppliers free to bargain have determined the price. If these requirements are not satisfied, it is not an established market price and another price analysis technique must be used to analyze and negotiate the price.

The B/SCA should ensure compliance by taking the following actions:

- The market price must be substantiated with written documentation showing the market price
- The documentation must be from sources independent of the manufacturer or supplier
- The documentation must show current or recent prices
- Obtain from the supplier a completed, signed commercial sales certification

B. Verification

The B/SCA will verify that the contemplated goods and/or services meet the Commercial Item definition in FAR Subpart 2.101 by completing a Commercial Item Determination before placing the order. The Commercial Item Determination must be supported by:

- Copy of the newspaper, magazine, or trade journal (advertisements are unacceptable for establishing a market price for commercial items)
- Signed Supplier Commercial Sales Certification. **If the supplier cannot provide a commercial sales certification, another price analysis method must be used.**
- Other information identified in the Commercial Item Determination

If the procurement is valued at greater than the TINA threshold and is based on catalog/price list or other verifiable records, the supplier may be able to claim exemption from certified cost or pricing data. This exemption is claimed, as applicable, in the appropriate Representations and Certifications package that must be completed by the supplier before placing the order.

C. Negotiation

Established market prices are rarely subject to negotiation. If appropriate, the B/SCA may incorporate the same techniques in Section 2.2.1 above.

2.2.3 “Based On” Catalog or Market Price

A price is based on catalog or market price only if the item is sufficiently similar to a catalog or market priced item such that any difference in price can be justified by price analysis alone. The similar item must also be a commercial item per FAR Subpart 2.101, as supported by a Commercial Item Determination and Supplier Commercial Sales Certification.

The requirements for application and verification in Sections 2.2.1 and 2.2.2 above must first be satisfied to use this technique. In addition, the differences between the similar item and the item purchased

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must be identified and analyzed for price reasonableness. Any one of the 7 techniques in this guidebook may be used to perform the price analysis and negotiate the price.

NOTE: ITEMS PURCHASED FROM A GSA CONTRACT PRICING SCHEDULE ARE CONSIDERED TO BE BASED ON CATALOG OR MARKET PRICE. IN ADDITION, THE VERIFICATION REQUIREMENT IS ASSUMED TO HAVE BEEN SATISFIED BY GSA.

Example: Based On Catalog or Market Price

The price quoted by the supplier for the similar items is \$2,900 each. The price listed for the item in the catalog is only \$2,500 each.

Step 1: Identify the Differences in the Two Parts

A review of the drawings and/or specifications shows that the similar part requires an additional connector.

Step 2: Prepare an Independent Estimate of the Cost of the Connector

Material	\$200
Labor	1 hour
Rates	\$100
ESTIMATED TOTAL	\$300
Catalog Price	\$2,500
RECOMMENDED PRICE	\$2,800

Step 3: Conduct Negotiations

Supplier quoted	\$2,900
B/SCA offered	\$2,800
Negotiated	\$2,850

Conclusion

Price is considered fair and reasonable based on established catalog price of a similar item, an independent estimate of the differences, and negotiation.

2.3 Historical Prices

A historical price for the same product or service can be used for future price analysis if the following 3 requirements are satisfied:

- It was a validated price
- It is adjusted for inflation
- It is adjusted for quantity

This price analysis technique should be used to develop a recommended price from which the B/SCA can negotiate a fair and reasonable price.

2.3.1 Validation

Historical prices must have been previously determined to be fair and reasonable. This determination must have been based on either adequate price competition or other price analysis technique. This past determination must be documented in the current procurement file.

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Therefore, historical prices are usually those that have actually been **paid** by the contractor in the past. Quotations and proposals are unacceptable as historical prices. Only purchase orders and subcontracts can be used as a basis for price analysis. The price analysis of the previous procurement must be re-stated in the current price analysis.

The best way to satisfy the validation requirement is to include a copy of the previous price analysis in the current procurement file. It should be clearly marked “Previous Price Analysis” or similar verbiage to avoid confusion.

2.3.2 Quantity

The quantity of items procured usually has a significant impact on the price per unit. Historical prices are not comparable to current prices unless the quantities are similar. Use of this technique, therefore, requires comparable quantities.

If the quantities are not comparable, the B/SCA should apply LCA to adjust the price. This technique is discussed in Section 2.7 of this guide.

Definition

Comparable Quantities: Various quantities are considered comparable if no one quantity is less than **half** or greater than **double** the other quantity.

Example: Comparable Quantities

COMPARABLE QUANTITY		NON-COMPARABLE QUANTITY	
OLD	NEW	OLD	NEW
10	15	10	25
100	75	100	25

Non-comparable quantities must be analyzed on a learning curve basis. This is necessary to measure efficiencies, economies of scale, quantity price breaks, amortization of non-recurring costs, etc.

2.3.3 Inflation Adjustment (IA)

Inflation has an increasingly significant impact on the price of an item over time. Historical prices may not be comparable to current prices unless they are adjusted for inflation. IAs require the use of price indices.

Recent Prices: Historical prices are considered recent if they have been paid within the last 12 months.

If historical prices are not recent, IA should be applied.

Example: Historical Prices

ITEM	QUANTITY	PRICE/UNIT
Proposed by Supplier	100	\$267
Previous Purchase	85	\$251

Validate Previous Price

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The previous price of \$251 each was determined to be fair and reasonable for Purchase Order DEF-123456. This purchase was based on adequate price competition (attach previous price analysis).

Compare Quantities

The above quantities are considered comparable, as the new quantity is less than double the previous quantity. Therefore, LCA is not necessary.

Adjust for Inflation

The wholesale price index is currently 1.184. The index for the previous purchase was 1.163. The amount of inflation is $1.184/1.163 = 1.8\%$.

$$\$251 \text{ (previous price)} * 1.8\% = \$255.52 \text{ (adjusted price)}$$

Negotiations

Company offered \$255.52 each. The supplier counter-offered a price of \$260 each. The price of \$260 is considered fair and reasonable as the result of analysis and negotiation.

2.4 Similar Products

An historical price of a similar product can be used for price analysis if 4 requirements are satisfied:

- It was a validated price
- It is adjusted for quantity
- It is adjusted for inflation
- Identify and analyze differences

This price analysis technique should also be used to develop a recommended price from which the B/SCA can negotiate a fair and reasonable price.

2.4.1 Validation, Quantity, and Inflation

Validation is addressed in Section 2.3.1 of this guidebook. Quantity and Inflation are addressed in Sections 2.3.2 and 2.3.3, respectively, of this guidebook.

The same requirements apply to similar products. The fourth requirement is to reconcile the differences between the 2 products or services.

2.4.2 Reconciliation

Similar products must be sufficiently similar to the current product such that the differences can be identified and analyzed for price reasonableness. Identification of differences may require the assistance of a technical representative. The following areas should be reviewed:

- Product characteristics
- Engineering drawings
- Specifications
- Production processes
- Military standards
- Bill of Materials
- Tooling requirements
- Non-recurring set-up costs
- Geographic location
- Terms and conditions

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Once the differences are identified, they must be analyzed. The analysis must incorporate one of the 7 techniques in this guidebook. The most common approach taken is an independent estimate (see Section 2.5). The results of this analysis may be expressed as a complexity factor to be applied to the cost of the similar item.

The analysis of the differences must be in writing. The analysis must quantify the difference and show that dollar amount to be fair and reasonable. If the dollar amount of the differences is greater than \$700,000, Cost or Pricing Data may be required.

2.5 Independent Estimates

Independent estimates developed by the company can also be used to perform price analysis. The estimate calculates what it “should cost” the supplier to produce the item or provide a service.

An independent estimate analyzes the **major** cost elements. It is similar to a cost analysis, which analyzes **all** cost elements. The major cost elements are:

- Material and Other Direct Costs (ODCs)
- Labor Hours
- Labor Rates

An independent estimate yields a recommended price that, if lower than proposed, forms the basis for negotiation. Independent estimates must be documented in writing and signed and dated by the estimator.

2.5.1 Material

This category includes parts, subcontracts, ODCs, travel, etc. If not significant (i.e., <\$3,000), the proposed amount should be accepted and used in the independent estimate. If significant, the B/SCA must analyze the material costs using techniques in this guidebook. For high-value items, substantiation should be requested from the supplier. ODCs such as travel costs should be analyzed in accordance with the Federal Travel Regulations (FTR).

2.5.2 Labor Hours

Labor hours must be analyzed in the independent estimate. Typically, the technical representative performs this analysis. The B/SCA should provide the technical representative with as much information as practical. This information includes:

- Detailed descriptions or a Statement of Work
- Product specifications
- The proposed labor hours
- The proposed labor categories
- The basis of the proposed hours

The supplier can provide some of the above information. If unavailable from the supplier, the B/SCA can use Cost Estimating Relationships (CERs) (see Section 2.6.2) to estimate labor hours.

The technical evaluation should address the number of hours necessary, the appropriateness of the labor categories, and the basis or methodology employed to arrive at the stated conclusions. The technical evaluation should be documented in writing, signed and dated by the technical representative, and placed in the procurement file. If negotiations are necessary, the estimator should participate and either defend or revise his/her estimate.

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2.5.3 Labor Rates

When performing an independent estimate, the B/SCA should apply rates typical of the industry. If the supplier's rates are known and can be shown to be typical of the industry, they should be applied as proposed. If the supplier's rates are not known or are not typical of the industry, the B/SCA must estimate the appropriate rates.

CAUTION: DO NOT USE YOUR OWN COMPANY'S RATES WHEN PERFORMING AN INDEPENDENT ESTIMATE. YOUR COMPANY RATES MAY NOT BE TYPICAL OF THE INDUSTRY, AND REFLECT OUR COST, NOT THE SUPPLIER'S COST, TO PRODUCE THE ITEM OR PROVIDE THE SERVICE.

Rates can be determined to be typical of the industry in the following manner:

Direct Labor Rates: Should be within the middle range or near the mid-point of an established salary survey. If the proposed direct labor rates are not typical, or are not known, the mid-point or average salary from the survey should be used in the analysis.

If above-average labor rates are used, obtain resumes of the proposed individuals.

Note: It is important to use the average rate vs. the range of rates to establish a recommended position as a basis for negotiation.

Indirect Rates: Should be within the typical range of the industry. If the proposed indirect rates are not typical or are not known, the average loading factor from the survey will be used in the analysis. The load factors should include ALL indirect expenses and profit.

Profit: The B/SCA should request the supplier to disclose the amount of profit included in the proposed rates. If excessive, negotiate a reasonable amount based on risk/return. If unknown, use the industry average included in the load factors.

Example: Independent Estimate

A subcontractor proposes \$70,000 to provide technical services to Company. The following cost breakdown is provided:

ITEM	QUANTITY/PRICE
Engineering Labor	1,000 hours
Labor Rate	\$60/hour
SUBTOTAL	\$60,000
Travel Cost	\$10,000
TOTAL	\$70,000

Step 1: Estimate Labor

A technical evaluation by Mr. Y recommends 6 person months of effort by a Senior Electronics Engineer (supported by a written technical evaluation). The B/SCA equates this to 960 hours based on 160 hours per person month.

Step 2: Check Rates

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The mid-point salary for an Electronics Engineer in San Diego is \$30 per hour (supported by the printed salary survey). The average loading factor for engineering firms is 2.0 (supported by printed reference load factors).

The recommended rate is, therefore, \$60 per hour.

Step 3: Estimate Travel

The B/SCA estimates 6 trips to San Diego for 1 person. Airfare will be \$700 per trip or \$4,200. Car rental will be \$50 per day or \$300. Hotel and meals will be \$150 per day or \$900. Total travel costs should be \$5,400 (estimated costs are per Company Travel Department or market research).

Summary: Cost Element

SUMMARY COST ELEMENT	PROPOSED	ESTIMATED
Travel Dollars	\$10,000	\$5,400
Labor Hours	1,000	960
Labor Rate	\$60	\$60
Labor Total	\$60,000	\$57,600
TOTAL	\$70,000	\$63,000

Step 4: Negotiations

B/SCA offers \$63,000 based on the independent estimate. The supplier agrees to reduce travel by \$5,000 and counter-offers with \$65,000. The B/SCA accepts the \$65,000 as fair and reasonable based on analysis and negotiation.

2.6 Parametric Estimates

Parametric estimates are a valuable price analysis technique when based on current data. Parametrics include Rules-of-Thumb, Cost Estimating Relationships (CERs), and census data. Whenever parametric analysis is performed, the source of the parameters incorporated must be documented.

2.6.1 Rules-of-Thumb

This type of parameter may be available for common commercial commodities. They constitute standard industry practice and can be documented from a variety of sources. Examples include:

- Dollars per pound of raw material
- Miles per gallon of gasoline
- Cost per square foot for construction
- Hours per person-month for labor
- Cents per page for reproduction

Such Rules-of-Thumb are general in nature and may only provide a Rough Order of Magnitude (ROM) estimate. Nevertheless, they can form a basis for analysis and negotiation of a proposed price.

2.6.2 Cost Estimating Relationships (CERs)

CERs are parameters that are much more specific to particular items or services. They are usually based on empirical data unique to the procurement. Examples include:

- Hours/drawing for drafting services
- Hours/line of programming code
- Scrap as a percentage of material costs
- Minutes/square inch of circuit board

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- Ratio of inspection to assembly hours

The CER can be different for each application. It may depend on the size of the drawings, the complexity of the code, the type of material, etc. When using a CER, it is important to document the source by name, date, contract, accounting record, etc.

2.6.3 Census Data

Another good source of parametric relationships is the census of manufacturers published by the U.S. Department of Commerce (http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-ds_name=AM0931GS101). The census summarizes data on various cost elements by North America Industry Classification System (NAICS) code. Parameters include:

- Production worker wages
- Value added by manufacturer
- Cost of materials
- Value of shipments

This data can be used to develop CERs by industry. These relationships include:

- Ratio of labor to material
- Ratio of direct or indirect costs
- $(\text{Labor} + \text{material})/\text{total value} \times 100$
- $\text{Indirect costs}/\text{direct labor} \times 100$

These relationships can be used to estimate the probable cost breakdown of a supplier. This is valuable when the supplier will not supply a cost breakdown. Alternatively, it can be used to evaluate cost reasonableness of a proposed cost breakdown. These relationships also aid in the evaluation of specific cost elements. If 1 cost element can be shown to be reasonable, all other cost elements can be applied as ratios to the base element, yielding a recommended price that forms the basis for negotiation.

Example: 2009 Census Data

NAICS	INDUSTRY	WAGES	INDIRECT	VALUE ADDED	MATERIAL	ORDER VALUE
334412	PCBs	\$1,002,292	\$258,080	\$2,101,606	\$1,639,035	\$3,749,722

- Ratio of material to labor: 1.63
- Ratio of direct to indirect: 3.88
- Overhead as a percent of labor: 25.7%
- Labor as a percent of total: 26.7%
- Material as a percent of total: 43.7%

2.7 Pricing Information

Analysis of pricing information provided by the supplier is another price analysis technique. Pricing information includes:

- Sales history of the item or similar item to other customers
- Proposal history of the item or similar item to other customers
- Cost information “other than Cost or Pricing Data” provided by the supplier

2.7.1 Sales History

Sales history provided by the supplier can be used for price analysis. Sales history should include the following information:

- The part number or description of services

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- The date of the sale
- The quantity of units sold
- The unit price or total sales revenue

The customer name would be helpful, but may be confidential to the supplier. This sales history information can be used to analyze the price proposed by the supplier.

Note: If the Government is the customer, procurement history can be obtained through the Freedom of Information Act (FOIA).

2.7.3 Cost Information

Cost information “other than Cost or Pricing Data” should be requested only if the other price analysis techniques fail to yield a price that is fair and reasonable. This cost information should be limited to major cost elements such as:

- Material Cost
- Labor Hours
- Wrap Rates

The B/SCA should then perform an independent estimate (see Section 2.5) to analyze the cost information provided by the supplier.

Often, partial cost information supplied by the supplier can be useful in price analysis. The supplier may disclose that a majority of the cost is material, which is not within its control. Alternatively, material costs have increased by a specific percentage over time. If labor-intensive, labor costs may have increased significantly compared to material costs. Indirect rates may have increased due to economic conditions or work force reductions.

The B/SCA should not totally rely on this information in the price analysis. It is important to document this type of information when provided by the supplier.

3.0 PRICE ANALYSIS TOOLS

Price analysis tools are intended to be used in conjunction with one of the price analysis techniques addressed in this guide. These price analysis tools include IA and LCA.

3.1 Inflation Adjustment (IA)

IA is required when historical prices are not recent. “Recent” means procured within the last 12 months. IA adjustments require the use of price indices. Price indices are published by the U.S. Department of Labor, Bureau of Labor Statistics.

Producer prices contain material price indices. Average hourly earnings contain labor wage indices. The indices are published by NAICS classification. The B/SCA should use the index for the NAICS code appropriate for the product or services being procured. Some items, like computers, have decreased in price over item, exhibiting “deflation” rather than “inflation”.

Other commonly-used indices are published by DRI McGraw/Hill on a quarterly basis. This publication includes a 10-year forecast of price increases. The amount of inflation is measured by comparing the current index to the forecasted index appropriate for the historical price. The current index is divided by the old index to yield the inflation rate.

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Inflation adjustments for more than 5 years may not accurately reflect changes in economic conditions for a particular product or services. Technology changes cannot be forecasted with much accuracy beyond a 5 year period of time.

Example: IA

- Currently proposed by supplier: 100 units at \$280 per unit
- Prior purchase by the B/SCA: 85 units at \$251 per unit

Step 1: Validate Previous Price

The previous price of \$251 each was determined to be fair and reasonable in Purchase Order No. ABC-456789, dated 11/1/10. This purchase was based on adequate price competition (attach previous price analysis).

Step 2: Compare Quantities

The above quantities are considered comparable as the new quantity is less than double the previous quantity. Therefore, learning curves are not necessary.

Step 3: Adjust for Inflation

- The current wholesale price index for NAICS Code XYZ Aircraft Parts is currently 154.0
- The index for the previous purchase, dated 9/15/09, was 141.7
- The amount of inflation is $154.0/141.7 = 8.7\%$
- Previous price was \$251 plus 8.7% = \$272.84

Step 4: Negotiations

B/SCA offers \$273 each based on the price analysis. The supplier counter-offers with a price of \$275 each. The price of \$275 is considered fair and reasonable as the result of analysis and negotiation.

3.2 Learning Curve Analysis (LCA)

LCA is used in conjunction with another price analysis technique when quantities are not comparable. Other price analysis techniques that may require LCA include:

- Published price lists
- Historical prices
- Similar items
- Independent estimates

Comparable quantities were defined in Section 2.2. When quantities are double or less than half the previous quantity, LCA must be used.

The LCA measures the efficiencies realized when production quantities are increased. These efficiencies include:

- Direct labor learning
- Supervisory labor learning
- Manufacturing techniques
- Production processes improvement
- Tooling/equipment additions
- Management systems

There are two basic types of learning curves:

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- The Labor Learning Curve (LLC)
- The Material Discount Curve (MDC)

The LLC addresses the reduction in direct labor hours as a result of follow-on production. It takes into consideration all previous production experience. Calculations are based on the progression “down” the learning curve. Production lot midpoints must be calculated. Breaks in production and the production rate must be allowed for. This type of analysis is best suited for performing cost analysis of proposed direct labor hours.

The MDC addresses the price of an item in relation to the quantity purchased. It does not take into consideration previous production. Calculations are based on progression “down” the learning curve for large lots, and reversion back “up” the learning curve for small lots. Lot midpoints, production breaks, and production rate are not allowed for. This type of analysis is best suited for performing price analysis of proposed prices.

This guidebook addresses MDCs only.

The Golden Rule of LCA is essential to its application:

THE PRICE OR COST OF AN ITEM TENDS TO DECREASE BY A PREDICTABLE PERCENTAGE EACH TIME THE QUANTITY IS DOUBLED

This percentage decrease can be predicted when the learning curve slope is known. For example, if the slope is 90%, the price of the item will decrease by 10% each time the quantity is doubled. The following schedule shows this relationship:

90% MATERIAL DISCOUNT LEARNING CURVE	
QUANTITY	PRICE/UNIT
10	\$100
20	\$90
40	\$81
80	\$72.90
160	\$65.61

The learning curve slope for a given item can be determined from a variety of sources.

The **first** method is to refer to actual data for the item. If past prices and quantities are known, the learning curve slope can be calculated.

The **second** method is to request pricing for various quantities from the supplier in the solicitation. The quantities should reflect doubling so the learning curve slope can be easily calculated.

The **third** method is to consult established sources of industry data. NASA technical memorandum TMX-64968 contains the following guidelines:

INDUSTRY	TYPICAL SLOPE (%)
Aerospace	85
Shipbuilding	80-95
Complex machine tools	75-95
Repetitive electronics	90-95

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INDUSTRY	TYPICAL SLOPE (%)
Repetitive machining	90-95
Repetitive clerical	75-85
Repetitive welding	90
Construction operations	70-90
Raw materials	93-96
Purchased parts	85-88

The learning curve equation can be expressed as: $Y = AX^{-b}$ or $\text{Log}Y = \text{Log}A - b\text{Log}X$, where:

- Y = Price per unit of production
- X = Number of units
- A = Price of the first unit
- B = Geometric slope

LCA can be performed using various techniques:

- LOG/LOG graphs
- Learning curve tables
- Calculator routines
- Computer programs
- Computer graphics

LOG/LOG graphs are used to plot multiple price/quantity data points. The learning curve can be drawn as a straight line between these data points. The slope of the curve can be measured with a protractor. Prices for various quantities can be estimated by projecting up or down the curve.

Learning curve tables can be used to calculate the slope of the curve and prices associate with various quantities. The calculations are time-consuming, but much more accurate than “eyeballing” a graph.

Computer programs have been developed to perform LCA. These programs do not require cumbersome learning curve tables, are faster and easier to use, and offer greater accuracy than the other techniques. The computer printout facilitates documentation of the analysis. Computer graphics combine a learning curve program with a graphics program. The printout includes calculations and a LOG/LOG graph of the results.

4.0 DOCUMENTATION

The B/SCA is responsible for documenting the price analysis and showing that the proposed price is fair and reasonable, or the result of price analysis and negotiation.

4.1 Purchase Award Summary (PAS)

A PAS or similar documentation is required to document all price analyses over \$3,000. A written source justification is also required if the procurement is non-competitive. The source justification should also be categorized as one of the source selection categories in Section 1.5 of this guide.

The PAS must include a price analysis OR, when required for a Government procurement by FAR Clause 52.215-12, a cost analysis.

The price analysis must utilize one of the following techniques:

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ADEQUATE PRICE COMPETITION	INDEPENDENT ESTIMATE
Catalog or Market Price	Parametric Estimate
Historical Prices	Pricing Information
Similar Items	

A written price analysis and supporting documentation is mandatory. The PAS requires enough documentation to support adequate price competition or catalog price or market price. Other price analysis techniques typically require a separate price analysis memorandum. If the price analysis does not show the proposed price to be fair and reasonable, the B/SCA must negotiate a fair and reasonable price. If negotiations have been conducted, the PAS shall be annotated accordingly. A negotiation memorandum should be attached if the procurement is over \$700,000. If negotiations resulted in cost savings, the PAS should include the cost savings reported.

The participation of non-large businesses should be indicated on the PAS. If no non-large businesses have been solicited on a competitive procurement, an explanation is required.

4.1.1 Bid Summary

A bid summary or bid comparison table should be completed for all competitive procurements. **All suppliers solicited** must be summarized on the bid summary. If the supplier was classified as “no bid”, “non-responsive”, or “disqualified”, the bid summary should be so documented.

The bid summary will include unit prices for each line item requested. Non-recurring charges should be listed as separate line items. The B/SCA may make the award based on individual items, a group items, or the total quoted. The payment terms and FOB point should be documented to facilitate best value determination. The delivery and date of quote must be in compliance with the requirements of the solicitation.

The bid summary should be filed in the procurement file with the PAS. It may be hand-written or electronically generated. Each PAS, however, must be specifically tailored to each procurement.

4.2 Price Analysis Memorandum (PAM)

A PAM should be prepared by the B/SCA when appropriate. The following price analysis techniques typically require a PAM:

- Historical prices
- Similar items
- Independent estimates
- Parametric estimates

A PAM may also be prepared for complex procurements based on adequate price competition or catalog or market prices. The extent of detail in the PAM will depend of the nature of the procurement, the complexity of the item, and the dollar value. The purpose of the PAM is to clearly define a fair and reasonable price for the item or service. It should identify and quantify price differentials which should be resolved through negotiations. It must include:

- Price proposed
- Price recommended
- Basis for the recommended price

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The PAM should be type written, dated, and signed by the B/SCA. It should be referenced as an attachment to the PAS. The PAM will include all supporting documentation. The appropriate supporting documentation will depend on the price analysis technique employed. When documenting a price analysis, the B/SCA should:

- Identify the technique applied
- State technique requirements
- State how requirements were satisfied
- Reference supporting documentation

Typical supporting documentation is presented in the table below:

TECHNIQUE	SUPPORTING DOCUMENTATION
Adequate Price Competition	A completed PAS, including a bid summary or abstract of bids
Catalog or Market Price	Catalog, price list, market publication copies, or specific identification by name, date, page number copies and highlighted, supported by a Supplier Commercial Sales Certification that the supplier has actually sold the contemplated goods and/or services in the commercial, non-Government marketplace at quantities and prices similar to (i.e., the same or higher than) those proposed to Company for the particular requirement.
Historical Prices	A copy of the previous PAS and price analysis showing a validated price and adjusted for inflation and quantity
Similar Products	Same as above, plus a copy of the technical evaluation of the differences
Independent Estimates	A copy of the technical evaluation, salary survey, and subcontractor loading factors
Parametric Estimates	Identification of the source of the parameter or cost estimating relationships
Learning Curve Analysis	A copy of the log/log graph, math calculations, or computer printout results and/or graphics
Pricing Information	Sales history showing quantity, price, and date of sale to other customers

4.3 Negotiation Memorandum

When negotiations are conducted, a formal negotiation memorandum should be prepared for all procurements valued at \$150,000 and above. For Government procurements when Certified Cost or Pricing Data are applicable, a more detailed negotiation memorandum is required (see FAR Part 15).

The negotiation memorandum must address the following issues:

- **WHO** negotiated the procurement?
- **WHAT** proposal was negotiated?
- **WHEN** were negotiations conducted?
- **WHERE** did the negotiations take place?
- **WHY** was the negotiated amount determined to be fair and reasonable?

The negotiation memorandum should reference the PAM. The price analysis forms the baseline for the negotiation. The B/SCA may want to include other specialists in the negotiation, such as the technical representative or project manager.

The results of the negotiation must be documented. The conclusion should include a statement as to **why** the negotiated price is fair and reasonable.

REMEMBER: IF B/SCAs AND SUPPLIERS ARE FREE TO BARGAIN, THE RESULTING PRICE ANALYSIS AND NEGOTIATION IS ALWAYS A FAIR AND REASONABLE PRICE

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The negotiation memorandum should be type written, dated, and signed by the B/SCA. It shall be referenced as an attachment to the PAS and included in the procurement file.

5.0 CONCLUSION

The requirement for price analysis can only be satisfied by using 1 of the 7 techniques in this guidebook. The price analysis should result in a recommended price. The B/SCA should negotiate the recommended price. The results of the price analysis and negotiations will be a fair and reasonable price.

The analysis and negotiation must be well documented. The information should aid future B/SCAs in analysis and negotiation of follow-on procurements. Each procurement must withstand management review and audit by both internal and external auditors.