

AFIT/GCM/LSP/91S-7

AN ANALYSIS OF THE PRICE ANALYST'S ROLE IN THE SOURCE SELECTION PROCESS

THESIS

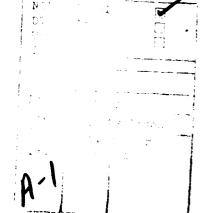
Rita Lindsey

AFIT/GCM/LSP/91S-7

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Presented to the Faculty of the School of Systems and Logistics of the Air Force Institute of Technology Air University In Partial Fulfillment of the Requirements for the Degree of Master of Science in Contracting Management

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September 1991

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Abstract

This research was conducted to determine if the price analyst's role in the source selection process results in the receipt of efficient contractor proposals and evaluation. The research was limited to the operational level of procurement. A literature review was performed on the evaluation factors used in the source selection process and the role of the price analyst. Incerviews were conducted with contracting officers and price analysts experienced in conducting source selections. The research revealed a gap exists between the role of the price analyst as described in the literature and the role described by the field. The price analyst's role in the source selection process is significant during the evaluation stage; however, limited in the stages prior to the evaluation. Due to the limited involvement, the price analyst's role does not result in the receipt of efficient contractor proposals and evaluations. Recommendations to enhance the price analyst's role are 1) improve the contracting community's awareness of the price analyst's role during the process; and 2) inspire contracting officers and price analysts to aggressively improve the process.

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AN ANALYSIS OF THE PRICE ANALYST'S ROLE IN THE SOURCE SELECTION PROCESS

I. Introduction

General Issue

Today's budget environment makes it crucial to find the most efficient manner to conduct government business. Government procurement is the process used to purchase goods and services. Within government procurement, source selection is a method used to evaluate a contractor's proposal based on evaluation factors prescribed in the request for proposal (RFP), and select the best contractor based on an evaluation. The evaluation is performed by a team familiar with the item being procured. The team is headed by a contracting officer and includes specialists that are needed to perform the evaluation. A price analyst is usually a member of the team and is responsible for evaluating the cost aspects of the contractor's proposal.

Contractors prepare their proposals in accordance with instructions for proposal preparation included in the RFP. Special attention is given to the evaluation factors in preparing their submission, since these are the factors upon which the award will be based. The evaluation factors and instructions for proposal preparation are critical parts of the RFP. Only factors that discriminate should be

used because the amount of contractor information submitted directly impacts the time to evaluate proposals and make an award.

Specific Problem

The specific problem is to determine if the price analyst's role, in development of evaluation factors and proposal preparation instructions, results in the receipt of efficient contractor proposals and evaluations.

Investigative Questions

In determining the answer to the specific problem, the following questions will be asked:

 What is the role of the price analyst in preparing the request for proposal?

2. What additional information could be provided to the contracting officer by the price analyst to ensure essential contractor data is received?

3. To what degree do the cost evaluation factors and the proposal preparation instructions discriminate between proposals?

4. Should changes be made to the price analyst's role in the source selection process?

Scope of the Research

Air Force procurement involves many types of purchases including research and development, major systems, support items for major systems, spare parts, supplies, services

and construction. This research is limited to the operational level of contracting which involves the procurement of supplies, services, and construction to support the daily operation of a base. However, some of the findings of this research may be applicable to other types of contracting. Additionally, due to resource constraints, this research is limited to US Air Force installations within the continental United States.

<u>Overview</u>

This chapter has introduced the research problem and identified the scope of the research. Chapter II presents a literature review of published information on evaluation factors used in the source selection process and the role of the price analyst. Chapter III explains the methodology used to conduct the research. Chapter IV presents the findings and analysis of the data acquired through the methodology. Chapter V presents the conclusions of the research and recommendations for further research.

II. Literature Review

Introduction

This chapter reviews the current literature on the source selection process. Since this research concerns the price analyst's role in the source selection process, the review focuses on the cost aspect of the source selection process. Source selection is defined as a method of selecting a contractor to perform under a contract (19:18). The procurement is structured so a source can be selected that is not necessarily the lowest offeror but can meet the government's minimum requirements (19:19). This chapter provides an overview of the source selection process followed by a discussion of the selection of evaluation factors and the evaluation process with an emphasis on the cost aspect.

Scope of the Research Topic

A current concern in government procurement is to reduce government costs. Reduction of the number of contract awards and streamlining the source-selection process can result in acquisition time savings (1:42). The source selection process can be streamlined by limiting the number of evaluation factors used. Limiting the evaluation factors can reduce costs by restricting the size of contractors proposals and thereby reducing the evaluation

time. The evaluation time can be further reduced by requesting only data that discriminates between contractors. This includes requesting detailed cost data only when it is necessary for determination of the best source.

This chapter is a review of the regulatory guidance for source selection and articles published in professional journals. Since this research is at the operational level, most of the acquisitions will be covered by Air Force Regulation 70-30 titled <u>Streamlined Source Selection</u> <u>Procedures</u>. Therefore, Air Force Regulation 70-15, titled <u>Formal Source Selection For Major Acquisitions</u>, which provides guidance for major systems and other major programs, is not included in this review. Although several factors may be used in the source selection process, since this research concerns the price analyst role in the source selection process, the focus of the review is on the cost factor.

<u>Organization</u>

An overview of the source selection process is provided first. The overview is followed by a discussion of the factor selection process and the final discussion concerns the evaluation process. The factor selection and evaluation discussions concentrate on aspects of the cost factor used in the source selection process.

Discussion of the Literature

<u>Overview of the Source Selection Process</u>. The purpose of source selection is outlined in Federal Acquisition Regulation (FAR) part 15.603.

Source selection procedures are designed to-(a) Maximize competition; (b) Minimize the complexity of the solicitation, evaluation, and the selection decision; (c) Ensure impartial and comprehensive evaluation of the offerors' proposals; and (d) Ensure selection of the source whose proposal has the highest degree of realism and whose performance is expected to best meet stated Government requirements. (15:16926)

Air Force Regulation 70-30 provides procedures for streamlined source selection. Streamlined source selection is to be used on competitive negotiated procurements that are not covered by Air Force Regulation 70-15. Air Force Regulation 70-15, titled <u>Formal Source Selection for Major</u> <u>Acquisitions</u>, applies to large dollar procurements. Most of the source selection procurements performed at the operational level are covered by Air Force Regulation 70-

30. The regulation states

The principal objective in a source selection is to select the offeror whose proposal has the highest degree of credibility, and whose performance can best meet the government's requirements at an affordable cost. (11:3)

Source selection is to be performed in the most efficient manner. Limiting the number of evaluation factors and items, limiting proposal size and reducing the source selection organization are methods to achieve an efficient process (11:3).

Figure 1 reflects a typical evaluation organization for a source selection according to the National Contract Management Association's <u>Source Selection Training Manual</u>. For clarification, a brief definition and description of the terms is provided.

Source Selection Authority (SSA): the official designated to direct the source selection process and make the source selection decision. (24:21)

Advisors: government personnel, designated by the Source Selection Authority (SSA) or the chairperson of the Source Selection Advisory Council (SSAC), who participate as advisors to the SSA, SSAC, or Source Selection Evaluation Board (SSEB). (24:13)

Source Selection Evaluation Board (SSEB): a group of government personnel representing the various functional and technical disciplines relevant to the acquisition to evaluate proposals and report its findings to the SSAC. (24:22)

Contract Definitization Team: a team consisting of the PCO, buyer, pricing/technical personnel, and project officer, and may include ... people from supporting/using commands as well. The team is responsible for negotiating definitive contracts with all offerors within the competitive range. (24:15)

The function of the Cost Realism Committee (CRC) is to perform a detailed analysis of the proposed costs contained in those offers that are considered to have met RFP requirement. (24:101)

The business or management committee's "basic determination to be made is that of responsibility" of the proposed contractor (24:52).

The technical committee is responsible for technical issues to determine that "the offeror clearly understands the engineering, scientific, and operational requirements of the RFP" (24:52).

The organization reflected may "be expanded or contracted, as appropriate, to suit the needs of specific procurements" (24:73).

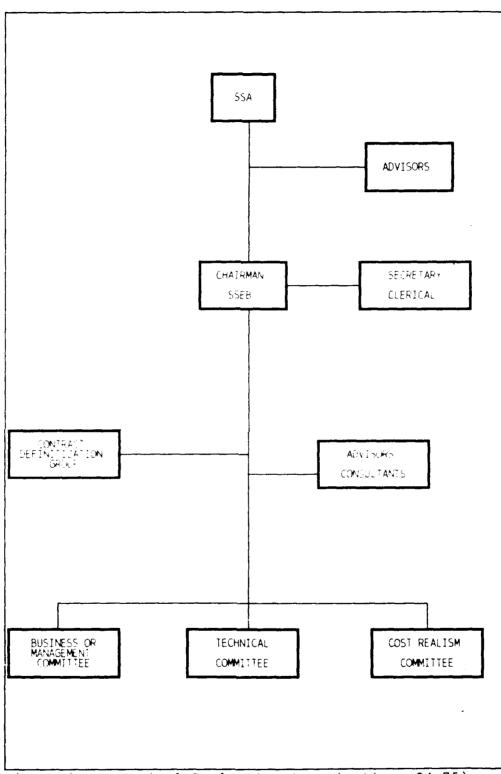


Figure 1. A Typical Evaluation Organization (24:75)

The source selection organization reflected in attachment 20 of the draft AFLC Sup 1 to AFR 70-30 Streamlined Source Selection Procedures is shown in Figure 2. The draft AFLC Sup 1 adds the Performance Risk Assessment Group (PRAG) to the organization chart included in AF Regulation 70-30. The source selection authority is defined above. The PRAG consists "of government personnel who have broad acquisition experience" (21:2). The PRAG reports on past and present performance of an offeror. The Source Selection Evaluation Team (SSET) "first evaluate proposals and then prepare a comparative analysis of the evaluation" (11:4). The SSET includes a contracting team and a technical team. The contracting team "will include the contracting officer, buyer, and price analyst" (11:4). The team's responsibility will include "cost (price) analysis of the offerors' proposals, contract definitization, and negotiation" (11:4). The technical team depicted in the organizational chart refers "to teams necessary to evaluate the proposal for other than cost (price) and contract matters. Examples might be Engineering, Logistics, Management, Testing, etc" (21:19). This organization shows how the NCMA model can be adapted to suit the needs of a particular procurement. The streamlined source selection is designed to "reduce the complexity and size of the source selection organization" (11:3). The streamlined source selection organization, as

presented in Figure 2, is smaller and less complex than the organization presented by NCMA.

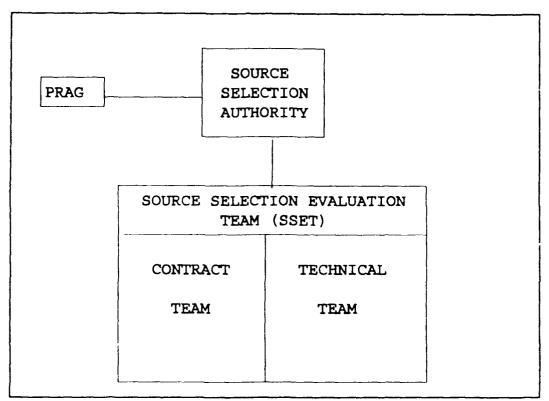


Figure 2. Source Selection Organization - Primary Organization Example (21.19)

Figure 3 reflects the source selection alternative organization example that is found in attachment 20 of the draft AFLC Sup 1 to AFR 70-30. This alternative organization reflects the option the SSA has where "a separate Source Selection Advisory Council (SSAC) and Source Selection Evaluation Board (SSEB) are utilized rather than combining them into a single SSET" (11:12). The SSAC consists of personnel "appointed by the SSA to advise on the conduct of the source selection process" and report the results of the SSEB to the SSA (11:12).

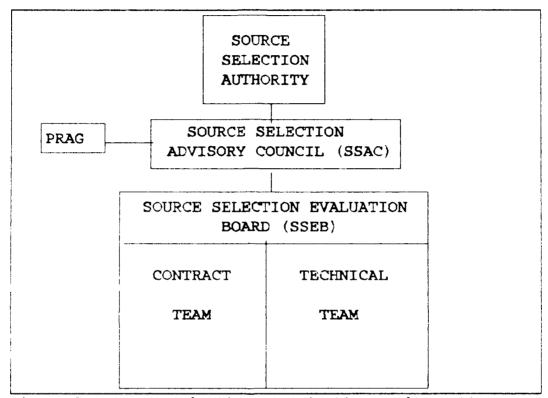


Figure 3. Source Selection Organization - Alternative Organization Example (21:19)

The SSET Source Selection Events are shown in Figure 4. The occurrence of each event is based on the particular source selection. "For example, if award is made without discussions in accordance with FAR 15.610, items 14d, 14e, 17 and 18 would not be applicable" (11:20). It provides an overview of the events that could take place.

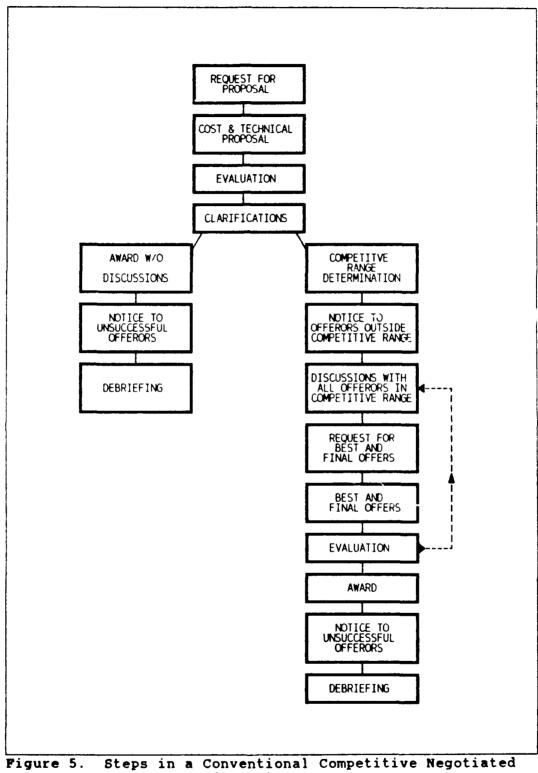
The text <u>Formation of Government Contracts</u> provides a flow chart of the conventional competitive negotiated procurement. This flow chart is presented in figure 5.

1. Business Strategy Panel Sources Sought Synopsis 2. 3. Acquisition Plan Source Selection Authority Named 4. Source Selection Evaluation Team Chief Named 5. 6. Source Selection Plan 7. Source Selection Evaluation Team Established Request for Proposal (RFP) Preparation 8. 9. Complete Reviews of RFP 10. Evaluation Standards Approved by SSET Chief 11. Source Selection Authority Briefed on RFP 12. RFP Released **Proposals Received** 13. 14. Evaluation: Request Audit Support a. ь. Request Past Performance Information Evaluate Proposals c. Prepare Deficiency Report and d. Clarification Requests Prepare Initial Evaluation Report е. 15. Competitive Range Determination and Briefing (as appropriate) 16. Contracts Prepared 17. Receive Best and Final Offer 18. Review Best and Final Offer 19. Complete Proposal Analysis Report Source Selection Authority Decision Briefing 20. 21. Source Selection Decision Document Preparation 22. Contract Award 23. Notification of Unsuccessful Offerors 24. Debriefings Post Award Conference 25.

Figure 4. SSET Source Selection Events (11:20)

The flow chart starts at the issuance of the request for proposal and concludes with debriefing of unsuccessful offerors. It reflects the events that occur in an award without discussions and an award with discussions.

The contracting officer is responsible for many of the source selection events. According to FAR 15.604, the



Procurement (4:531)

contracting officer's responsibility in the source selection process includes

 Issuing solicitations...
 Conducting or coordinating cost or price analyses...
 Conducting or controlling all negotiations concerning cost or price, technical requirements, and other terms and conditions; and
 Selecting the source for contract award, unless another official is designated as the source selection authority. (15:16926)

While the ultimate responsibility lies with the contracting officer, the use of specialists is common. A price analyst is an individual familiar with more advanced techniques for performing cost and price analyses to determine the reasonableness of a proposed price. Therefore, a price analyst is often used as a specialist.

Planning is a key factor in the source selection process. A source selection plan (SSP) is developed and approved before releasing the solicitation. Among other things, the SSP includes the evaluation factors and the relative importance of the factors. The evaluation factors are included in the solicitation in section M. The evaluation factors will only include those factors that impact the selection decision (11:5-6).

The Armed Services Pricing Manual (ASPM) states "acquisition planning provides a forum in which the actual quality requirements of the user can be explored, delineated, and described" (13:Sec 12,4). This is the time when problems and concerns should be discussed. "Unless these factors are identified and examined during planning

and considered in setting the specifications, there is little you can do about them later in analyzing the prices" (13:Sec 12,4).

Elements that relate to contract pricing that should be considered in the planning stage are outlined in ASPM as:

a. Risk. Assess how technical, cost, and scheduling risks might be reduced.
b. Sources. Identify prospective sources, including required sources, based on market research and analysis.

c. Competition. Explore ways to seek, promote, and sustain competition throughout the course of the acquisition.

d. Source selection procedures. Determine the procedures to be followed and assess the effect on pricing.

e. Cost estimate. Prepare a cost estimate independent of any prepared by contractors. (13:Sec 11,6-7)

The goal of early planning is "to intensify competition because competition is the best way to make sure the price you pay is fair and reasonable" (13:Sec 11,7).

In order to have the data necessary to perform a price analysis you "must anticipate what information you will need from the offerors and ask for it in the solicitation" (13:Sec 11,7). The data needed for the analysis to be performed should be requested in the format you need. In determining the data needed "consider dollar value of the procurement, nature of the competition expected, type of requirement, procurement history, and specific requirements of regulations" (13:Sec 11,7).

The requirements developed in the planning stage are transmitted to the contractor through the request for proposal (RFP). The RFP is an important part of the solicitation process. It "provides the frame of reference for the proposals, their evaluation, source selection, and contract" (24:41). Since the RFP is the vehicle upon which offeror's base their proposal, "the quality of the RFP and whether it leads to the submission of comparable proposals" impacts the effectiveness of a source selection evaluation. "Therefore special care and attention should be devoted to the development of the RFP" (24:51).

The RFP and resulting contract are prepared "using the uniform contract format" prescribed by FAR 15.406-1. The uniform contract format is presented in Figure 6. "The format facilitates preparation of the solicitation and contract, as well as reference to and use of those documents by offerors and contractors" (15:16914). Parts I--The Schedule, II--Contract Clauses, and III--List of Documents, Exhibits, and Other Attachments become part of the resulting contract. Part IV--Representations and Instructions remains in the contract file. (15:16914)

The information in Part IV--Representations and Instructions provides the contractors the blueprint for preparing their proposals. Section L, instructions, conditions, and notices, includes instructions on the required organization of the proposal. The offeror may be required to submit the proposal in severable parts. "The

Section Title Part I--The Schedule Solicitation/contract form Α Supplies or services and prices/costs B С Description/specifications/work statement D Packaging and marking E Inspection and acceptance F Deliveries or performance G Contract administration data Н Special contract requirements Part II--Contract Clauses I Contract Clauses Part III--List of Documents, Exhibits and Other Attachments J List of attachments Part IV--Representations and Instructions Representations, certifications, and other K statements of offerors or quoters L Instructions, conditions, and notices to offerors or quoters М Evaluation factors for award

Figure 6. Uniform Contract Format (15:16914-16915)

severable parts should provide for separation of technical and cost or pricing data." Additional severable parts that may be requested include administrative and management. (15:16916) Section L may also include page limitations for the proposals (7:17).

Section M, Evaluation factors for award, identifies

all factors, including price or cost, and any significant subfactors that will be considered in awarding the contract...and state the relative importance the Government places on those evaluation factors and subfactors. (15:16916) The factors included in Section M are extremely important. These factors are those used for the evaluation of the proposals and the determination of contract award. Maximum care should be taken in preparing Section M.

Contractors prepare and submit their proposals in accordance with data included in the RFP. The next step is the evaluation. The proposal evaluation is performed by the Source Selection Evaluation Team. The evaluation will be discussed in a later section of this chapter. The results of the evaluation are communicated to the Source Selection Authority for the final source selection decision (11:11).

This section provided an overview of the source selection process. Next is a discussion of the selection of the evaluation factors used in the source selection process.

Selection of Evaluation Factors. The selection criteria to be used to decide which source will be awarded a contract must be predetermined in every competitive procurement (19:42). The selection criteria consist of the evaluation factors determined in the planning stage. Grskovich states the rationale for the policy of predetermining the criteria is twofold:

 (1) Evaluation criteria represent those performance or cost considerations that are of particular importance to the government. Accordingly, the importance of those considerations should be communicated to the prospective contractors.
 (2) Stating the evaluation criteria in the solicitation document helps ensure that the

prospective contractors are placed on the same competitive footing. (19:42)

According to Casey, the purpose of evaluation factors is to give evaluators and the source selection team members confidence in a contractor's abilities and to serve as discriminators among contractors (2:3). Gregory states in government contracting, the procurement organizations are required not only to decide which factors to include but also be able to justify the selection to contract auditors (18:24). Therefore, the planning and selection of the evaluation factors is important.

The proposal evaluation criteria are included as one of the elements of the RFP.

There are no restrictions on the kinds of evaluation criteria which may be used as long as they are disclosed in the RFP and relate to the purpose of the procurement. The specific criteria used will depend on the particular circumstances. (24:51)

Evaluation factors that should be considered in evaluating proposals are discussed in FAR 15.605. Each acquisition will use evaluation factors tailored to it and only those that will have an impact on the source selection decision. Price, or cost, is required to be included in every source selection. Any other factors that are relevant may be included. "The solicitation shall clearly state the evaluation factors, including price or cost and any significant subfactors, that will be considered in making the source selection and their relative importance" (15:16926-16927). The selection of the evaluation factors to be used are the responsibility of the contracting agency. Comptroller general decisions have ruled that the contracting agency has "discretion in the selection of evaluation factors for a solicitation so long as such factors reasonably relate to the agency's needs in choosing a contractor that will best serve the government's interest" (6:74).

Factors are typically divided into three types: cost, specific, and assessment (7:14). Cost refers to

the evaluation of an offeror's proposed costs (prices). This is a mandatory item for evaluation criteria in accordance with FAR, and is used to determine realism, completeness, and reasonableness.

<u>Specific criteria</u> addresses program characteristics. This is further broken down into two categories, technical and management evaluation areas.

<u>Assessment criteria</u> is more subjective in nature. In evaluating this area, you are more concerned with an offeror's responsiveness to the RFP, as well as, the offeror's ability to perform the requirement. (7:14)

The specific evaluation factors used in the solicitation will vary. Examples of specific factors are provided in numerous sources. Following is a discussion from regulations and journal articles showing different views and types of evaluation factors used.

The DOD FAR Supplement states in section 215.608(b)

When a procurement is subject to acquisition streamlining, the contracting officer may want to include in the solicitation evaluation criteria on cost performance trade-offs, application/tailoring recommendations, and cost-effectiveness of the proposed technical approach. (14:Part 215.608) The <u>Air Force Systems Command (AFSC) FAR Supplement</u> provides a list of evaluation factors that may be considered depending on the particular acquisition. They are:

contractor work measurement, manufacturing management systems, producibility considerations, capacity, surge capability, conservation of strategic materials, commitment to needed capital investment, and reliability and maintainability. (9:102)

Ellram states that important criteria which should be included in any decision regarding selection of a supplier are the quantifiable aspects such as cost, quality, delivery, reliability, and other similar factors (16:8). She adds that additional factors may be included such as financial condition, organizational structure, and technological capabilities (16:12).

Gregory agrees that in addition to the quantitative aspects, a wide variety of factors should influence every significant source selection decision. Variables such as a vendor's quality capability, the effectiveness of his production planning and control system, overall performance history, and terms of purchase should also be considered (18:24).

Hahn explains that the suppliers are typically evaluated on the basis of their technical, quality, delivery, cost, and managerial capabilities. He also adds that additional comparisons are made to the buying firm's requirements or future objectives (20:5).

The <u>Contract Management Training Blueprints</u> provides a list of price related factors that might be considered. This list is included as Figure 7.

Incremental Pricing. 1. 2. Family buy pricing. Government furnished property costs. 3. Options and or multiyear pricing. 4. Lease vs. Purchase costs. 5. Economic Price Adjustments. 6. 7. Transportation costs. 8. Expected costs for maintenance, warranty, repairs, training, installation, manuals, spares, and supplemental supplies. 9. Expected energy costs. 10. Estimated guantities. 11. Life cycle cost (i.e., expected life, salvage value; discounted total cost of ownership).

Figure 7. Price Related Factors to be Considered During Source Selection (17:4.2-3)

An interesting view of the cost factor is provided by Solloway. In most government source selection acquisitions, cost is weighted least. However, the government is always required to include cost as a selection factor (23:9). Solloway states that cost is too often treated as just one of a number of other factors, some significant and some not, instead of being given the unique consideration it deserves in making a smart buy (23:9). The best value approach requires treating cost as an individual factor instead of an integrated selection factor (23:9). The best value approach was defined by Solloway as the cost being measured against the value obtained. He compared the current selection approach to buying a can of beef stew at the supermarket. He emphasizes the importance of buying the whole can and not the individual ingredients. He shows that cost should be used to evaluate an entire proposal and not just pieces. Treating cost as a separate factor and determining the merit of the entire proposal would result in a decision of best value (23:9).

"The use of too few factors will result in insufficient guidance for preparation and evaluation of proposals while the use of too many factors may cause confusion" (4:541). However, "the amount to be paid to the contractor must be considered in the contractor selection process and therefore must be an evaluation factor" (4:543).

According to Hahn, it is the responsibility of the procurement team to

determine the degree of emphasis to be placed on each developmental area and then the specific sequence of the activities. Depending on the maturity of the program and the status of the supplier in question, program emphasis can vary considerably. (20:6)

Relative weights must be assigned to the price and technical evaluation factors defined during planning. The weights should be placed in some form of source selection or proposal evaluation. While abundant detail is not essential, establishing some regularity in the process is required (25:15).

The evaluation criteria provide "the basis for measuring each offeror's ability as expressed in its proposal to meet the government's needs as stated in the solicitation" (24:16).

Once the evaluation criteria are established, they should not be modified. According to Grskovich, the Competition in Contracting Act states in part that

an evaluation of proposals shall be based solely on the factors stated in the RFP. The comptroller general also stated that it was generally improper to add or to substitute evaluation criteria after proposals have been submitted and reviewed by government evaluators. The basis of evaluation must remain constant throughout the evaluation. (19:21,42)

The evaluation criteria are included in the RFP to inform offerors of the importance the government attaches to the various aspects of a proposal (19:42).

After the criteria are determined, evaluation standards are developed. The standard establishes the minimum acceptable level of compliance required for a proposal to be considered acceptable (19:42). Figure 8 provides an example of a description and standard for the criteria of financial capacity. "Standards help ensure uniformity of judgement among the various evaluators and establish a <u>benchmark</u> as to what constitutes compliance with the criteria" (19:42). The source selection official is bound by the relative importance assigned the factors in the RFP. The only discretion allowed is the ability to rescore, if scoring is the basis of award specified in the RFP (4:647).

Area: Management

Item: Financial Capacity

<u>Description</u>: The government anticipates that substantial financial resources will be required by the contractor. The government's processing time from the submission of the contractor's invoices until payment is expected to be 30 days. Offerors shall submit a brief narrative indicating if the offeror has the necessary financial capacity, working capital and other resources to perform the contract without assistance from the government.

<u>Standard</u>: The standard is met when the offeror provides information which can be used to verify the ability to continue operation without payment from the government.

Figure 8. Example of Description and Standard for Financial Capacity

The selection of the evaluation factors is a crucial step of the source selection process. Once the evaluation factors have been determined, they are communicated to the offerors using the RFP. The offerors prepare their proposals in accordance with the RFP. Then the evaluation process begins.

<u>Evaluation Process</u>. Once the evaluation criteria and standards have been established, the request for proposal is issued. Upon receipt of the proposals, the evaluation process begins.

Evaluation is an ongoing process which starts upon the receipt of proposals, is a major part of the determination of the competitive range and concludes when final evaluation information is used to select the source. (4:569)

The objective of the evaluation is "to facilitate competition by conducting written and oral discussions with all offerors who have a reasonable chance of being selected" (10:Part 15.609).

Proposal Evaluation is discussed in FAR 15.608. The purpose of the evaluation is to determine if the contractor can perform as proposed. The evaluation will be completed in accordance with instructions contained in the solicitation. Cost or price analysis will be used to evaluate the cost proposals to determine if the price is reasonable. In addition to determining if the price is reasonable, a determination will be made regarding the offerors understanding of the required effort and their ability to perform the contract. This determination will be made by technical evaluation (15:16928).

Sutton states that the evaluation of the offers must be consistent with the evaluation plan and the evaluation criteria included in the request for proposal. The solicitation's standards, not comparison with other offers, must be the criteria used to judge the merits of the proposal (25:16).

The evaluation is performed by the source selection evaluation team (SSET) which consists of a contract team and a technical team. This organization was shown in Figure 2. The technical team is responsible for evaluation of the technical aspects of the proposal. The contract team will perform the cost or price evaluation.

Additionally, the contract team is responsible for evaluating all other contracting factors. These contracting factors include "offeror's contract terms and conditions, preaward surveys and the making of a determination of a prospective contractors' responsibility" (11:9). "The proposal evaluation is to be conducted in a fair, comprehensive, and impartial manner" (11:8).

The purpose of the technical evaluation is to determine

--Which offeror(s) are considered to be technically acceptable to perform the work.

--Which offeror(s) are considered technically unacceptable.

--And which offeror(s) are marginal, but may become acceptable through making minor revisions to their proposal. (7:21)

The technical evaluation is conducted independent of the cost evaluation. The technical evaluators do not have access to the cost data. The results of the technical evaluation are documented in accordance with the evaluation factors outlined in the RFP. These results are used by the SSET to prepare the proposal analysis report (11:9). Again, the evaluation factors identified in the RFP are the basis for the evaluation. "Care must be taken to avoid comparative analysis of proposals from different offerors" (8:15.6-10).

The detailed procedures of the technical evaluation are not discussed here. It is important to note that the technical evaluation is an important part of the source

selection evaluation process. The results of the evaluation are used in making the final selection of the contractor. Since this review focuses on the cost aspect, the cost evaluation is discussed in detail.

Cost is an important factor. Even where the evaluation criteria state technical and management are more important than cost "where two proposals are closely ranked from a technical and management standpoint, cost to the Government probably will be determinative of award" (3:Sec 7,6).

There are numerous Comptroller General Decisions regarding the issue of cost/technical tradeoffs. When price is not the determining factor, the contracting agency can award to a higher priced, higher rated contractor if the price premium is justified (5:136). Additionally, the contracting agency can award to a "lower price, lower technically-scored offeror" where the cost premium involved with the high technically-scored offeror is not justified (6:145). Comptroller General decisions have supported "best value" decisions where cost is considered in determining the overall value of the effort to be received.

Cost or price evaluation will be performed by the contract team.

Appropriate use shall be made of field pricing reports and audits, when analyzing cost proposals. Government-developed Independent Cost Analysis or Mcst Probable Cost Estimates shall be used, as applicable. Life Cycle Cost will be considered, if appropriate. Review of contract cost data will consist of analysis

to determine that prices are fair and reasonable. (11:9)

The results of the evaluation will be included in the report furnished to the source selection authority for a decision.

The purpose of the cost evaluation is to determine

Completeness - All cost information required by the RFP has been submitted and tracks to SOW [statement of work] item/elements.

Realism - Costs are compatible with proposal scope and effort, i.e., proposed costs are related to program scope being neither excessive nor insufficient for the effort to be accomplished.

Reasonableness - Costs are fully justified and documented, i.e., developed by using appropriate and acceptable methodologies, factual and verifiable data, estimates supported by valid and suitable assumptions and estimating techniques. (8:15.6-11)

The National Contract Management Association's National Education Seminar text titled <u>Source Selection</u>, contains information regarding the evaluation of the cost proposal in cost-type contracts. According to the text, the cost proposal

will be evaluated from the standpoint of total cost to the Government as well as to the reasonableness and realism of the proposed effort. Reasonableness is based on the assessment of the level of proposed effort. The test for realism assures that risk is taken into consideration to preclude a buy-in that promises a low cost but cannot be substantiated when measured against the level or efficiency of the work. Thus, the proposal must convince the source selection official that the proposed cost represents what is fair and reasonable, considering the efficiency and effectiveness of the proposed work. (3:Sec 7,6)

The NCMA text further describes the cost evaluation process as follows:

Proposals are separated into two or three parts-the technical and management portions and the cost portion. Technical or management evaluators do not see the cost portion of the proposals and they do not obtain information from the Cost Realism Committee (CRC) during the scoring process. The CRC may, however, obtain information from the TEC [technical evaluation committee] or MEC [management evaluation committee].

Cost or price must be considered in every contract award. However, in negotiated procurements using formal source selection procedures, award need not be made on the basis of lowest cost or price. Therefore, cost or price is generally not scored and should never be weighted. To do so would to courage offerors to submit unrealistically low price proposals that would generate high evaluation scores. (24:101)

Since cost and price analysis is a very specialized part of contracting, it requires the skills of specialists. These specialists serve on the cost realism committee, whose function is to perform detailed review of the cost proposals to:

Determine the validity of the proposed costs.

Estimate the probable costs of each proposal to the Government, regardless of the offeror's projected costs.

Determine the probable cost differences among the offerors, and the causes thereof, including those due to differences in operating methods or procedures. (24:101-102)

Based on the information contained in the offeror's proposals, the CRC must determine if the offeror's cost is realistic. The cost information contained in the proposal will be analyzed and an estimate of probable cost to the Government included in the committee's report. The costs are not scored, but strengths and weaknesses are identified (24:102). The contracting officer is responsible for the pricing arrangements. Specialized pricing help should be requested in circumstances involving costly, technically complex, or unique requirements. However, the contracting officer remains responsible for the quality of the pricing arrangement. This is based on the legal responsibility of the contracting officer as an agent of the Government (12:Sec 1,3). "Contract pricing is the function that gathers, assimilates, evaluates, and, in establishing objectives, brings to bear all the skills and techniques needed to shape the eventual pricing arrangement" (12:Sec 1,4).

In many competitive negotiations, price analysis is used. Price analysis makes use of outside information available to the contracting officer (4:573). Price analysis is defined in FAR 15.801 as "the process of examining and evaluating a proposed price without evaluating its separate cost elements and proposed profit" (15:16934). If competition is limited, the contracting officer may require offerors to furnish and certify cost or pricing data before award (4:573). If cost or pricing data are furnished, cost analysis is normally required. However, if adequate price competition is obtained, even though certified cost and pricing data are furnished, the contracting agency is not required to perform cost analysis. If a determination can be made that the proposed price is fair and reasonable based on price analysis, cost

analysis is not required (5:136). In instances where the price analysis is not adequate to determine the reasonableness of the proposed price, cost analysis is used. Cost analysis is defined in FAR 15.801 as

the review and evaluation of the separate cost elements and the proposed profit of (a) an offeror's or contractor's cost or pricing data and (b) the judgmental factors applied in projecting from the data to the estimated costs in order to form an opinion on the degree to which the proposed costs represent what the cost of the contract should be, assuming reasonable economy and efficiency. (15:16934)

"The determination that the bottom line is fair and reasonable must be based on some form of analysis, either price or a combination of cost and price analysis" (24:54).

In analyzing the data, technical as well as price factors should be considered in order to select the best offer. The pricing issues should be identified and appropriate analytic techniques used to make a proper price decision (13:Sec 11,7).

The baseline used for cost evaluations is an independent government cost estimate (ICE). An ICE is the

government's estimate prepared prior to receipt of the proposals. It uses the SOW [statement of work] and the proposal requirements in providing a parametric estimate. It is an independent, objective, unbiased computation based on data accumulated from prior or similar programs. (7:36)

Liston states that since all proposals are unique, it is not appropriate to compare them to a single government generic cost estimate (22:7). A better way of evaluation would be to review the proposals for cost realism. Cost realism is an important part of the cost-control process (22:7). Wall states that cost realism is critical to the evaluation process in order "to get industry to submit realistic bids and convince these same contractors that such bids will be honestly evaluated without penalty" (26:31).

Based on the importance of the cost realism aspect, Liston believes that

the first task is to define cost realism. There is no standard definition that fits all cases; therefore one of the first tasks of the request for proposal preparation should be the definition. The definition should convey to the offerors how cost realism would be measured. (22:7)

Wall further states that the

cost realism information must be shared by all members of the government-contractor team. It calls for fairness in bidding and fairness in evaluation. Proper attention to cost realism by industry and government managers can go a long way to restoring public confidence. (26:51)

Cost Realism Analysis is defined in DOD FAR Supplement

Part 215.801 as:

a review of the cost position of an offeror's proposal to determine if the overall costs proposed are realistic for the work to be performed, if the costs reflect an offeror's understanding of the requirements, or if the costs are consistent with the various elements of the technical proposal. (14:Part 215.801)

The use of a cost realism analysis is prescribed in section 215.805-70:

(a) Even when adequate price competition exists, it may be appropriate to perform a cost realism analysis (see 215.801) to ensure that there is a reasonable expectation that the proposed costs are consistent with the technical proposal, especially for cost-reimbursement contracts. Cost realism analysis should also be used when the solicitation contains new requirements that may not be fully understood by competing contractors; when there are quality concerns; or when past experience has indicated that contractors have proposed costs which have resulted in quality or service shortfalls.

(b) Information necessary to perform a cost realism analysis should be determined during procurement planning and development of the solicitation based upon the circumstances of the particular procurement. There are instances where there may be information available from Government sources to perform a cost realism analysis; in other instances information will have to be obtained from the offerors. In the latter case, the contracting officer shall request only those data necessary to perform the cost realism analysis, not the submission or certification of cost or pricing data. (14:Part 215.805)

Grskovish contends that since the evaluation factors usually rate cost as least important, true competition does not exist because the offerors are submitting a proposal based on their own method or approach to satisfying the terms of the solicitation requirements. Therefore comparing one offeror's price against another's price is an inadequate way to determine if the price is fair and reasonable (19:20).

The steps that occur during the evaluation process will be determined based on the individual procurement. However, extreme care should be taken to ensure that the evaluations are consistent with the evaluation plan presented in the request for proposal (25:17). Comptroller General decisions have reflected that objections will not be made to "evaluation of technical and cost proposals where review of source selection documents shows that the

evaluation was fair and reasonable and consistent with the evaluation criteria in the solicitation" (6:129).

Conclusion

Adler states, "Source Selection procedures should be simplified and streamlined, and oriented to enable the government to obtain best value" (1:44). An evaluation plan should be structured to allow a source selection official the knowledge necessary to make a rational and defensible decision to obtain the best value to the purchaser (23:9).

This chapter discussed the current literature on the source selection process. First an overview of the process was provided. The overview identified the team players in the source selection process. It also reflected the steps taken in preparing the request for proposal, evaluating offors, and selecting a contractor. The overview emphasized the importance of the planning stage. The planning stage is the base for the remaining steps of the process.

Second was a discussion of the selection of the evaluation factors used in the source selection. This section explained the purpose and importance of the evaluation factors. The specific factors used must be tailored to the particular procurement. However, cost is required to be considered in every procurement.

The last section discussed the evaluation process. While the evaluation process includes both technical and cost evaluations, the emphasis was on the cost evaluation. The discussion shows the price analyst's potential role as a contract team member. Again the evaluation process that occurs will vary depending on the particular acquisition. However, the evaluation must be done in accordance with the evaluation factors developed and presented in the request for proposal.

This review disclosed that planning and selecting the evaluation factors are important parts of the source selection process.

III. <u>Methodology</u>

<u>Overview</u>

This chapter discusses the methodology used to solve the investigative questions addressed in this study:

 What is the role of the price analyst in preparing the request for proposal?

2) What additional information could be provided to the contracting officer by the price analyst to ensure essential contractor data is received?

3) To what degree do the cost evaluation factors and the proposal preparation instructions discriminate between proposals?

4) Should changes be made to the price analyst's role in the source selection process?

The investigative questions were answered using two methods: a literature review and interviews. The literature review, presented in Chapter 2, includes regulations and articles on the source selection process and the price analyst's role in the process. The interviews were conducted with price analysts and contracting officers who perform source selections. Due to time constraints, the research was limited to United States Air Force installations that perform operational level contracting in the continental United States.

Investigative question one was answered using both research methods. The literature review outlined the regulatory instructions for the price analyst's role and the interviews reflect what is actually happening in the field. The remaining questions were answered through information gathered in the interviews.

This chapter discusses the development of the interview questionnaire, the selection of the interview participants, the reasons for the methodology used, and the interview process.

Interview Questionnaire Development

The first step was to develop the interview questions. The information gathered in the literature review, along with the researcher's experience, was used to formulate the interview questions. After the interview questions were developed, the interview document was reviewed by an instructor in the School of Systems and Logistics at the Air Force Institute of Technology. The instructor has experience as a price analyst and is familiar with source selection procurement. Since this study is of source selections at the operational level of contracting, the instructor is outside the population of this research. The purpose of the review was to test the clarity and usefulness of the interview document. Based on the review, minor changes were made to clarify some of the questions and a separate interview document was made for the

contracting officers. A copy of the interview document for the price analysts is included in Appendix A, and a copy of the interview document for the contracting officers is included in Appendix B.

Sample Selection

The second step was to identify the participants to be interviewed. The January 1990 issue of the Directory of Air Force Operational Contracting Activities, published by Air Force Logistics Management Center at Gunter Air Force Base Alabama, was obtained for establishing contacts. The directory identified 94 bases that perform operational contracting in the continental United States. The directory included the mailing address, telephone number, and number of authorized personnel by officers, enlisted, and civilians. Due to time and budget constraints, it is not possible to interview the entire population. Bases that perform source selections at the operational level were judgementally selected for contact from the directory. Six price analysts with experience in source selection at the operational level were identified and contacted for interview. The price analysts identified the contracting officers they supported and the contracting officers were also contacted for interview. Some of the contracting officers contacted did not have experience with source selection at the operational level and some chose not to participate in the interview. Additional contracting

officers were identified using the directory and recommendations from other procurement personnel. A total of six contracting officers were also interviewed.

Reasons for Methodology Used

Interviews were selected as the appropriate process because it allows open-ended questions which allow accumulation of additional data. Additionally, the information requested was not quantitative in nature, and could only be obtained through verbal explanation and assessment of the participants' experiences. Since the information was open-ended, no statistical analysis was performed.

Interview Process

The third step was to conduct the interviews. Telephone interviews were conducted due to the various locations of the subjects. Financial resources prohibited the use of face to face interviews. Responses to the interview were recorded in writing during the interview process.

The subjects were contacted to schedule appointments. The contact included a brief explanation as to the nature of the interview questions and a request to schedule one hour for the interview.

At the start of the interview, the subjects were informed their responses would be protected. They would be listed as interview subjects, but responses would not be

tied to names of the subjects. This assurance was for the purpose of encouraging full and open participation in the interview process. The subjects were very cooperative during the interview process.

Summary

This chapter described the methodology used in conducting this research. The information obtained using this methodology was analyzed and conclusions formed for the investigative questions set forth in Chapter I. The results and findings are presented in Chapter IV.

IV. Findings and Analysis

<u>Overview</u>

This chapter presents the findings of the research done in accordance with the methodology described in Chapter III. The chapter begins with a description of the sample that was interviewed. The description includes the geographical location, rank/grade, length of government service, years of pricing/contracting experience, and the number of source selections performed by the sample interviewed. The description is followed by a presentation of the responses to the interview questions. An analysis of the responses to the interview questions is included. The presentation begins with a section on the price analyst's involvement in various stages of the source selection process, followed by a discussion of additional data or guidance the price analyst could provide to the contracting officer to improve proposals received, followed by a discussion on the adequacy of proposals received, and concludes with suggestions to improve the price analyst's role in the source selection process.

Description of the Sample

The sample selected consisted of price analysts and contracting officers who have experience performing source selections at the operational level. The <u>Directory of Air</u>

Force Operational Contracting Activities was used to establish telephone contacts at bases performing operational level contracting. Using those contacts and other recommendations from contracting personnel, including recommendations by the price analysts interviewed, a sample of twelve was used for this research. The sample included six price analysts and six contracting officers. Table 1 reflects the geographical location of the twelve persons interviewed.

Price Analyst	Contracting Officer			
Eglin AFB, FL	Eglin AFB, FL			
Wright-Patterson AFB, OH	Wright-Patterson AFB, OH			
Tinker AFB, OK	Tinker AFB, OK			
Langley AFB, VA	MacDill AFB, FL			
Lackland AFB, TX	Kelly AFB, TX			
Andrews AFB, MD	Patrick AFB, FL			

Table 1. Geographical Location of Persons Interviewed

General information requested during the interview was rank/grade, number of years of government service, number of years of contracting/pricing experience, and amount of source selection performed. The responses to these questions are recapped in the following paragraphs.

<u>Rank/Grade</u>. Table 2 reflects the rank/grade of the persons interviewed.

Rank/Grade	Price Analyst	Contracting Officer
Sergeant		1
Captain	1	
GS-11		1
GS-12	3	2
GS-13	1	
GM-13	1	2
Total	6	6

Table 2. Rank/Grade of Persons Interviewed

Length of Government Service. Table 3 shows the years of service for the price analysts and contracting officers interviewed. The table reflects that all of the persons interviewed have at least five years of service and forty two percent have in excess of twenty years of service. The length of service was further defined into years of pricing or contracting experience.

Years of Service	Price Analyst	Contracting Officer	Total
0-5	0	0	0
6-10	2	1	3
11-15	2	2	4
16-20	0	0	0
More than 20	2	3	5
Total	6	6	12

Table 3. Length of Service of Interviewees

Number of Years of Pricing/Contracting Experience. The subjects were requested to identify the pricing/ contracting experience included in their total years of government service. Their responses are reflected in Table 4. The table shows that twenty five percent of the sample had specialized experience less than five years, fifty percent had six to ten years, seventeen percent had eleven to fifteen, and eight percent had specialized experience in excess of twenty years.

Years of Experience	Price Analyst (Pricing)	Contracting Officer (Contracting)	Total
0-5	2	1	3
6-10	3	3	6
11-15	1	1	2
16-20	0	0	0
More than 20	0	1	1
Total	6	6	12

Table 4. Number of Years of Pricing/Contracting Experience

Number of Source Selections Performed. Table 5 shows the number of source selections at the operational level the participants have performed. Fifty percent of the persons interviewed have participated in less than five source selections at the operational level. Several stated that most of the procurements at the operational level do not use the source selection procedures but are performed using sealed bid procedures. However, thirty three percent

of the individuals interviewed had participated in more than twenty source selections at the operational level.

Number of Actions	Price Analyst	Contracting Officer	Total
Less than 5	5	1	6
5-10	0	2	2
11-15	0	0	0
16-20	0	0	0
More than 20	1	3	4
Total	6	6	12

Table 5. Number of Source Selections Performed

The tables show significant government procurement experience by the interviewees. Although the source selection participation is not that large in number, the experience shown will provide adequate responses to answer the research problem.

This section has provided the demographics of the sample interviewed. The next section presents the responses to the interview questions.

Responses to Interview Questions

The interview consisted of twelve questions and is included in Appendices A & B. Follow up questions were asked during the interview based on responses of the individuals interviewed. The first section of the interview addressed the price analyst's current involvement in the planning stage, the development of the evaluation

factors, the development of the proposal preparation instructions, and the evaluation stage of the source selection process. Next the individuals were asked if the level of involvement was adequate and if not, what level of involvement would be adequate. Additionally, individuals were asked what additional data or guidance could be provided by the price analyst to improve the proposals received. The next section of the interview dealt with the adequacy of the proposals received. The final section of the interview considered suggestions that would improve the price analyst role in the source selection process. The responses to each section of the interview follow. The responses are categorized by price analyst and contracting officer responses.

<u>Price Analyst Involvement in the Source Selection</u> <u>Process</u>. The price analyst involvement in the source selection process was discussed in four stages: planning stage, preparation of the evaluation factors for the request for proposal (RFP), preparation of the proposal preparation instructions for the RFP, and evaluation of proposals.

<u>Planning Stage</u>. The first question addressed the extent of the price analyst's overall involvement in the planning stage of the source selection process. The responses given are shown in Table 6. The majority of the price analysts interviewed had limited involvement in the

planning stage of the procurement. One price analyst stated he had minimum involvement while another had no involvement. The limited involvement usually consisted of attending meetings and providing input to the contracting officer. The extent of involvement included assisting in determining the acquisition strategy, evaluating the acquisition plan, and assisting in determining the type of procurement to be used. It was recognized the contracting officer is responsible for the plan. The price analyst role was as an advisor who provided recommendations.

Table 6. Responses to Price Analyst Involvement in the Planning Stage

	Price Analyst	Contracting Officer
Significant		1
Limited	4	2
Minimum	1	
None	1	3
Total	6	6

Fifty percent of the contracting officers stated the price analyst had no involvement in the planning stage of the procurement. One contracting officer stated the contract specialist, contract negotiator, and the technical team are responsible for the planning and the price analyst is not involved. Two contracting officers stated the price analyst had only limited involvement. The price analyst is always invited to attend any meetings held during the planning stage. Pricing input was requested in determining the contract type, writing unique factors that related to the cost/price aspect of the procurement, and writing the acquisition plan. One contracting officer stated the price analyst had significant involvement in the planning stage. The price analyst attends all meetings and assists the contracting officer and contract negotiator in writing the acquisition plan.

Preparation of the Evaluation Factors. The second question asked regarded the extent of the price analyst's involvement in the preparation of the evaluation factors for the request for proposal. These responses are summarized in Table 7. The responses from the price analysts were identical to the level of involvement in the planning stage, ranging from limited to no involvement. The evaluation criteria at the operational level seem to be routine factors that are used in numerous procurements. One price analyst stated the contracting officers at her base use an established database to develop the evaluation criteria. The price analyst was responsible for reviewing and updating the database. The majority of the price analysts interviewed were involved in attending meetings where they provided input on evaluation factors for Section M of the request for proposal. They also reviewed the factors as written by the contracting officer or negotiator.

Contracting officer's responses indicate the price analyst's level of involvement increases in this stage. Fifty percent stated the price analyst had limited involvement in the preparation stage versus only thirty three percent at the planning stage. The involvement included writing the evaluation factors that relate to cost, participating in meetings and panels, and providing input on life cycle cost when applicable. Two of the contracting officers stated price analysts have no input into the evaluation factor determination. They stated the determination is made by the contract specialist, negotiator, and technical team. One contracting officer stated the price analyst had extensive involvement in the preparation of the evaluation factors. The price analyst was responsible for writing the evaluation factors with assistance from the contracting officer and contracting negotiator.

Table 7. Re										
Preparation	n of	the	Εv	aluati	on	Facto	rs	for	the	RFP

	Price Analyst	Contracting Officer
Extensive (Write Evaluations)		1
Limited	4	3
Minor (Review only)	1	
None	1	2
Total	6	6

Preparation of the Proposal Preparation

Instructions. The third question was the extent of the price analyst's involvement in preparation of the proposal preparation instructions for the request for proposal. The responses are reflected in Table 8. The responses are similar to the responses to the first two areas addressed: planning and preparation of the evaluation factors. The price analysts interviewed stated their involvement was somewhat less. The involvement ranged from limited to none, however limited involvement was the response of chree of the price analysts versus four in the previous stages and minor involvement was two versus one. The involvement included attending meetings and reviewing the instructions prepared by the contracting officer and contract negotiator. Input was provided by the price analyst when requested.

	Price Analyst	Contracting Officer
Extensive (Write Instructions)	0	2
Limited	3	1
Minor (Review Only)	2	1
None	1	2
Total	6	6

Table 8. Responses to Price Analyst Involvement in Preparation of the Proposal Preparation Instructions for the RFP

A third of the contracting officers stated the price analyst's involvement was extensive, while a third stated there was no involvement. One contracting officer stated the involvement was limited, while one stated the involvement was minor. The contracting officers who stated the involvement was extensive, added that the price analyst was responsible for preparing the proposal preparation instructions for the RFP in coordination with the contracting officer. The remaining contracting officers stated it is the contracting officer's responsibility to write the instructions and the price analysts are used only for review purposes.

Evaluation Stage. The final question was the price analyst's involvement in the source selection process during the evaluation stage. The responses are summarized in Table 9. The price analyst involvement in the evaluation stage of the proposals was judged by all but one of the individuals to be significant. The response was qualified by several of the respondents who stated the involvement varied on a case by case basis depending on the dollar value and complexity of the procurement. Normally, the price analyst is responsible for reviewing the cost proposal. The price analyst then provides the data to the contracting officer that is necessary to prepare clarification requests and deficiency notices to the

management team after their review to discuss any discrepancies between the cost and technical approaches. While the contracting officer has the responsibility to make their own determination of the reasonableness of the proposed price, the price analyst's analysis plays a key role in making that determination. In the event that a decision is made not to involve the price analyst, due to the low dollar value or complexity of the procurement, the analyst is requested to review the analysis prepared by the contracting officer.

One contracting officer stated at the evaluation stage the price analyst's role was minimum. The contracting officer had in excess of 20 years of experience and did most of his own evaluations. He maintained the evaluation was the contracting officer's responsibility.

-	Evaluation	-	

Table 9. Responses to Price Analyst Involvement in

	Price Analyst	Contracting Officer
Significant	6	5
Limited		
Minimum		1
Total	6	6

<u>Analysis</u>. Table 10 shows a summary of the responses relating to the price analyst's involvement in the different stages of the source selection process. The

first four stages of the table (planning, evaluation factors, proposal preparation instructions, and evaluation)

Stage	Level of Involvement	Price Analyst	Contracting Officer	Total
	Significant	0	1	1
	Limited	4	2	6
Planning	Minimum	1	0	1
	None	1	3	4
	Significant	0	1	1
Evaluation	Limited	4	3	7
Factors	Minimum	1	0	1
	None	1	2	3
	Significant	0	2	2
Proposal	Limited	3	1	4
Preparation Instructions	Minimum	2	1	3
	None	1	2	3
	Significant	6	5	11
	Limited	0	0	0
Evaluation	Minimum	0	1	1
	None	0	0	0
	Significant	6	9	15
	Limited	11	6	17
Summary	Minimum	4	2	· 6
	None	3	7	10
	Total	24	24	48

Table 10. Summary of Responses to Price Analyst Involvement in the Source Selection Process

are identical to the previous tables and are reproduced in Table 10 for easy reference. The last stage titled summary represents a total of the responses by level of involvement. Each stage of the process represented is considered to have equal weight, therefore the numbers in the stage titled summary merely are sums of the responses of the stages by level of involvement.

Table 11 presents the data provided in Table 10 with the results expressed as a percentage. A total of forty eight responses were received, four responses from each of the twelve subjects interviewed. Total percentage figures are based on responses for each individual stage. For example, the total responding significant involvement for the planning stage was one, therefore eight percent of the total responses and expressed in the table as .08. The summary section is the summation of all responses. There were fifteen total significant responses which represents thirty one percent of the total responses, depicted in the table as .31.

Thirty five percent of the responses considered the price analyst's involvement in the four stages of the source selection discussed as limited. This consisted of forty six percent price analyst's responses and twenty five percent contracting officer's responses.

Thirty one percent of the responses stated the price analyst's involvement in the four stages is significant.

This included twenty four percent price analyst's responses and thirty eight percent contracting officer's responses. - - --

Stage	Level of Involvement	Price Analyst (Percent)	Contracting Officer (Percent)	Total
Planning	Significant	.00	.08	.08
	Limited	.33	.17	.50
	Minimum	.08	0	.08
	None	.08	. 25	. 33
Evaluation Factors	Significant	.00	.08	.08
	Limited	. 33	. 25	. 58
	Minimum	.08	.00	.08
	None	.08	.17	. 25
Proposal Preparation Instructions	Significant	.00	.17	.17
	Limited	. 25	.08	. 33
	Minimum	.17	.08	.25
	None	.08	.17	. 25
Evaluation	Significant	. 50	. 42	. 92
	Limited	.00	.00	.00
	Minimum	.00	.08	.08
	Non e	.00	.00	.00
Summary	Significant	. 24	. 38	. 31
	Limited	. 46	. 25	. 35
	Minimum	.17	.08	.13
	None	.13	. 29	. 21
	Total	1.00	1.00	1.00

Table 11. Summary of Responses Expressed as Percen	tages
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Twenty one percent of the responses reflected there was no price analyst involvement in the four stages of the source selection process discussed. This percentage consisted of seventeen percent price analyst's responses and eight percent contracting officer's responses.

The involvement was rated minimum by thirteen percent of the responses. This percentage consisted of seventeen percent price analyst's responses and twenty nine percent contracting officer's responses.

This summary shows that the majority of the responses (sixty six percent) considered the price analyst's involvement in the planning, development of evaluation factors, development of the proposal preparation instructions, and evaluation stages to be limited to significant. However, it is important to look at the price analyst's involvement in each of the individual stages.

Each stage reflects at least fifty percent of the responses reflecting price analyst's involvement of limited to significant. The highest level of involvement being in the evaluation stage. The mix between the responses, for limited and significant involvement, by the price analysts and the contracting officers is very similar:

	<u>Price Analyst</u>	<u>Contracting Officer</u>
Planning	4	3
Evaluation Factors	4	4
Instructions	3	3
Evaluation	6	5

However it is noted that the contracting officer's responses include significant involvement more often than those of the price analysts. The above analysis shows the views of the price analysts and the contracting officers interviewed regarding the price analyst's role in the four stages of the source selection process are similar. The next area of concern was whether the involvement was adequate.

Adequacy of the Price Analyst's Involvement. The individuals were asked if they felt the price analyst involvement was adequate. Their responses are reflected in Table 12. As the table shows, all of the contracting officers felt the level of involvement was adequate at all stages of the source selection process.

	Adequate Involvement		Inadequate Involvement			
	PA	со	Total	PA	со	Total
Overall Planning	2	6	8	4		4
Evaluation Factors	1	6	7	5		5
Proposal Instructions	1	6	7	5		5
Evaluation Stage	6	6	12			0
Total	10	24	34	14		14

Table 12. Responses to Adequacy of Price Analyst Involvement

PA represents Price Analyst Response . CO represents Contracting Officer Response

The price analysts felt that their involvement was adequate only at the evaluation stage of the source selection process. The majority of price analysts felt that their involvement was inadequate at the planning stage, development of the evaluation factors, and preparation of the proposal preparation instructions.

The price analysts who felt the level of involvement was inadequate were asked what level of involvement would be adequate as a follow on question. They responded the price analyst should be more involved in the planning stage, developing evaluation factors, and development of the proposal preparation instructions. They believe that pricing input would help in determining alternate means of contracting, development of award fee plans, and determining the specific data needed for adequate price/cost evaluations. They stated their involvement should not be limited to a review since the price analyst is considered a team member, therefore the involvement should be greater at all stages. However it was recognized that resource limitations and time constraints often preclude the desired involvement. Ideally each operational base should have their own pricing capabilities. In the event that is not possible, the supporting price analysts should have the money available for needed temporary travel to support the contracting officers in source selections.

One contracting officer who stated the involvement was adequate, added that support is available as needed. Full involvement would be desired, however, he also recognized that it is not practical given the staffing limitations currently existing in the pricing branch.

<u>Analysis</u>. In order to compare the results of the responses relating to the involvement of the price analyst and the adequacy of the involvement, the responses are again presented as percentages. The percentages are shown in Table 13. The percentages shown in Table 11, responses by level of involvement are used for comparison purposes in this analysis.

The total responses resulted in seventy one percent stating the price analyst's involvement in the four stages of the source selection is adequate. All of the contracting officer's responses stated the price analyst's involvement is adequate. While only twenty one percent of the price analysts believe their involvement is adequate.

	Adequate Involvement (Percent)		Inadequate Involvement (Percent)			
	PA	co	Total	PA	со	Total
Overall Planning	.17	. 50	. 67	.33		. 33
Evaluation Factors	.08	. 50	. 58	. 42		. 42
Proposal Instructions	.08	. 50	. 58	. 42		. 42
Evaluation Stage	. 50	. 50	1.00	.00		.00
Total	. 21	. 50	.71	. 29		. 29

Table 13. Responses to Adequacy of Price Analyst Involvement Expressed as Percentages

PA represents Price Analyst Response CO represents Contracting Officer Response

First a look at the contracting officer's view. Table 11 shows that the majority of the contracting officers stated the price analyst's involvement in each stage of the process was limited to significant. The largest percent of involvement at the significant level being in the evaluation of proposals stage. Based on the responses in the current involvement and the adequacy of that involvement, most contracting officers believe the price analyst has a role in the source selection process and that it is being performed at an adequate level.

Table 13 shows that the price analysts believe their involvement is adequate only at the evaluation stage. The responses show that in the remaining three stages (planning, evaluation factors, and proposal preparation instructions) they feel their involvement is inadequate. While table 12 shows the price analysts are currently involved in the process, the results in Table 13 show they believe the involvement is inadequate.

<u>Additional Data or Guidance</u>. All the subjects interviewed were asked what additional data or guidance the price analyst could provide to the contracting officer to improve the proposals received.

<u>Responses</u>. Three of the contracting officers stated they could not think of any additional data or guidance the price analyst could provide to improve proposals received. The remaining three contracting officers stated the following:

1. The price analyst should provide faster response time.

2. The price analyst who will perform the reviews should attend the meetings during the source selection process.

3. The price analyst should provide more advice on cost realism.

4. The price analyst should compare the contractor's proposals and the government's independent cost estimate and provide an explanation of the differences to the contracting officer.

The price analysts stated the following:

 They could provide input during the planning stage regarding the contract type and assist in determining if adequate competition will exist.

2. They could give guidance regarding cost analysis versus price analysis and aid in determining the data that is required to perform each type of review.

3. They could provide guidance concerning the criteria required by the regulations regarding pricing that contracting officers may not understand or "look into as deep as necessary". An example was the requirement to determine cost realism and the data required to make that determination.

4. They could provide guidance regarding the data needed to determine cost realism. This information could

be provided to the contractors in the RFP eliminating the need to request additional data at a later time.

5. They could provide more efficient support if involved in the process at the early stages. One price analyst stated that the source selection team should be established early and involve the price analyst in all meetings or at least provide an overview of the decisions made in the meetings. The early involvement would allow the pricing action to be performed smoother and more efficiently.

6. They could provide guidance on the use of clauses previously developed. They could also make suggestions on the use of formats and instructions that have proven successful on previous procurements.

Analysis. The responses given by the contracting officers appear to be procedural type suggestions. Most of their suggestions would not impact the proposals received, but would impact the proposal evaluation stage. However, an exception is the response that the price analyst who will perform the reviews should attend all the meetings. The price analyst's consistent attendance could impact the proposals received because the price analyst would have a deeper understanding of the procurement. This understanding would aid in providing better guidance on the evaluation factors and proposal preparation instructions to be used in the request for proposal. Additionally, this

involvement would facilitate a more efficient evaluation of the proposals received.

One price analyst stated early involvement of the price analyst would aid in improving proposals received. The early involvement would allow the price analyst to acquire a better understanding of the procurement.

Summarizing the remaining price analyst comments, they stated additional data or guidance could be provided to the contracting officer relating to:

- 1. Contract type.
- Competition.
 Cost versus price analysis.
- 4. Cost realism.

Adequacy of Proposals Received. The next section of the interview concerned the adequacy of the data received in the contractor's proposals. This section included three questions:

1. Is the data received in the contractor's proposals adequate for determining the adequacy of the proposed costs?

2. Is data received that is not used, or not required, to determine the adequacy of the cost?

3. If excessive data is received, is it requested in the request for proposal?

Adequate Data Furnished. The first question regarding the proposals was whether the data that was received in the proposals was adequate to determine the adequacy of the proposed cost. The responses are reflected in Table 14.

	Price Analyst	Contracting Officer
Yes	1	6
No	2	
Sometimes	3	
Total	6	6

Table 14. Responses to Adequacy of Data Received in Proposals

Three of the analysts stated the data received was only sometimes adequate. Often during the evaluation process, clarification is needed from the contractors regarding the data submitted. Usually the data is adequate for determining the reasonableness of the proposed costs, but not the completeness or realism. One price analyst stated the trend seems to be to request more and more data. There is typically enough data to determine the adequacy of the proposed cost, in many cases too much data. Two of the analysts stated the data submitted is not adequate. One is in the process of trying to rewrite the format of the request for proposal preparation instructions to improve the adequacy of the data received. The other analyst, who responded that the data was inadequate, stated that the inadequacy results in more delays caused by having to go back to the contractor to obtain the necessary data. Only one price analyst stated the data received was adequate to determine the adequacy of the proposed cost. He stated usually the data was adequate, but sometimes he had a few

questions that required clarification of the data submitted or to correct omissions.

All of the contracting officers stated the data was adequate. One contracting officer stated that some contractors fail to comply with the instructions in the request for proposal and furnish no data. However, the contracting officer has the right to get additional data from the contractor or declare the contractor not in the competitive range. In addition to clarification of data that is submitted, the contracting officer may require certification of the cost data after proposals are received if adequate price competition does not exist.

Excessive Data Furnished. The next question asked regarding the adequacy of the data received in proposals was whether or not data was received that was not used or required. The responses to this question are shown in Table 15.

Table 15. Responses to Receipt of Not Required Data in Proposals

	Price Analyst	Contracting Officer
Yes	2	2
No	4	4
Total	6	6

The majority of the price analysts felt that all the data was received was used, if not by the price analyst, by Defense Contract Audit Agency (DCAA) in their reviews of

the proposals. A comment repeated by two of the price analysts was their early involvement in the planning stage helped eliminate the problem of excess data being furnished. One price analyst repeated his response to the previous question and stated he usually did not get enough information. Two of the price analysts considered the data received excessive. They stated the effect of adequate competition was not recognized and often excessive data was received. Too often cost analysis is done when price analysis alone would be adequate to determine the reasonableness of the price. One price analyst commented that the trend seems to be to request more data and adding additional requirements to the regulations. The impact, in her opinion, will be that the only difference between certified cost and pricing data and cost and pricing data will be the signature.

The majority of the contracting officers agreed that all the data was used that was received from the contractor. Two of the contracting officers considered some of the data furnished by contractors excessive. Some of the excessive data furnished was a result of contractors sending in data that was not requested and some was a result of getting adequate competition that was not expected in the planning stage. Another Contracting officer feels the excessive data is in direct relationship to the request for proposal instructions. She also agreed

with the price analyst stating people are reluctant to recognize the impact of competition and often performed cost analysis when price analysis would be adequate.

Excessive Data Requested in the Request for <u>Proposal</u>. The final question asked regarding the adequacy of the data received was if excess data is furnished, was it requested in the request for proposal (RFP). This question was not applicable to eight of the individuals since they stated excess data was not received (See Table 15). Their responses are listed as not applicable in Table 16 which reflects the responses to the question.

Table 16. Responses to Whether Data Not Required Was Requested in RFP

	Price Analyst	Contracting Officer
Yes	1	2
No	11	
Not Applicable	4	4
Total	6	6

One price analyst stated that she felt that the data was excessive but due to the FAR requirements to evaluate the proposals for realism, reasonableness, and completeness the data was required. Two of the contracting officers agreed with her position. They felt that the existence of competition is often ignored and too much cost and pricing data is requested in the RFP. Sometimes the existence of adequate price competition is recognized after proposals are received and data that is received in accordance with the RFP becomes excessive after the determination is made that adequate price competition exists and a cost analysis will not be performed. Another price analyst said she often sees excessive data, however, it is the contractor's choice to submit the data and that it is not specifically requested in the RFP. Additionally, contractors often submit excessive data but fail to provide explanations and summaries to identify what the data represents.

<u>Analysis</u>. Table 17 provides a summary of the responses to the questions relating to the adequacy of contractor data received in proposals.

Question	Response	Price Analyst	Contracting Officer	Total
	Yes	1	6	7
Adequate Data Furnished	No	2	0	2
	Sometimes	3	0	3
Excessive Data Furnished	Yes	2	2	4
	No	4	4	8
Excessive Data Requested in RFP	Yes	1	2	3
	No	1	0	1

Table 17.Summary of Responses RegardingAdequacy of Data Received

The majority of the subjects stated that adequate data was furnished to determine the adequacy of the proposed cost. It is important to note the mix of the responses. All of the contracting officers stated the data received was adequate for determining the accuracy of the proposed price, while only one price analyst agreed that the data received was adequate. The remaining price analysts answers were divided between no and sometimes.

The responses to the last two questions reflect that the majority of the subjects feel that the contractors do not provide excessive data. Of the third that stated contractors do submit excessive data, the majority stated that the data was requested in the RFP. Further information reveals that the data, in some cases, becomes excessive only after proposals are received because adequate competition is recognized. More detailed searches for potential suppliers in the planning stages could identify adequate competition prior to issuing the RFP and thus eliminate requesting excessive data.

Suggestions to Improve the Price Analyst's Role in the Source Selection Process. The final section of the interview related to improving the price analyst's role in the source selection process. The subjects were asked if they had any suggestions to improve the price analyst's role.

Responses. Four of the contracting officers stated they had no suggestions. One of the contracting officers added she was not convinced they need price analyst involvement other than to review cost proposals. Also in reviewing the proposals, she stated the price

analysts should be using price analysis instead of cost analysis. Another contracting officer stated that the only function of the price analyst was to evaluate the cost proposals and assure they agree with the technical approach proposed by the contractor.

Two contracting officers had suggestions for improving the price analyst's role. One stated if pricing assistance is to be available then make participation in all aspects of the process mandatory. Additionally, have the person who will perform the price/cost analysis attend all the briefings. He also stated there should be sufficient staffing in the pricing group to provide adequate support. The other contracting officer stated the price analyst's role would be improved if the price analyst were properly trained. She stated increased confidence in the price analyst would be required to improve the interaction between the price analyst and the contracting officer. Her final comment was the price analyst should be required to assist in negotiation of the contract price.

Four of the price analysts stated early involvement would improve their role in the source selection process. The early involvement would serve several purposes. It could eliminate some protests that occur due to cost issues. The price analyst could provide input on what impact the cost issue would have on the source selection. Assistance could also be given eliminating requests for

cost data when adequate price competition exist. Additionally, the price analyst could recommend the submission of cost proposals on a computer disk which would make the pricing evaluations smoother and more efficient. One price analyst stated the use of panels would improve her role. Using panels, including the price analyst, to insure adherence to the regulations at the start of the process could eliminate additional time required at the end of the process to correct errors.

Improved guidance was a suggestion provided by two of the price analysts. One price analyst stated she would like additional guidance regarding the kind of documentation the contracting officers expected for reviews for cost realism and price analysis. Guidance relating to the type and format of the documentation would assist the price analyst. Often price negotiation memorandums are prepared when it seems a memorandum of evaluation would be adequate. The type of documentation requested varies with different contracting officers and price analysts. The price analyst also stated there should be standardization of the data requested from contractors. This would enable the price analyst to perform more accurate reviews since the data would be comparable.

The final suggestion for improving the role of the price analyst was to provide adequate staffing. This issue was also mentioned by one of the contracting officers.

Without adequate staffing, the price analysts are unable to perform effectively.

Analysis. Based on the responses of the subjects, four issues appear to be mentioned most often: early involvement, training, staffing, and guidance. The price analysts feel that early involvement in the process would improve their function. However, as presented earlier in this chapter, early involvement by the price analyst is not considered necessary by the contracting officers. Both contracting officers and price analyst perceive staffing of the pricing function a problem. It is crucial to provide adequate staffing to support the contracting officer. Training is also crucial for both the price analysts and contracting officers especially if there is inadequate staffing for the pricing members. The final suggestion was to increase the guidance for functions performed by the price analyst.

Specific Improvement Areas

After completing the interviews and analyzing the responses, it was observed that the suggestions provided to improve the price analyst's role in the source selection process were vague. Discussions were held with a professional continuing education instructor at the Air Force Institute of Technology (AFIT) to determine specific areas in which the price analyst role could be improved. The instructor provided the training blueprints for the

pricing course taught at AFIT. The blueprints provided guidance regarding pricing issues for the planning stage, the development of the evaluation factors, and the evaluation stage of the source selection process. No guidance was provided on development of the proposal preparation instructions. The information contained in the blueprints is discussed in this section.

<u>Planning Stage</u>. The blueprints outlined several areas concerning pricing that should be considered in the planning stage of the source selection process.

The government estimate should be reviewed during the planning stage. The review should include determining how the estimate was made, learning what assumptions were made, determining what information and tools were used, and determining the origin of the information used. A comparison should be made of how previous estimates related to prices paid. The purpose of the review is to determine how much reliance can be placed on the estimate. (17:1-8)

Market data and acquisition histories should be analyzed for valuable pricing data (17:1-15). Historical data and current market prices are helpful measures of reasonableness when evaluating prices.

A survey of the market should be completed to identify sources for procuring the good or service. The blue prints provide a list of factors that should be considered in researching the market. The list is provided in Figure 9.

MARKET RESEARCH FACTORS
Competitive Conditions
Overall Level of Demand
Trends in Supply and Demand
Trends in Prices
Pricing Strategies
Sources
Product Characteristics
Delivery/Performance Leadtimes
Ownership Costs
Terms and Conditions
Problems
Figure 9. Factors to Consider in Researching the Market

(17:1-38,1-39) Figure 9. Factors to Consider in Researching the Market

The market survey will be used, in part, to determine if adequate price competition exists. The determination will define the type of cost and pricing data that must be requested. A decision must be made whether to request cost and pricing data and if certification is required. Requiring certification depends on:

> Type of contract action Dollars involved Available exemptions Special justifications documented by the contracting officer (17:3-7)

Certified data should not be requested if adequate competition exists (17:3-9).

The type of contract is determined in the planning stage. The contract type selected should suit the risk conditions of the procurement. Areas of risk that should be considered include investment risk, economic risk, and performance risk (17:4-24). Selecting the proper contract type can increase competition by attracting more offerors and can "also motivate the contractor to perform more efficiently by giving the offeror more control over the amount of profit he or she earns" (17:4-26).

Development of the Evaluation Factors. The blueprints details two areas to be considered in determining the price-related factors for award: identifying the best award strategy and identifying applicable factors (17:4-2). These two considerations are for the purposes of "attracting competition and obtaining a fair and reasonable price" (17:4-4).

When more than one item or type of item is being procured, "the number of award possibilities also increases" (17:4-5). Figure 10 shows some options that are available. The most advantageous award strategy should be selected.

OPTIONS

Single Award of All Line Items to One Contractor Multiple Awards for Different Line Items Family or Group Buys Progressive Awards for Portions of Total Line Item Requirement Multiple Awards for the Same Line Item Split Awards Partial Set-Asides

Figure 10. Award Strategy Options (17:4-5)

In determining the price related factors to be included in the solicitation, consideration should be given "all factors that will have a significant, quantifiable affect on the total cost of the acquisition" (17:4-14). Figure 11 provides a list of factors that should be considered.

FACTORS Economic Purchase Quantity Quality-Related Costs Government Furnished Production and Research Property Transportation Costs Options and Multiyear Contracting Life-Cycle Costs Energy Conservation and Efficiency Consideration Lease vs. Purchase Considerations Figure 11. Price-Related Factors (17:4-14)

Evaluation Stage. The guidance relating to the evaluation stage of the source selection process relates to the details of performing cost/price analysis. While price analyst expertise in the area of cost/price analysis is crucial to adequate proposal review, the details of cost/price analysis are beyond the scope of this paper. However, an overview of the guidance is provided to show the types of training a price analyst should obtain. Figure 12 lists comparison bases that are used in performing price analysis. Figure 13 shows techniques that may be used in performing price analysis.

COMPARISON BASES	
Competitive Prices Catalog/Market/Regulated Prices Historical Prices Pricing Yardsticks and Cost Estimating Relationships Government Estimate	
Figure 12. Comparison Bases for Price Analysis (17:6-1)	

TECHNIQUES
Index Numbers
Economic Trend
Price-Volume Analysis
Improvement Curve
Pricing Rules of Thumb and Cost Estimating Relationships
Ratio of Price to Estimated Direct Cost
Figure 13. Price Analysis Techniques (17:7-2)

The blueprints provide a chapter titled <u>Apply Price</u> <u>Related Factors</u> which outlines factors that may impact the evaluation. The factors are identical to the factors listed in Figure 11. It is important to note that these factors must be included in the solicitation to be applicable to a review. For instance, if quality related factors are to be applied, the offerors must be advised that the award "will be based on an evaluation of both price and quality-related factors" (17:5-14).

Summary

This chapter has presented the results of the interview in four sections:

1. Price Analyst Involvement in the Source Selection Process.

2. Additional data or guidance the price analyst could provide to the contracting officer to improve proposals received.

3. Adequacy of the data received in contractor's proposals.

4. Suggestions to improve the price analyst's role in the source selection process.

. . . .

The responses to the interview questions were provided and an analysis performed of the responses.

The price analyst's involvement in the source selection process was discussed in four stages: planning, determining the evaluation factors, preparing the proposal preparation instructions, and proposal evaluation. The price analyst's role was considered by the price analysts interviewed to be limited with the most significant involvement in the evaluation stage. The contracting officers considered the price analyst's role to be significant, also with the most involvement in the evaluation stage. All of the contracting officers judged the current involvement to be adequate, while the price analysts felt the involvement was adequate only in the evaluation phase.

Additional data or guidance the price analyst could provide to the contracting officer to improve proposals received related to contract type, competition, cost versus price analysis, and cost realism.

The data submitted by the contractors was considered adequate, however, several of the price analysts felt the data usually required clarification. Usually only data that was required to determine the adequacy of the proposed price was furnished by the contractors. However, the respondents stated when excessive data was furnished it had been requested by the government.

The respondents stated areas that would improve the price analyst's role in the source selection process were early involvement of the price analyst, additional training, adequate staffing, and more detailed guidance.

The chapter concludes with a review of specific areas that the price analyst could be involved in regarding the source selection process.

This chapter has presented the results of the responses to the interview questions. Chapter V draws conclusions and makes recommendations based on the research and provides topics for future research.

V. <u>Conclusions and Recommendations</u>

Purpose of the Research

The purpose of the research was to determine if the price analyst's role, in the development of evaluation factors and proposal preparation instructions, results in the receipt of efficient contractor proposals and evaluations. The research was limited to source selections at the operational level of contracting. The following investigative questions were asked to determine the answer to the specific problem:

 What is the role of the price analyst in preparing the request for proposal?

2. What additional information could be provided to the contracting officer by the price analyst to ensure essential contractor data is received?

3. To what degree do the cost evaluation factors and the proposal preparation instructions discriminate between proposals?

4. Should changes be made to the price analyst's role in the source selection process?

<u>Overview</u>

Chapter I introduced the research and defined the specific problem. Chapter II presented a literature review of published information on evaluation factors used in the

source selection process and the role of the price analyst. Chapter III outlined the methodology used to perform the research. The methodology included interviews with price analysts and contracting officers who have experience in conducting source selections at the operational level. The results show the price analyst's role does not necessarily lead to efficient contractor proposals and evaluations.

This chapter presents the conclusions from the research, including the results of the investigative questions, provides recommendations to improve the price analyst's role in the source selection process, and suggests areas for further research.

Conclusions

<u>Investigative Question 1</u>. What is the role of the price analyst in preparing the request for proposal (RFP)?

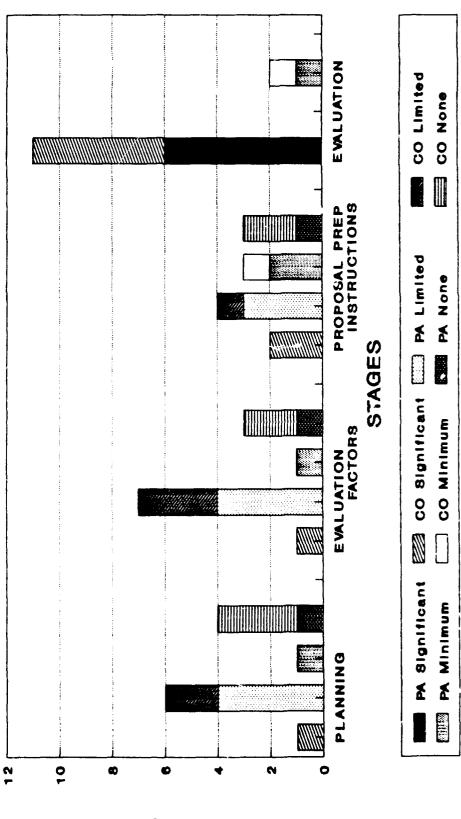
According to the applicable regulations, the price analyst must play a critical role during the preparation of the RFP. However, the field interviews reveal the price analyst plays only a limited role in the preparation process.

Air Force Regulation 70-30 defines the principal objective of a source selection to select "the offeror whose proposal has the highest degree of credibility, and whose performance can best meet the government's requirements at an affordable cost (11:3)." The source

selection process was discussed in depth in Chapter II. Based on that discussion, the price analyst should participate as an active contract team member on the source selection evaluation team (SSET). The contract team also includes the contracting officer and buyer. A primary responsibility of this team is to make a determination on the reasonableness of a proposed price. In addition, the team evaluates all other contracting factors. The price analyst is a specialist regarding the advanced cost and price analysis techniques that are essential to make an efficient evaluation of a proposed price. The results of the contract team's evaluation are furnished to the source selection authority in the final report. Therefore, the price analyst's role on this team should be that of a key player.

Interviews were conducted to determine the actual role of the price analyst in the source selection process. The interviews reflected the price analyst's involvement is significant only in the evaluation stage of the process. The price analyst's involvement is very limited during the following stages: 1) planning; 2) determining the evaluation factors; and 3) developing the proposal preparation instructions. The price analyst's role has become one of an adviser rather than an active team player. Table 18 provides a graphical picture of the responses of the interviews for each phase of the process.

Table 18. Summary of Responses Price Analyst's Involvement



Σ⊃Σωμα

Thus, the first conclusion of this research is that the price analyst does not have a significant function in the RFP preparation process, although the regulations require otherwise.

<u>Investigative Question 2</u>. What additional information could be provided to the contracting officer by the price analyst to ensure essential contractor data is received?

The research has shown that the price analyst could provide additional information to the contracting officer in two areas. The first area is during the planning stage of the source selection. The second area is information that concerns price/cost analysis. The following paragraphs discuss each area.

The literature review revealed that planning is a key factor in the source selection process. The decisions made in the planning stage are the backbone for the successful completion of the source selection process. The planning stage should include an analysis of the pricing aspects of the procurement. The price analyst could assist in exploring these aspects. The aspects include evaluating the market for potential sources, determining the appropriate contract type, assessing the risks involved with the procurement, selecting the pertinent contract clauses, and reviewing the independent cost estimate.

Information regarding price/cost analysis is a second area in which the price analyst could assist the contracting officer. Price or cost analysis must be

performed in every procurement to determine that the price is fair and reasonable. The price analyst could help determine which analysis is appropriate and what data would be required to perform the analysis. Cost realism is a specific review that the price analyst could assist the contracting officer perform.

Early involvement of the price analyst in the source selection process would result in more efficient evaluations. The increased time spent on detailed planning would result in shortening the time spent for the evaluation. The early pricing input would assure that the necessary data had been requested from the contractors, and available for review. Additionally, the price analyst would have a better understanding of the procurement, and provide meaningful information to the contracting officer.

The issues discussed above impact the cost and quality of proposals received from both a contractor and government perspective. Therefore, the second conclusion of this research is that the provision of additional information and guidance by a price analyst early in the process could improve both the quality of proposals received and reduce the evaluation time.

<u>Investigative Question 3</u>. To what degree do the cost evaluation factors and the proposal preparation instructions discriminate between proposals?

The third conclusion of this research is that the cost evaluation factors and the proposal preparation instructions do not discriminate between proposals.

The literature review addressed the fact that the evaluation factors and the proposal preparation instructions are included in the request for proposal (RFP). The instructions regarding the required organization of the proposal are included in Section L of the solicitation. The evaluation factors for award are provided in Section M of the solicitation. The factors included are those used for the evaluation of the proposals and the determination of contract award. The specific factors used are tailored to the particular procurement. However, price or cost is required to be included in every source selection.

The interviews revealed that the price analyst does not play a significant role in the development of the factors, nor in the development of the instructions. These areas are typically developed by the contracting officer. This information was shown in Table 18. The factors and instructions are included in the RFP to guide the contractor in preparing their proposal.

The contracting officers interviewed stated the data received from the contractors in response to the RFP was adequate. However, the majority of the price analysts interviewed stated the data is not always adequate. Since price analysts are specialists in the area of cost and

price analyses, the disparity between the responses of the price analysts and the contracting officers causes concern. The contracting officers did recognize that they have the ability to request additional data or clarification of submitted data from the contractor. In light of this fact, the contracting officers may not see the adequacy of the data submitted in the proposal as an issue that warrants concern.

<u>Investigative Question 4</u>. Should changes be made to the price analyst's role in the source selection process?

The fourth conclusion of the research is that a change in the price analyst's role is necessary. According to the interviews, the price analyst's role is significant only at the evaluation stage of the source selection process. The price analyst is currently playing a passive role in source selection. In order to be effective, the aggressive involvement of price analysts must be pursued. The price analysts should insist that their participation in the procurement consist of early and consistent involvement.

<u>Research Issue</u>. Does the price analyst's role, in development of evaluation factors and proposal preparation instructions, result in the receipt of efficient contractor proposals and evaluations?

The fifth conclusion of the research is that the price analyst's role does not result in the receipt of efficient contractor proposals and evaluations. A gap exists between the role of the price analyst as described in the

regulations and the role described by the field. The regulations advise that the price analyst should play an active role in the source selection process. However, the responses from the interviews indicate that the price analyst is actually playing a passive role.

The price analyst's role in the evaluation of proposals is significant. However, the role in the stages prior to the evaluation is only limited. Since the price analyst's involvement is considered valuable in the evaluation stage, the price analyst should have a direct influence on the creation of the data they are evaluating. This point is further strengthened by the fact the contracting officers stated that the data furnished by the contractor was adequate. This is contrary to statements made by the price analysts that the data is not adequate. Again, the price analyst is a cost/pricing specialist. Their opinion that adequate data is not received should be addressed in the early stages of the source selection process.

The stages prior to the evaluation (planning, determining the evaluation factors, and preparing the proposal preparation instructions) are areas crucial to receiving effective contractor proposals and performing efficient evaluations. The price analyst does not have significant involvement in these areas.

Recommendations for Improvement

Two recommendations are provided here to enhance the price analyst's role in the source selection process. The first recommendation is to improve the contracting community's awareness of the price analyst's role during the process. The second recommendation is to inspire contracting officers and price analysts to aggressively improve the process. Methods that can be used to implement these recommendations are discussed below.

Various forms of education could improve the awareness of the price analyst's role during source selections. Formal class training, informal organizational training, and cross-training are three possible methods. The above education applies to both contracting officers and price analysts. Both groups would specifically benefit from formal training on source selection procedures. This training should concentrate on the procedural guidelines that relate to the steps and reviews required during source selections. Price analysts should be technically trained in the tasks that relate to the source selection. Specific examples of these tasks include market surveys, risk analysis, government estimate validation, determination of contract types, award strategies, cost/price related factors. Technical training should also include techniques to perform cost and price evaluations. The increased technical proficiency would increase the contracting officer's confidence in the price analyst's abilities.

Contracting officers who become more familiar with the skills and abilities of the price analyst will be more likely to utilize their potential. On the other hand, price analysts can complement their cost and pricing skills by becoming more knowledgeable with source selection procedures. Such knowledge will make them acutely aware of the areas that they can provide support to contracting officers.

The second recommendation is to motivate both parties to aggressively improve the process. The specific methods that could be used to provide this motivation have already been discussed. Contracting officers who are more aware of the price analyst's skills and responsibilities would be more agreeable to use them to their fullest potential. The training that would improve this awareness would provide the contracting officers with the motivation to ease their own workload through the use of price analysts. The training would provide the price analyst knowledge of the areas in which they could aggressively pursue active participation.

Cross-training opportunities could also motivate the contracting community to improve the process. The personal incentive of potential career enhancement would function as a motivator to each.

Access to quality personnel resources is quickly becoming the greatest barrier to effectively making these improvements. Manpower reductions are now a reality, and

the Department of Defense (DoD) is forced to do more with less. In order to overcome these difficulties, the DoD must use its present resources to their fullest potential. The early, consistent involvement of the price analyst could result in a more efficient process, and result in reduced evaluation time and effort. This time savings could pay large dividends by freeing up resources that can be concentrated on other valuable efforts.

Recommendations for Further Research

Four suggestions for further research are offered here. The first recommendation is to repeat the methodology used by this researcher at other levels of contracting. Research at the systems or central level would reveal whether similar problems exist at other than the operational level. Such research would be valuable and could provide more justification to revise the role of the price analyst in the entire contracting field.

The second recommendation is to research the effectiveness of source selection compared to other types of procurement at the operational level. The performance of source selections at the operational level requires the devotion of personnel who are limited in number. Research in this area would be valuable since it could measure the perceptions of commanders, and compare the efficiency of source selections to other procurement methods such as sealed bidding.

The third recommendation is to research the potential to standardize the source selection process at the operational level. Since operational contracting is more routine, it is possible that some parts of the RFP could effectively be standardized. Examples of sections that could be standardized include Sections L and M. A detailed evaluation of the source selection documents might reveal a duplication of effort between procurements. If the requirements and evaluation criteria are similar, a great potential might exist to standardize these efforts.

The final recommendation for further research relates to training. Techniques should be explored that will enhance the relationship between the price analyst and the contracting officer. An increased appreciation and understanding of the role and abilities of each position would benefit the teamwork concept in the contracting process.

General Background:	Interview No Date
Name:	
Position:	-
Rank/Grade:	-
MAJCOM:	-
	College elor Degree
Number of Years of Government Service:	<u></u>
Number of Years of Pricing Experience:	
Type of Pricing Currently Performing:	
Extent of Source Selection Pricing Expendicions): Less than 5 5-10 16-20 More that	11-15
Research Questions:	
<pre>1. What is the extent of your overall planning stage of the source selectionSignificantLimitedMinimum</pre>	
2. What is the extent of your involvem the evaluation factors for the request Extensive (Write Evaluations Limited Minor (Review Only) None	for proposal (RFP)?

Appendix A: Interview Questions for Price Analyst

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3. What is the extent of your involvement in preparation of the proposal preparation instructions for the request for proposal (RFP)?

Extensive	(Write	instructions)
Limited		
Minor (Rev	view Onl	ly)
None		

4. What is the extent of your overall involvement in the evaluation stage of the source selection process? ______Significant (Complete Review of Cost Proposals)

Limited (Team Member with little responsibility) Minimum (Questions answered only)

5.	Do you feel your involvement	is adequate?	
	Overall Planning	Yes	No
	Evaluation Factors	Yes	No
	Proposal Instructions	Yes	<u> </u>
	Evaluation	Yes	No

6. If no, what level of involvement do you feel would be adequate?

Overall Planning: Evaluation Factors: Proposal Instructions:

Evaluation:

7. What additional data or guidance could you provide to the contracting officer to improve the proposals received?

8. Is the data received in the proposals adequate for determining the adequacy of the proposed cost? Explain. _____Yes ____No ____Sometimes

9. Do you receive data that is not used, or not required, to determine the adequacy of the cost? If so, what? _____Yes _____No

10. If excess data is furnished, was it requested in the RFP?

____Yes ____No

11. Do you have any suggestions to improve your role in the source selection process?

12. Do you have any additional comments?

General Background:	Interview No Date
Name:	
Position:	-
Rank/Grade:	-
MAJCOM:	-
Highest Education Level: Some High School Some Associate Degree Bache Master's Degree	College elor Degree
Number of Years of Government Service:	
Number of Years of Contracting Experier	nce:
Type of Contracting Currently Performin	ng:
Extent of Source Selection Experience (Less than 55-10 16-20More that	11-15
Research Questions:	
<pre>1. What is the extent of the price and involvement in the planning stage of th process? Significant Limited Minimum</pre>	
2. What is the extent of the price and preparation of the evaluation factors f proposal (RFP)? Extensive (Write Evaluations Limited Minor (Review Only) None	or the request for

Appendix B: Interview Questions for Contracting Officers

3. What is the extent of the price analyst involvement in preparation of the proposal preparation instructions for the request for proposal (RFP)?

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_____Extensive (Write Instructions)
_____Limited
_____Minor (Review Only)
_____None
```

4. What is the extent of the price analyst overall involvement in the evaluation stage of the source selection process?

_____Significant (Complete Review of Cost Proposals) _____Limited (Team Member with little responsibility) _____Minimum (Questions answered only)

5.	Do you feel this involvement	is adequate?	
	Overall Planning	Yes	No
	Evaluation Factors	Yes	No
	Proposal Instructions	Yes	No
	Evaluation	Yes	No

6. If no, what level of involvement do you feel would be adequate?

Overall Planning: Evaluation Factors:

Proposal Instructions:

rioposur instruction

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7. What additional data or guidance could the price analyst provide to you to improve the proposals inclived?

8. Is the data received in the proposals adequate for determining the adequacy of the proposed cost? Explain. Yes _____No _____Sometimes

9. Do you receive data that is not used, or not required, to determine the adequacy of the cost? If so, what? ____Yes ____No

10. If excess data is furnished, was it requested in the RFP?

____Yes ____No

11. Do you have any suggestions to improve the price analyst role in the source selection process?

12. Do you have any additional comments?

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