Ch 9 - Analyzing Indirect Costs

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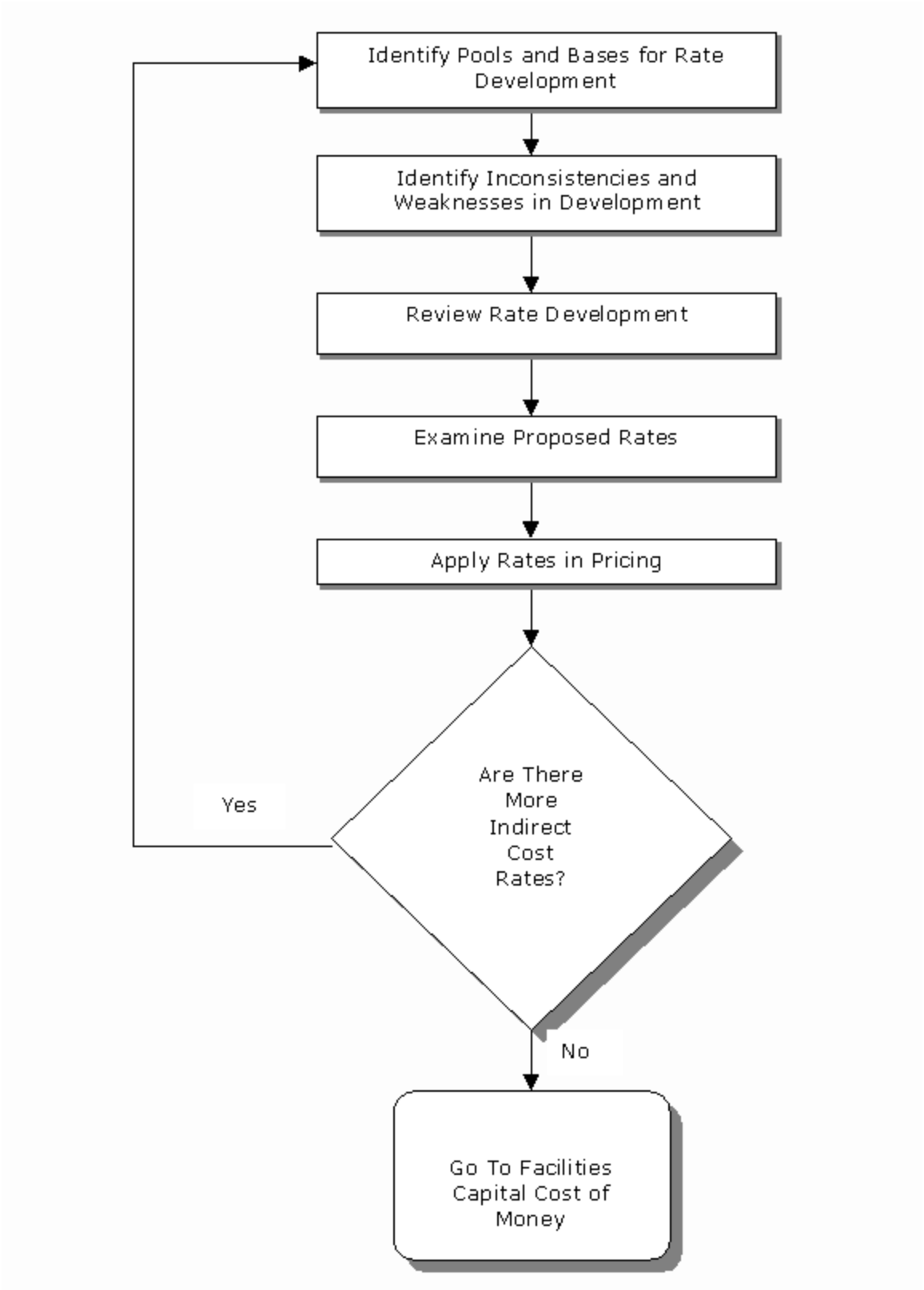
9.0 Chapter Introduction

This chapter identifies points that you should consider as you evaluate the rates used to allocate indirect costs to various cost objectives.

Analysis Responsibility (FAR 15.402(a) and 15.404-2(a)). While indirect costs cannot be directly identified with the production or sale of a particular product, they are necessary costs of doing business. Some portion of indirect cost is properly allocable to each contract that benefits from that cost.

Because indirect costs affect a number of contracts, support from the cognizant auditor and administrative contracting officer (when one is assigned) can be particularly important to your analysis. However, remember that the contracting officer still has the ultimate responsibility for determining contract price reasonableness.

Flowchart of Indirect Cost Analysis. The following flowchart depicts the key events that must be completed as part of a typical indirect cost analysis:


Identify Pools and Bases for Rate Development
Identify Inconsistencies and Weaknesses in Development
Review Rate Development
Examine Proposed Rates
Apply Rates in Pricing
Are There More Indirect Cost Rates?
Yes
No
Go To Facilities Capital Cost of Money

Indirect Cost (FAR 31.202(b) and 31.203). Two types of costs are typically allocated as indirect costs:

- Costs that cannot practically be assigned directly to the production or sale of a particular product. In accounting terms, such costs are not directly identifiable with a specific cost objective.

For example: The firm rents the plant where hundreds of different products are produced. The rent for that plant cannot not be traced to any single product, but none of the products could be made efficiently without the plant. The cost accountants who maintain the general accounting ledgers of the firm support every operation of the firm, but their efforts cannot be traced directly to any single product or contract.

- Direct costs of minor dollar amount may be treated as indirect costs if the accounting treatment is consistently applied and it produces substantially the same results as treating the cost as a direct cost.

For example: There is usually no net benefit to the contractor or the Government in trying to track every single washer or rivet to a single cost objective. The cost of such items, is commonly treated as an indirect cost.

Indirect Cost Importance in Cost Analysis. While indirect costs are an important consideration in the analysis of every cost proposal, the share of cost that they represent will vary from firm to firm and industry to industry. For example, expect indirect costs to represent a larger share of a cost proposal for heavy equipment manufacture than one for contract services. Manufacturing operations typically require substantial investment in plant and equipment --the very type of spending that generally cannot be directly charged to any one product. Services generally do not require a similar level of investment in plant and equipment.

Composition of Indirect Costs. The term "indirect costs" covers a wide variety of cost categories and the costs involved are not all incurred for the same reasons. The number of indirect cost accounts in a single firm can range from one to hundreds. In general, indirect cost accounts fall into two broad categories:

- **Overhead.** These are indirect costs related to support of specific operations. Examples include:
  - Material Overhead;
  - Manufacturing Overhead;
  - Engineering Overhead;
  - Field Service Overhead; and
  - Site Overhead.
- **General and Administrative (G&A) Expenses.** Theses are management, financial, and other expenses related to the general management and administration of the business unit as a whole. To be considered a G&A Expense of a business unit, the expenditure must be incurred by, or allocated to, the general business unit. Examples of G&A Expense include:
  - Salary and other costs of the executive staff of the corporate or home office.
  - Salary and other costs of such staff services as legal, accounting, public relations, and financial offices
  - Selling and marketing expenses

Obtain Necessary Audit and ACO Analysis Support (FAR 15.404-2(c) and 15.407-3). In most cases, the Government auditor and the administrative contracting officer (ACO) are the two Government Acquisition Team members who have the most in-depth knowledge of a firm's indirect costs and indirect cost allocation procedures. The auditor is the only Government Acquisition Team member with general access to the offeror's accounting records. The ACO is responsible for negotiating Forward Pricing Rate Agreements (FPRAs), including indirect cost rate agreements.

9.1 Identifying Pools And Bases For Rate Development

This section identifies points that you should consider as you identify the bases and pools needed to calculate the rates used to allocate indirect costs to various cost objectives.

- 9.1.1 - Identifying Indirect Cost Pools
- 9.1.2 - Identifying Indirect Cost Allocation Bases

Indirect Cost Allocation Rates. Since indirect costs are not directly related to a single cost objective, how do we know when they should be charged to a particular product?

We use indirect cost rates. As a larger share of a contractor's direct effort (e.g., manufacturing) is required to produce a particular product, use of an indirect cost rate will assure that a larger share of the indirect costs that the contractor incurs in support of that direct effort (e.g., costs such as supervision, utilities, and maintenance) is charged to the contract.

Indirect Cost Rate Formula. Indirect cost rates are expressed in terms such as dollars per hour or percentage of cost. Indirect cost rates are calculated for each accounting period by dividing a pool of indirect cost for the period by the allocation base (e.g. direct labor hours or direct labor cost) for the same period.

$$\text{Indirect Cost Rate} = \frac{\text{Indirect Cost Pool}}{\text{Indirect Cost Allocation Base}}$$

Once a rate is established, you can use it to determine the amount of indirect cost that should be allocated to the contract. Simply multiply the rate by the estimated or actual amount of the allocation base in the contract for that period. Contracts with a greater share of the allocation base (e.g., direct labor dollars) will be charged a greater share of the related indirect cost pool (e.g., manufacturing overhead). Contracts with a smaller share of the base will be charged a smaller share of the related indirect cost pool.

9.1.1 Identifying Indirect Cost Pools

Indirect Cost Pool Definition (FAR 31.203(b)). For each indirect cost rate, identify the ***INDIRECT COST POOL.***

$$\text{Indirect Cost Rate} = \frac{\textbf{\textit{INDIRECT COST POOL}}}{\text{Indirect Cost Allocation Base}}$$

An indirect cost pool is a logical grouping of indirect costs with a similar relationship to the cost objectives. For example, engineering overhead pools include indirect costs that are associated with engineering effort. Likewise, manufacturing overhead pools include indirect costs associated with manufacturing effort.

A properly developed indirect cost pool, should permit allocation of the included indirect costs in a manner similar to the allocation that would occur if the firm allocated each indirect cost separately.

For example: The firm could allocate the labor for maintenance of the building housing the firm's engineers and the electricity for the same building using two different indirect cost rates. Logically, both would be allocated based on the use of engineering services. Since both would use the same or similar allocation base, combining them into a pool (along with other engineering-related indirect costs) simplifies and clarifies the allocation process.

Primary Indirect Cost PoolsI. The indirect cost pools used to make the final allocation of indirect costs to cost objectives are known as primary pools. The table on the next page lists some of the more common primary pools and types of costs often found in each pool. A typical cost identified in the table with a particular pool (e.g., inbound transportation is identified with material overhead) could be:

- Combined with the related indirect costs into a single indirect cost pool (e.g., a single material overhead pool);
- Combined with some of the related indirect costs into one of several related indirect cost pools (e.g., indirect labor could be combined with one or two related expenses into a single pool).
- Allocated individually.

Remember, every firm's accounting system is different. The examples in the table are only typical; do not regard them as the only correct way to group costs.

Common Primary Cost Pools and Typical Costs Found in Each	
Common Pools	**Typical Costs Found in the Pool**
Material Overhead	• Acquisition (Purchasing) • Inbound transportation • Indirect labor • Employee related expenses (shift & overtime premiums, employee taxes,

	fringe benefits) • Receiving and inspection • Material handling and storage • Vendor quality assurance • Scrap sales credits • Inventory adjustments
Operations Overhead (e.g., Manufacturing, Engineering, Field Service, and Site Operations)	• Indirect labor and supervision • Perishable tooling (primarily in manufacturing overhead) • Employees related expenses (shift & overtime premiums, employee taxes, fringe benefits) • Indirect material & supplies (small tools, grinding wheels, lubricating oils) • Fixed charges (e.g., depreciation, insurance, rent, property taxes) • Downtime of direct employees (training, vacation pay, regular pay) when not working on a specific contract/job
General & Administrative Expense	• General & executive office • Staff services (legal, accounting, public relations, financial) • Selling and marketing • Corporate or home office • Independent research and development (IR&D) • Bid and proposal (B&P) • Other miscellaneous activities related to overall business operation

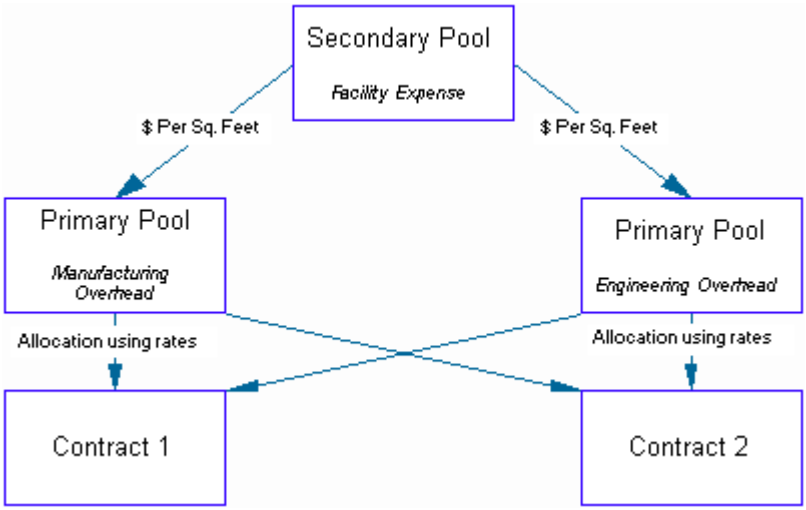
Secondary Indirect Cost Pools. A secondary pool is an intermediate pool that is used to allocate costs to primary pools.

Some indirect costs obviously belong to one specific primary pool. For example, the salary of a manufacturing manager would logically be charged as part of a manufacturing overhead pool. The company president's salary would be part of the general and administrative cost pool. These costs therefore would appear only in the appropriate primary pool.

The proper account for other indirect costs may not be so obvious. For example, a building is shared by manufacturing and engineering. Should facility expenses (e.g., building depreciation, utilities, and maintenance) be charged to engineering or manufacturing? The answer is that both should share the cost based on a causal or beneficial relationship with the cost involved. For example, facilities expenses could be allocated based on the share of available floor space occupied.

A reasonable share of each cost could be separately allocated to the appropriate primary pool, or the related costs could be grouped and allocated together. If the costs are grouped for allocation, the cost grouping is known as a secondary pool.

The figure below depicts the allocation of the expenses related to a shared facility based on the number of square feet occupied by each occupant. If engineering occupies 60 percent of the building, 60 percent of the facility-related expenses will be allocated to the engineering overhead pool. Forty percent will be allocated to the manufacturing overhead pool.



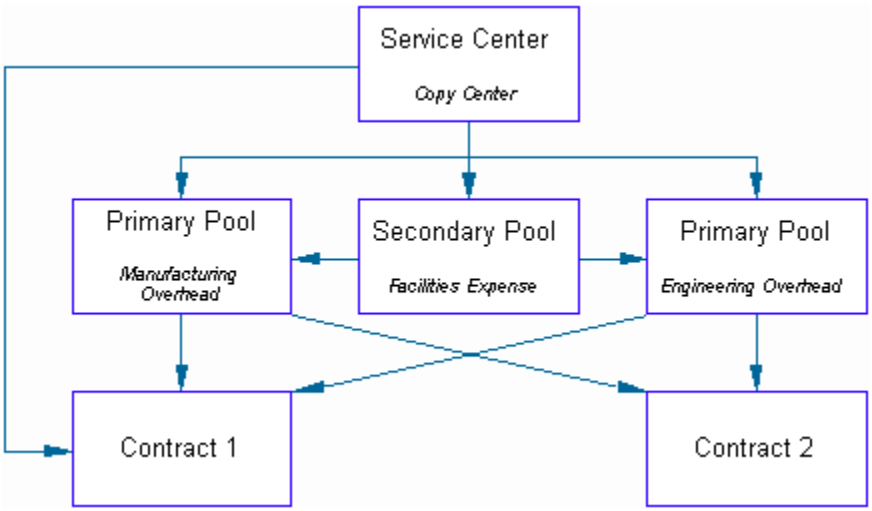
Service Centers. Service centers are unique in that they include costs that can be allocated as a direct cost or an indirect cost depending on the particular circumstances. Primary allocation concerns include identification of:

- The user of the service and

- The purpose of that use.

For example: The cost of a copy center are allocated based on the number of copies reproduced.

- A copy of a manufacturing drawing might be charged to manufacturing overhead.
- A copy of an engineering report might be charged to engineering overhead.
- A copy of the facility manager's weekly calendar might be charged to the facilities secondary pool.
- A deliverable copy of a research report prepared for the Government might be charged as a direct cost.



Remember that the firm must clearly define how service center costs will be allocated. Definition of the circumstances related to each different type of accounting treatment is particularly important. Clear definition will help avoid erroneous double charges that occur when the firm charges a service center cost as a direct cost while charging the same or similar cost as an indirect cost.

Service Center Examples	
• Copy center • Business data processing • Photographic services • Reproduction services • Art services	• Communication services • Facility services • Motor pool services • Company aircraft services • Wind tunnels

• Technical data processing services	• Scientific computer operations

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9.1.2 Identifying Indirect Cost Allocation Bases

Indirect Cost Allocation Base Definition (FAR 31.203(b)). For each indirect cost rate, identify the ***INDIRECT COST ALLOCATION BASE.***

$$\text{Indirect Cost Rate} = \frac{\text{Indirect Cost Pool}}{\textbf{\textit{INDIRECT COST ALLOCATION BASE}}}$$

An indirect cost allocation base is some measure of direct contractor effort that can be used to allocate pool costs based on benefits accrued by the several cost objectives. Examples of typical bases:

- Direct labor hours;
- Direct labor dollars;
- Number of units produced; and
- Number of machine hours.

The type of base determines whether the indirect cost rate will take the form of a percentage or a dollar rate per unit of measure. The following are some common bases that could be used in manufacturing indirect cost allocation:

$$\text{Dollars per Direct Labor Hour} = \frac{\text{Pool Dollars}}{\text{Direct Labor Hours}}$$

$$\text{Percent of Direct Labor Dollars} = \frac{\text{Pool Dollars}}{\text{Direct Labor Hours}} \times 100$$

$$\text{Dollars per Unit of Production} = \frac{\text{Pool Dollars}}{\text{\# of Production Units}}$$

$$\text{Dollars per Machine Hour} = \frac{\text{Pool Dollars}}{\text{Machine Hours}}$$

Whatever the allocation base, the larger a contract's share of the allocation base for the accounting period, the larger the contract's share of the related indirect cost.

Selecting a Base. When selecting an allocation base for the indirect cost pool, firms consider the type of indirect costs in the pool and whether the base will provide a reasonable representation of the relative consumption of pooled indirect costs by direct cost activities. Each allocation base should be representative of the breadth of activities supported by the pooled indirect costs.

For example: If the firm's manufacturing operation is labor intensive and the pool is predominantly labor related (e.g., supervisory labor and fringe benefit costs) the contractor will probably select a base related to labor effort for allocating manufacturing overhead costs. If the manufacturing operation is automated with little labor effort, the contractor will probably select a base related to the machinery use (e.g., machine hours).

Common Allocation Bases. The following table represents some of the more common bases and the type of pools that they are typically used to allocate:

	Types of Indirect Cost Pools					
Allocation Bases	**Manufacturing**	**Engineering**	**Field Service**	**Material**	**General & Administrative**	**Secondary Pools**
Total Cost Input [1]					·	
Cost of Value-Added [2]					·	
Direct Labor Dollars	·	·	·		·	
Direct Labor Hours	·	·	·		·	
Machine Hours	·					
Units of Product [3]	·					
# of Purchase Orders				·		
Direct Material Cost				·		

Total Payroll Dollars						.
Head Count						.
Square Footage						.

[1] Also referred to as the "Cost of Goods Manufactured" or "Production Cost" during the accounting period. It typically includes all costs except general and administrative expense.

[2] Also referred to as "Conversion Cost." It is the sum of direct labor costs, other direct costs, and associated indirect costs.

[3] Units of Product refers to units of final product produced. It is only an acceptable base when final products are relatively homogeneous and represent a reasonable measure of benefit from the appropriate pool.

9.2 Identifying Rate Inconsistencies Over The Allocation Cycle

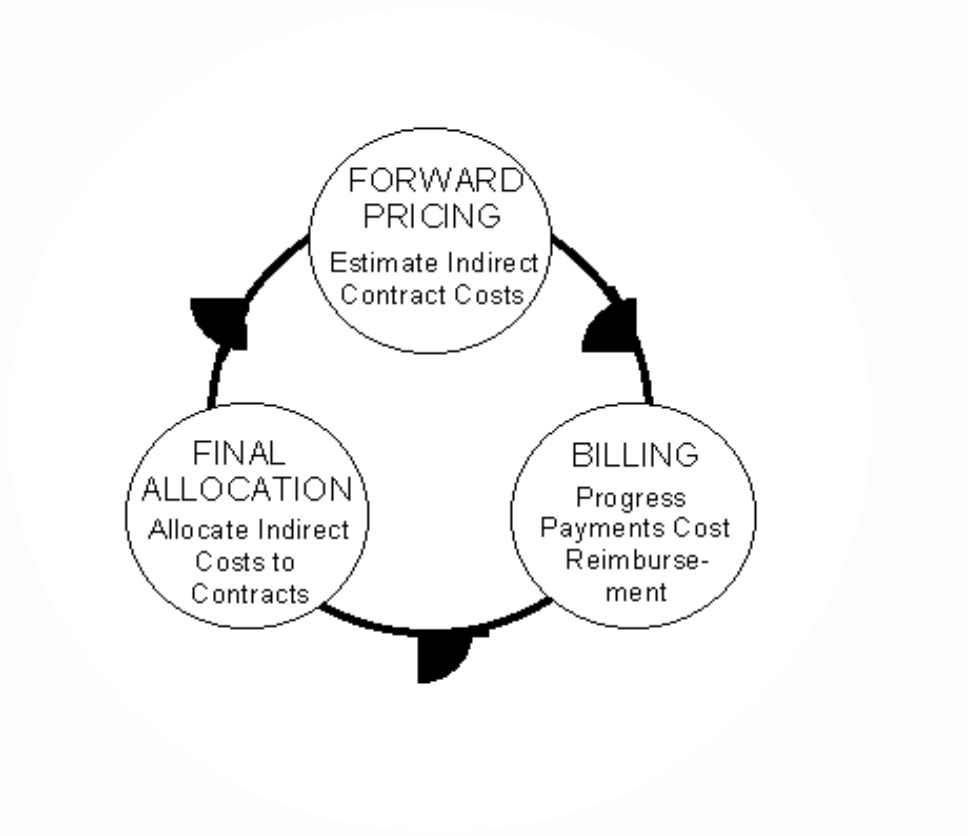
Importance of Accurate Indirect Cost Rate Estimates. Accurate indirect cost rate estimates are essential for effective cost analysis, because actual indirect cost rates will not be known until after the end of the accounting period. By that time, part or all of the contract effort will be complete.

Rate estimates are used for forward pricing, as well as progress payments or cost-reimbursement. You and the contractor may even agree to use estimated quick-closeout indirect cost rates for final pricing of flexibly-priced contracts, before actual rates are known for certain.

Points to Consider. As you review the estimating process used by the contractor in indirect cost rate development:

- Identify apparent rate inconsistencies over the indirect cost allocation cycle.
- Assure that concerns about the inconsistencies are well documented.

Indirect Cost Allocation Cycle (FAR 15.407-3, 42.701, 42.704, and 42.705). Indirect cost allocation typically follows the cycle depicted in the following figure:



- **Forward Pricing.** During this phase, the contractor proposes forward pricing rates and uses those rates in contract proposal pricing. Initial estimates are often developed several years before the accounting period even begins. However, estimates should be updated as more accurate cost data become available. As part of your cost analysis, you must assure that all forward pricing rates used in contract pricing are reasonable.
- **Contract Billing.** When a contract involves progress payments or cost reimbursement, Government personnel must monitor contract billing rates to assure that payments or reimbursements based on those rates are reasonable. During each cost accounting period, rates should become more accurate as more actual cost data become available. The contracting officer or auditor responsible for determining final indirect cost rates is also responsible for determining contract the billing rates.
- **Final Pricing.** After the cost accounting period is completed, contractors can calculate actual indirect cost rates to determine actual contract cost.
  - For contracts that require final pricing (e.g., fixed-price incentive and cost-reimbursement

contracts), the responsible contracting officer or auditor must determine final overhead rates for the contract. This determination will be based on the Government's evaluation of the final overhead rate proposal submitted by the contractor.

- Unfortunately, months or years may be required to complete this process. Under certain conditions set forth in the FAR, you and the contractor may agree to use estimated quick-closeout indirect cost rates for final pricing of flexibly-priced contracts, before actual rates are known for certain (FAR 42.708(a)).

Rates are Part of a Continuing Allocation Cycle. Remember that that forward-pricing rates, billing rates, and final rates are all part of a continuing indirect cost allocation cycle.

- Forward pricing rates will affect budget decisions and the rates used in contract billing.
- Billing rate estimates will affect the need for cost adjustment during final contract pricing.
- Final rates can be used to measure the actual allocation of direct cost to a particular cost objective. In addition, the data used to support final rates will become part of the data available for estimating forward pricing and billing rates for subsequent accounting periods.

Identifying Inconsistencies in Cost Allocation Cycle Information. As you review the estimating process used in rate development, identify any inconsistencies regarding the relationship between the proposed rates and related rates in the indirect cost allocation cycle. Ask questions such as the following:

- ***How does the proposed rate compare with other rates in the indirect cost allocation cycle?***

For example, proposed forward pricing rates and billing rates for the same accounting period should be identical or very similar.

- ***Has rate accuracy consistently improved throughout the allocation cycle?***

The relationship between past forward pricing rates and actual rates should provide information on the firm's past estimating accuracy. Billing rates near the end of the accounting period should be close the actual rates experienced for the period. Quick closeout rates should be comparable to actual rates.

- ***Does the contractor update rate estimates as more information becomes available?***

Indirect cost rates for each accounting period are estimates until actual costs are determined after the end of the period. However, the rates should be updated as more information becomes available.

9.3 Reviewing The Rate Development Process

Points to Consider. As you continue to review the estimating process used by the contractor in indirect cost rate development:

- Identify apparent weaknesses in the indirect cost rate estimating process.
- Assure that concerns about the estimating process are well documented.

Review Information on the Steps Used to Estimate Indirect Cost Rates. Initial indirect cost rate estimates for a particular accounting period are generally developed before the period begins. In fact, contractors pricing long-term contracts are frequently required to forecast rates three to five years into the future. Rate estimates should be updated as more information becomes available, both before and during the accounting period to which the rate applies.

Review information submitted by the offeror regarding the steps used to estimate indirect cost rates for each accounting period. While the exact process will vary from firm to firm, the general process should follow four steps:

- **Estimate Sales Volume for the Period** -- the total goods and services that the firm expects to sell to ALL customers during each forecast period (e.g., fiscal year of the firm).

- **Estimate Indirect Cost Allocation Bases for the Period** -- the measures of direct contractor activity that will be used to allocate pool costs based on the benefits accrued by the several cost objectives. Measures can take the form of dollars, hours, or any other appropriate measure.
- **Estimate Indirect Cost Pools for the Period** -- logical groupings of indirect costs with a similar relationship to the cost objectives.
- **Estimate Indirect Cost Rates for the Period** -- divide each indirect cost pool by the appropriate allocation base.

Review Information on Estimated Sales Volume for the Period. The starting point for any indirect cost rate estimate should be a sales forecast for the accounting period. An accurate estimate of volume is essential to estimating indirect cost rates, because indirect cost pools are typically composed primarily of fixed and semivariable costs. As fixed costs and the fixed component of semivariable costs are spread over more and more direct effort, indirect cost rates will decline. As a result, lower sales volume estimates will result in higher rates, and higher volume estimates will result in lower rates. Logically, contractors normally prefer to conservatively estimate business volume, so as not to under estimate cost. However if the contractor is too conservative, the result may be unreasonably high indirect cost rates.

For a manufacturer, estimators will consider the production and sales for each product line. For services, estimators will consider the number of contracts that the firm expects to be awarded and the effort required to complete each contract. Separate forecasts are developed for each accounting period (normally one year).

As you review the offeror's sales estimate, ask questions such as the following:

- ***Is the sales forecast used for estimating indirect cost rates based on the best information available?***

Estimates made prior to the beginning of the accounting period may be based on relatively speculative data. However, estimates should become firmer as more detailed plans are formulated for the period. Estimates should

become firmer still as actual sales data for the period become available.

- ***Does the sales forecast consider all work likely to benefit from the indirect cost pool?***

To produce accurate rates, forecasts **must** include **all** work projected to benefit from the indirect cost pool during the accounting period. Estimates should include all work that is on contract, options that may be exercised, proposals with a high probability of success, solicitations in hand, and other anticipated customer requirements.

Review Information on Estimated Indirect Cost Allocation Bases for the Period (FAR Table 15-2 and DFARS 215.407-5-70).

Next, the firm should translate the sales volume forecast into production or contract performance schedules. Given the projected schedules, the estimator can forecast total direct effort associated with operations during each forecast period. Estimates of the direct effort will include estimates of the direct labor and material requirements for the period and the allocation base for each indirect cost rate.

For cost or pricing data submissions, FAR Table 15-2 requires that the proposal state how the offeror computed and applied indirect costs, including cost breakdowns, and showing trends and budget data, to provide a basis for evaluating the reasonableness of proposed rates.

That information should include:

- An estimate of the size of the allocation base.
- An explanation of how the allocation base was estimated.
- The date that the allocation base estimate was developed.
- Data on the historical trends in the allocation base.
- An explanation of any significant differences between the historical, proposed, and budgeted dollar values of the allocation base.

As you review the contractor's indirect cost allocation base estimate, ask questions such as the following:

- ***What is the relationship between the estimated indirect cost allocation base and the estimated sales volume?***

Make sure that you understand the relationship as described by the contractor. Document any unexplained differences between the relationship described by the contractor and observed historical relationships for further analysis.

- ***Are there any differences between the proposed indirect cost allocation base and related budget estimates?***

Many times the estimated indirect cost allocation base is different than the internal budget for the same category of cost. The firm may state that it wants to challenge managers and hold the difference in reserve. Make sure that you understand the contractor's rationale, as well as the realism of any differences between current estimates and historical trends.

- ***Have past differences between allocation base estimates and actual allocation bases for the same period been adequately explained?***

Look for patterns such as consistent underestimation of the allocation base.

- ***Are the data used to develop the allocation base estimates accurate, complete, and current?***

By law, all cost or pricing data must be accurate, complete, and current. Information other than cost or pricing data should also be up to date. In particular, you should carefully review any allocation base involved in any allegations of defective pricing.

- ***Did the cognizant auditor or administrative contracting officer question any of the indirect cost allocation base estimates prepared by the contractor?***

Because indirect cost pools apply across a broad spectrum of contracts, the cognizant auditor and administrative contracting officer (when one is assigned) are normally most familiar with the factors affecting estimates.

Review Information on Estimated Indirect Cost Pools for the Period. Given the estimated volume of work to be performed, the firm should next estimate the likely size of each indirect cost pool. As described above, indirect cost pools are typically composed primarily of fixed and semivariable costs. As volume increases, variable indirect costs will increase. However, the indirect cost rate will normally decrease because the fixed portion of the pool will be spread over a larger volume.

As with the allocation base, the offeror must provide adequate supporting documentation. That documentation should include the following information:

- The estimated dollar value of the pool.
- An explanation of how the pool was estimated.
- The date that the pool estimate was developed.
- Data on historical trends in the pool.
- An explanation of any significant differences between the historical, proposed, and budgeted dollar values of the pool.

As you review the contractor's indirect cost pool estimate, ask questions such as the following:

- ***What is the relationship between the estimated indirect cost pool and the estimated sales volume?***

Make sure that you understand the relationship as described by the contractor. Document any unexplained differences between the relationship described by the contractor and observed historical relationships for further analysis.

- ***What is the relationship between the estimated indirect cost pool and the estimated allocation base?***

Make sure that you understand the historical trends in the relationship between the indirect cost allocation base and the indirect cost pool. You can use this relationship to identify significant changes in the estimated rate structure. Document any unexplained differences between the historical relationship and the proposed rates for further analysis.

- ***Are there any differences between the proposed indirect cost pool and related budget estimates?***

Make sure that you understand the contractor's rationale, as well as the realism of any differences between current estimates and historical trends.

- ***Have past differences between indirect cost pool estimates and actual pools for the same period been adequately explained?***

Look for patterns such as consistent overestimation of the pool. Document any unexplained differences for further analysis.

- ***Are the data used to develop the indirect cost pool estimates accurate, complete, and current?***

By law, all cost or pricing data must be accurate, complete, and current. Information other than cost or pricing data should also be up to date. In particular, you should carefully review any allocation base involved in any allegations of defective pricing.

- ***Did the cognizant auditor or administrative contracting officer question any of the indirect cost pool estimates prepared by the contractor?***

Because indirect cost pools apply across a broad spectrum of contracts, the cognizant auditor and administrative contracting officer (when one is assigned) are normally most familiar with the factors affecting estimates.

Review Information on Indirect Cost Rate Estimates for the Period. When the indirect cost allocation base and the indirect cost pool estimates have been completed, the only task remaining is to divide the estimated pool by the estimated allocation base to establish the indirect cost rate.

The table below presents rate forecasts for the next three years. Note that the base and pool estimates for material, engineering, and manufacturing, become the estimate of total cost input, the base for the G&A expense rate.

3-Year Indirect Cost Rate Estimates			
Estimate	**19X7**	**19X8**	**19X9**
Sales Estimate	1,000 Units	1,500 Units	1,300 Units

Direct Material	$14,145,921	$17,857,300	$14,762,049
Material Overhead	$1,361,000	$1,562,358	$1,564,992
Engineering Direct Labor	$1,582,300	$1,596,105	$1,669,141
Engineering Overhead	$1,023,500	$1,002,525	$1,060,045
Manufacturing Direct Labor	$1,467,200	$1,910,450	$1,811,992
Manufacturing Overhead	$3,679,850	$4,250,150	$4,292,500
Total Cost Input	$23,259,771	$28,178,888	$25,160,719
G&A Expense	$4,426,381	$4,875,614	$4,566,581
Total Cost	$27,686,152	$33,054,502	$29,727,300
Material Overhead Rate (With Direct Material Cost Base)	9.6%	8.7%	10.6 %
Engineering Overhead Rate (With Engineering Direct Labor Cost Base)	64.7%	62.8%	63.5%
Manufacturing Overhead Rate (With Manufacturing Direct Labor Cost Base)	250.8%	222.5%	236.9%
G&A Expense Rate (With Total Cost Input Base)	19.0%	17.3%	18.1%

Normally, you should expect more detail in support of rate calculations. Consider the requirements of FAR Table 15-2 whenever you establish requirements for cost or pricing data or information other than cost or pricing data to support indirect cost rates.

Note that the 19X7 Manufacturing Overhead and G&A Expense examples on the following pages provide a breakdown of both the indirect cost allocation base and the indirect cost pool, including historical data to facilitate trend analysis. Any contractor should be able to provide you with this level of data along with detailed rationale for rate projections. Most contractors will provide you with substantially more detailed data. Assure that any data submitted meets solicitation/contract requirements.

As you review the contractor's rate calculation and the overall data submission, ask questions such as the following:

- ***Has the contractor's estimating system been disapproved by the Government?***

An inadequate estimating system increases the risk that the system will not provide an adequate cost estimate.

- ***Does the overall data submission comply with the requirements of FAR and the solicitation?***

Any data submission that does not meet FAR or solicitation/contract requirements deserves special attention during cost analysis.

Manufacturing Overhead Rate History and Projection					
	Account Title	**Actual 19X4**	**Actual 19X5**	**Actual 19X6**	**Projected 19X7**
Pool	Salaries & Wages				
	Indirect Labor	$1,338,330	$1,236,259	$1,395,245	$1,443,095
	Additional Compensation	$80,302	$75,490	$83,950	$88,000
	Overtime Premium	$13,214	$15,744	$11,296	$14,500
	Sick Leave	$65,575	$64,717	$67,742	$72,130
	Holidays	$79,164	$82,041	$83,006	$86,080
	Suggestion Awards	$310	$450	$423	$500
	Vacations	$140,272	$130,223	$147,891	$153,300
	Personnel Expenses				
	Compensation	$25,545	$24,544	$26,304	$28,500

	Insurance				
	SUTA/FUTA[1]	50,135	$46,762	$52,692	$51,500
	FICA/Medicare	$70,493	$65,990	$73,907	$77,850
	Group Insurance	$153,755	$143,670	$161,401	$169,130
	Travel Expense	$11,393	$9,636	$12,725	$13,900
	Dues & Subscriptions	$175	$175	$175	$175
	Recruiting & Hiring	$897	$431	$574	$250
	Employee Relocation	$4,290	$3,891	$3,562	$4,400
	Employee Pension Fund Salaried Hourly	 $25,174 $62,321	 $25,062 $58,132	$26,350 $65,497	$28,500 $68,700
	Training, Conferences, & Technical Meetings	$418	$407	$539	$457
	Educational Loans & Scholarships	$400	$400	$400	$400
	Supplies & Services				
	General Operating	$495,059	$475,564	$509,839	$525,000
	Maintenance: Building	$9,102	$8,640	$12,318	$15,700
	Stationary, Printing, & Office Supplies	$23,052	$21,530	$24,125	$25,500
	Material O/H on Supplies	$56,566	$49,305	$62,071	$62,500
	Maintenance: Office Equipment	$9,063	6,673	$10,875	$12,000
	Rearranging	$418	$2,128	$3,523	$3,600
	Other	$3,314	$3,198	$2,635	$2,500
	Heat, Light, & Power	$470,946	$446,971	$489,123	$507,200

	Telephone	$32,382	$30,414	$33,874	$35,000
	Fixed Charges				
	Depreciation	$187,118	$178,625	$175,641	$181,850
	Equipment Rental	$7,633	$7,633	$7,633	$7,633
	Total Pool	$3,416,816	$3,214,705	$3,545,336	$3,679,850
Base	Manufacturing Direct Labor Cost				
	Assembly Labor	$934,444	$898,780	$950,432	$999,700
	Fabrication Labor	$233,071	$225,950	$253,999	$258,100
	Inspection Labor	$173,372	$180,928	$203,500	$209,400
	Total Base	$1,340,887	$1,305,658	$1,407,931	$1,467,200
Rate	Manufacturing Overhead Rate	254.8%	246.2%	251.8%	250.8%

[1] SUTA is State Unemployment Tax Allowance. FUTA is Federal Unemployment Tax Allowance.

9.3 Reviewing The Rate Development Process (cont)

General & Administrative Expense Rate History and Projection					
	Account Title	**Actual 19X4**	**Actual 19X5**	**Actual 19X6**	**Projected 19X7**
Pool	Salaries & Wages				
	Indirect Labor	$1,407,100	$1,426,042	$1,458,724	$1,460,500
	Additional Compensation	$125,431	$120,410	$152,691	$155,000
	Overtime Premium	$4,883	-0-	$5,069	$5,000
	Sick Leave	$34,875	$33,262	$32,937	$32,500
	Holidays	$49,962	$49,260	$50,013	$49,500
	Suggestion Awards	$240	$402	$225	$250
	Vacations	$80,637	$79,260	$81,398	$82,525
	Personnel Expenses				
	Compensation Insurance	$1,025	$902	$1,103	$1,200
	SUTA/FUTA	$22,465	$21,526	$23,591	$23,600
	FICA	$31,419	$28,620	$31,519	$32,000
	Group Insurance	$29,008	$28,942	$29,226	$29,300
	Travel	$62,513	$70,001	$64,987	$67,000

Expense				
Dues & Subscriptions	$2,375	$2,210	$2,119	$2,500
Recruiting	$1,378	$902	$1,075	$1,250
Employee Relocation	$566	$2,125	$1,974	$1,500
Employee Pension Fund: Salaried Hourly	$33,097 $17,632	 $31,625 $15,260	 $34,123 $17,956	 $35,000 $18,500
Training, Conferences, & Technical Meetings	$7,003	$8,102	$7,536	$7,500
Courtesy Meal Expense	$6,238	$6,124	$5,436	$7,000
Educational Loans & Scholarships	$1,392	$624	$1,525	$1,500
Supplies				
Operating	$2,010	$1,862	$1,724	$2,000
Maintenance - Building	$411	$4,262	$856	$750
Stationary, Printing, & Office Supplies	$32,515	$27,640	$33,209	$33,500
Postage	$1,651	$2,316	$2,056	$2,100
Material O/H on Supplies	$1,732	$1,710	$1,634	$1,980
Maintenance - Equipment	$938	$950	$983	$1,000
Other	$15,829	$18,216	$16,982	$17,500
Public Utilities				
Telephone	$59,105	$63,142	$61,372	$65,000
Heat, Light, & Power	$237,512	$211,403	$241,298	$245,000
Miscellaneous Income & Expense				
Legal & Auditing	$16,714	$18,260	$10,945	$15,000
Professional Services	$21,197	$24,000	$23,791	$22,500
Patent Expense	$18,466	$17,620	$9,084	$10,000
Public Relations	$12,155	$14,670	$14,172	$15,000
Interdivisional Transfers				
At Cost	($48,243)	-0-	-0-	-0-
Corporate Expense				

	Headquarters	$1,556,956	$1,467,024	$1,673,824	$1,700,000
	Fixed Charges				
	Insurance Property	$9,820	$9,926	$10,930	$11,000
	Insurance Inventories	$4,024	$4,862	$4,543	$4,500
	Franchise Tax	$268,495	$260,126	$246,624	$265,000
	Rent - Equip	$1,426	$1,426	$1,426	$1,426
	Total Pool	$4,131,952	$4,075,014	$4,358,680	$4,426,381
Base	Total Cost Input				
	Engineering Ovhd Expense	$1,025,345	$952,614	$1,153,612	$1,023,500
	Engineering Direct Labor	$1,385,765	$1,446,420	$1,579,595	$1,582,300
	Manufacturing Ovhd Expense	$3,416,816	$3,214,705	$3,545,336	$3,679,850
	Manufacturing Direct Labor	$1,340,887	$1,305,658	$1,407,931	$1,467,200
	Materials Ovhd Expense	$1,234,456	$1,205,621	$1,296,179	$1,361,000
	Direct Materials	$13,056,987	$13,042,160	$13,484,836	$14,145,921
	Total Base	$21,460,256	$21,167,178	$22,467,489	$23,259,771
Rate	G&A Rate	19.3%	19.3%	19.4%	19.0%

9.4 Analyzing Proposed Rates

Caution for Indirect Cost Rate Analysis. When you analyze indirect cost rates, do not fall into the trap of looking at a rate and immediately determining that it is too high or too low without analysis of the indirect cost allocation base and indirect cost pool. A rate of 400 percent can be reasonable and a rate of 10 percent can be unreasonable depending on the type of allocation base, reasonableness of allocation base estimates, types of costs in the pool, reasonableness of the pool cost estimates, and the overall effect on total cost. Also avoid the trap of assuming that a rate for one firm is necessarily a good yardstick for evaluating the rates of other firms in the same industry and/or of the same size.

Steps for Indirect Cost Rate Analysis. There are six general steps that you should follow as you analyze indirect cost rate estimates:

- Develop an analysis plan.

- Identify unallowable costs.
- Analyze the indirect cost allocation base estimate.
- Convert the indirect cost allocation base and the indirect cost pool to constant-year dollars.
- Analyze the base/pool relationship.
- Develop and document your pricing position.

Develop an Analysis Plan (FAR 15.404-2(c)). Develop a plan that tailors your in-depth indirect cost analysis efforts to areas that demonstrate the greatest cost risk to the Government. Unless required by agency or local procedures, the plan need not be in writing, but it should consider the risk to Government in terms of dollars involved and probability that the rates developed by the contractor are reasonable estimates of actual indirect cost rates.

As you prepare your plan, your analysis of risk to the Government should include questions such as the following:

- ***Is there an existing Forward Pricing Rate Agreement (FPRA) or Forward Pricing Rate Recommendation (FPRR)?***

When an administrative contracting officer (ACO) is assigned to the offeror, contact the ACO to determine if there is an FPRA or FPRR in place. If there is, the need for further rate analysis will be greatly reduced (See Section 9.5).

- ***Can you obtain information from a recent indirect cost rate audit?***

Audit information can greatly simplify the process of rate analysis when there is no FPRA or FPRR. However, an audit recommendation does not relieve the contracting officer from the responsibility to evaluate indirect cost rates. Contact the cognizant auditor to obtain information on any indirect cost rate audit performed within the last 12 months. When an audit is available, do not request a new indirect cost rate audit unless the contracting officer considers the previous audit inadequate for pricing the current contract. Reasons for requesting a new audit include:

  - Substantial changes in the offeror's rate structure;
  - Audit-identified weaknesses in the offeror's rate development and tracking procedures;

- Recent changes in the offeror's business volume; or
- Recent changes in the offeror's productions methods.

- ***Did your review of the indirect cost allocation cycle identify any inconsistencies in the relationship between related rates?***

Inconsistencies in the relationship between the proposed rates and related rates in the indirect cost allocation cycle may indicate that the offeror is not properly updating and reevaluating rates throughout the cycle.

- ***Did your review of the indirect cost rate estimating process identify any apparent weaknesses?***

Any apparent weaknesses in the estimating process increases the cost risk to the Government. Normally, you should increase your analysis efforts in any areas with identified weaknesses.

- ***Have the offeror's estimates been accurate in the past?***

Any contractor can incorrectly estimate an indirect cost rate. However, if past rates have been poor estimates of actual indirect costs, the risk to the Government is greater than it is in situations where past estimates have been quite accurate. As you plan, consider both the size and the consistency of the overestimates.

For example: The following table examines the accuracy of historical rate estimates made in the year prior to the rate period:

Year Rate Projection Made	Rate Projected For	Projected Rate	Actual Rate	Subtract Actual Rate From the Projected Rate
19X5	19X6	259.1%	254.8%	4.3%
19X4	19X5	256.3%	251.8%	4.5%
19X3	19X4	260.0%	254.8%	5.2%

Note that the company overestimated this indirect cost rate in every year. The average overestimate was 1.8 percent, calculated as follows:

$$\frac{4.3 + 4.5 + 5.2}{254.8 + 251.8 + 254.8} = \frac{14.0}{761.4} = .018 \text{ (or 1.8 percent)}$$

If all company contracts during those three years were priced using the company estimated rate, customers would have been charged an average of $101.80 for every $100 in actual costs.

- ***How many dollars are at risk?***

Consider the cost of analysis and potential cost savings from the analysis. For example, it would make little sense to invest $30,000 in the analysis of a $20,000 indirect cost estimate.

- ***Does the indirect cost pool include a substantial amount of fixed cost?***

As the percentage of fixed indirect costs increases, the risk associated with inaccurate allocation base estimates also increases. When a relatively high percentage of indirect costs are fixed, the indirect cost rate can change dramatically with any change in the allocation base. When most indirect costs are variable, changes in the allocation base will have a less dramatic affect on

Identify Unallowable Costs (FAR 31.201-6). Costs that are expressly unallowable or mutually agreed to be unallowable must be identified and excluded from any proposal, billing, or claim related to a Government contract. When an unallowable cost is incurred, any cost related to its incidence is also unallowable.

Contractors must identify unallowable indirect costs whenever indirect cost rates are proposed, established, revised, or adjusted. The detail and depth of records required as rate support must be adequate to establish and maintain visibility of the indirect cost.

Proper identification of unallowable indirect costs is essential to assure proper treatment in indirect cost rate analysis:

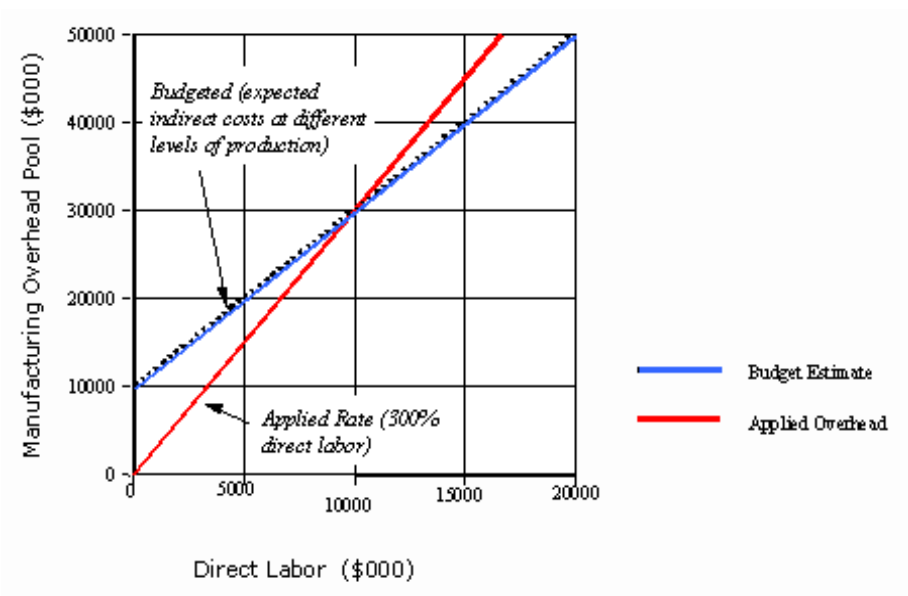
- Unallowable costs must be removed from any indirect cost pool estimate, because Government contracts cannot include unallowable costs.
- When allocation base estimates include unallowable costs, the unallowable costs must be considered in Government rate projections to assure proper allocation of costs across all cost objectives.

Consider the following tests for cost allowability identified in the following table as you perform your analysis (FAR 31.201-2):

Points to Consider When Analyzing Indirect Cost Allowability	
If:	**Then:**
The proposed indirect cost pool dollar amount is not reasonable	Reduce the dollar amount of the indirect cost pool to reflect a more reasonable dollar value for that item.
The proposed cost should have been treated as a direct cost (either against the proposed contract or another contract)	Subtract that cost from the total dollar value of the indirect cost pool, and ensure the cost is directly charged to the proper contract.
The cost belongs in a different indirect cost pool.	Subtract that cost from the proposed indirect cost pool and add it to the dollar value of the correct pool.
The same cost is also represented in another indirect pool, as a direct cost, or as part of an estimating factor (e.g., a packaging or obsolescence factor)	Develop your pricing position recognizing the proposed cost in the area where the cost should be recognized and deleting it in the area where it should not be included in the proposal.
The proposed cost is not properly	Reallocate the cost

allocable, in part or in whole, to the pool under CAS or GAAP	in a manner that is consistent with appropriate CAS or GAAP requirements.
The proposed cost is not allowable, in part or in whole, under the FAR cost principles	Reduce the dollar amount of the indirect cost pool commensurably.
The proposed cost is not allowable, in whole or in part, under the terms and conditions of the contract	

Analyze the Allocation Base Estimate (FAR 31.203(b)). The rate allocation base should be selected so as to permit allocation of the indirect cost pool to the various cost objectives on the basis of benefits accruing to each cost objective. The size of the estimate is important because most indirect cost pools include fixed costs. As the size of the base increases, the rate will decrease because the fixed expenses are being spread over a larger base. As the size of the base decreases, the rate will increase because the fixed expenses are being spread over a smaller base. The result of an inaccurate estimate can be demonstrated through the use of the following figure:



The Applied Overhead line represents the negotiated indirect cost forward pricing rate (300% of direct labor dollars). The Budget Estimate line represents the firm's

forecast of the pool at different levels of production. Note the following characteristics of the two lines:

- The Applied Overhead line passes through the origin, because indirect costs can only be charged if product is produced and sold. (300% of nothing equals nothing.)
- The Budget Estimate line has a positive intercept at $10 million. In other words, Manufacturing Overhead includes $10 million in fixed costs.
- The two lines intersect at the direct labor estimate of $10,000,000 for the year-the point at which a 300% rate would recover the budgeted $30,000,000 in indirect costs.

However, if the base is anything other than $10 million, use of the 300 percent rate will not equal the budgeted indirect cost.

If the base were actually $5 million at the end of the period, the actual indirect cost should be $20 million (according to budget estimates). If indirect costs for all contracts had been estimated using the 300 percent rate, only $15 million would be applied (charged) to the contracts. Indirect cost would be **under-applied** by $5 million ($20 million - $15 million). If the contracts were all firm fixed-price, that $5 million would come out of the contractor's profits.

If the base were actually $15 million at the end of the period, the actual indirect cost should be $40 million (according to budget estimates). If indirect costs for all contracts had been estimated using the 300 percent rate, $45 million would be applied to the contracts. Indirect cost would be **over-applied** by $5 million ($45 million - $40 million). If the contracts were all firm fixed-price, the result would be $5 million in additional profit.

When a contract is performed over several accounting periods, analyze the indirect cost allocation base for each rate for each accounting period covered by the contract. Consider questions such as the following as you conduct your analysis (FAR 31.203(e) and App B, 9904.406-40):

- ***Did the offeror use the correct base period (e.g., one year)?***

The base period for allocating indirect costs is the cost accounting period during which such costs are incurred and accumulated for distribution to work performed during that period. Generally the base period is the contractor's fiscal year. A shorter period may be appropriate:

- For contracts in which performance involves only a minor portion of the fiscal year,
- When it is general practice in the industry to use a shorter period, or
- During a transitional cost accounting period as part of a change in fiscal year.

- ***Does the indirect cost allocation base include all costs associated with that base during the accounting period, whether allowable or not?***

Remember that unallowable costs must be excluded from any proposed indirect cost pool. However, all costs must be included in the base -- even the unallowable costs. For example, unallowable costs must be excluded from a manufacturing overhead pool. However, if manufacturing overhead is part of the allocation base for another indirect cost account (e.g., G&A expense) the unallowable costs must be added back into the base.

- ***Will the base result in a fair allocation of the costs in the indirect cost pool?***

Indirect costs must be accumulated by logical cost groupings with due consideration of the reasons for incurring such costs. The base should be selected so as to permit allocation of the grouping on the basis of benefits accruing to the several cost objectives. For example, if the pool is largely labor related (such as fringe benefits), the base should be a measure of labor effort, such as direct labor hours or dollars. If the pool is largely machinery related (such as depreciation and maintenance), the base should relate to machinery use, such as direct machine hours.

- ***When was the base estimate made?***

If the offeror is estimating a base for the fiscal year, an estimate made mid-way through the fiscal year is likely to be more accurate than an estimate made at the beginning of the year. Likewise, an estimate made for the next fiscal

year should normally be more reliable than an estimate for a period three years in the future.

- ***Does the sales volume used to estimate the allocation base appear reasonable?***

The offeror does not have perfect knowledge of what is going to happen in the future.

  - Estimators must consider more than known sales volume for the period in estimate development. Typically, the offeror will consider the following business forecast elements:
  - Contracts in hand;
  - Options that may be exercised;
  - Proposals with a high probability of success (e.g., final proposal revisions);
  - Solicitations in hand; and
  - Sales forecasts of future customer requirements;
  - Each element of the sales volume forecast should be assigned a probability of actual sale. Contracts in hand would be 100 percent. Other estimates would be assigned a lower "win" probability, based on an analysis of the probability of actually making the sale.
  - If the firm's sales consist of only a few large Government contracts, place less faith in contractor statistical estimates, and more faith on the best expressions of Government plans. When the total business activity of the firm includes a large number of relatively small orders, give greater credence to statistical projections that appear reasonable, given the available data.

- ***Does the allocation base estimate appear reasonable for the projected sales volume?***

Using historical data and other available information, determine if the proposed allocation base appears reasonable for the estimated sales volume. If you have any questions, seek information from the cognizant auditor or ACO.

- ***How stable has the allocation base been over time?***

Particularly with respect to small businesses that are heavily dependent on a few contracts, the base may be quite

unstable. If such a firm loses only one contract, indirect rates on its remaining contracts might skyrocket. That would be particularly significant for proposed cost-reimbursement contracts. You may need to consider contract terms to protect the Government from the risk of unexpected, substantial changes in burden rates.

Convert the Base and Pool to Constant-Year Dollars. To analyze the historical relationship between the indirect cost allocation base and the indirect cost pool, you need to consider the changing value of the dollar. Unfortunately, it may be impossible for you to adjust for inflation when you are performing a summary level analysis, because there is rarely a single price index that you can use to adjust an entire indirect cost pool for inflation/deflation. There are typically too many different types of cost and cost behaviors included in indirect cost pools. For example, during a period of general inflation, depreciation will decline unless the contractor acquires new depreciable assets. The price of gasoline for company cars may rise rapidly as the cost of office supplies is declining.

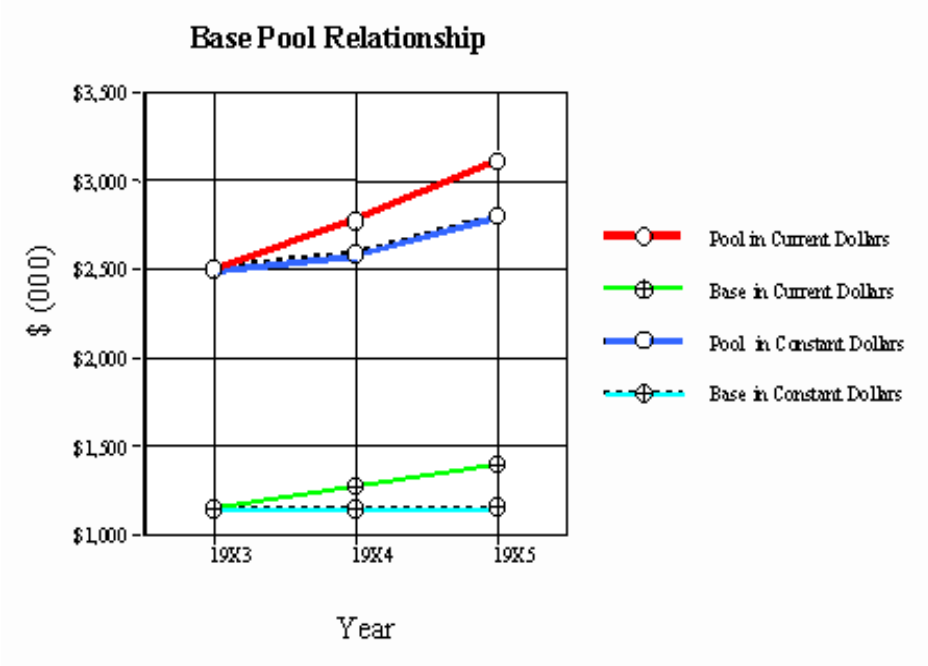
On the other hand, if you are performing a detailed analysis of individual elements of an indirect cost account, you should be able to identify one or more indexes to use in adjusting for the changing value of the dollar. If the contractor has adjusted costs for inflation and the contractor's index number selection is reasonable, use it. If you have any concerns about the contractor's adjustments for inflation, deal with them before proceeding with further analysis.

For example: The following actual costs for 19X3, 19X4, and 19X5 along with projected costs for 19X6 were taken from a contractor's proposal for an indirect pool:

		19X3 (Actual)	**19X4 (Actual)**	**19X5 (Actual)**	**19X6 (Projected)**
Current-Year Dollars	**Pool**	$2,502,490	$2,768,851	$3,110,004	$3,510,141
	Base	$1,154,650	$1,270,115	$1,397,115	$1,536,839
	Rate	216.7%	218.0%	222.6%	228.4%
Constant - Year Dollars (Adjusted	**Pool**	$2,502,490	$2,590,650	$2,799,804	$2,996,000
	Base	$1,154,650	$1,153,900	$1,156,500	$1,155,000
	Rate	216.7%	224.5%	242.1%	259.4%

For Inflation)					

The following graph depicts the data presented in the above table. The solid lines depict independently the base and pool in current-year (unadjusted for inflation) dollars. The dotted lines depict the same information in constant-year (19X3) dollars.

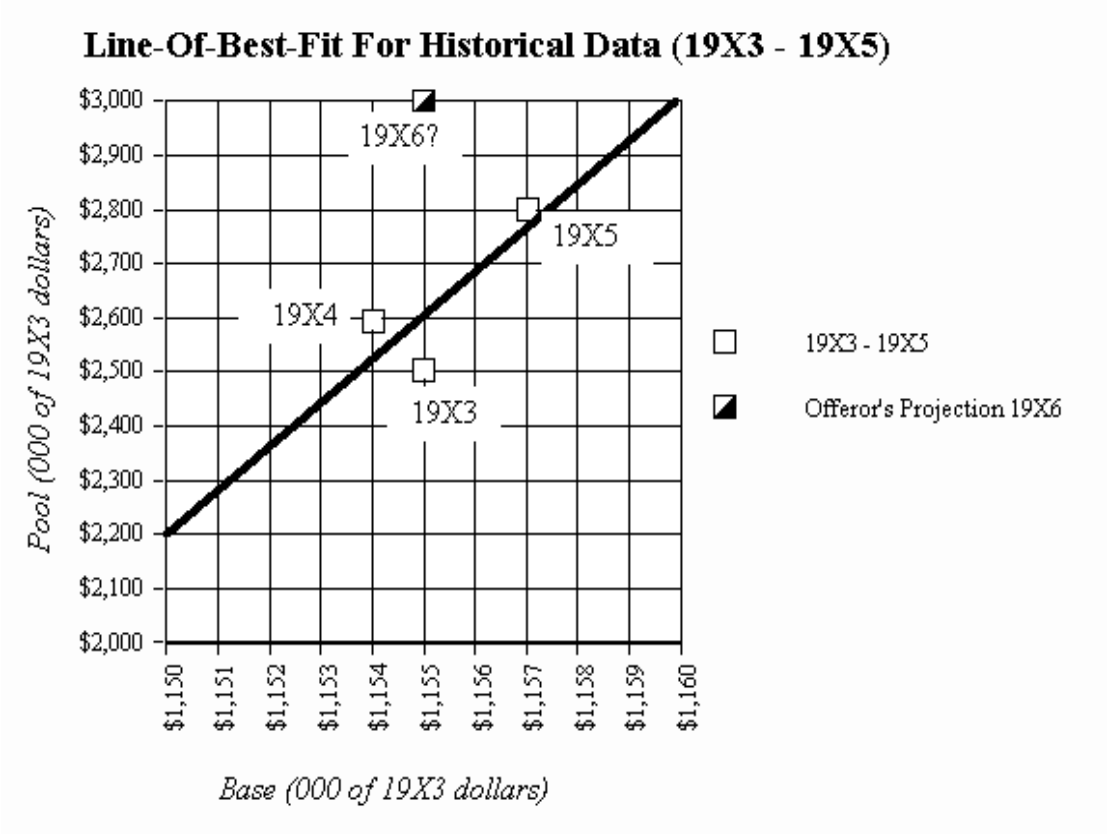


Both the table and the graph show fluctuating base and pool dollars. However, inflation-adjusted data indicate that the inflation-adjusted indirect cost pool is increasing, while the inflation-adjusted allocation base is remaining relatively constant. Based on this analysis, it appears that inflation is masking real substantial growth in the rate.

Analyze the Pool/Base Relationship. Both the allocation base and indirect costs will normally change with increases or decreases in business activity. If you can determine the historic relationship between the allocation base and indirect costs, you can predict what the rate will be at various levels of the allocation base.

If you can use regression analysis to quantify the relationship, you will be able to easily predict the indirect cost pool for any allocation base value.

You can analyze the overall relationship between the allocation base and the indirect cost pool, or examine the relationship between individual indirect cost accounts (e.g., office supplies) and the indirect cost allocation base. The following graph demonstrates application of this technique to the data on constant year dollars from the example on the previous page.



As you review the above graph, note that the proposed rate for 19X6 falls well above the value that you would project based on the historical base/pool relationship. When the contractor's estimate is substantially above or below the line, you should challenge the estimate. If the contractor refuses to change its rate but cannot explain the reasons for the difference, consider performing a more in-depth analysis.

As you examine the base/pool relationship, ask questions such as the following:

- ***Has the composition of the pool or base changed over time?***

Be alert to any changes in the composition of either the base or pool. The offeror may have automated. Automation would increase depreciation expense in the indirect cost pool while decreasing any base related to direct labor. Indirect cost rates could increase while combined direct and indirect costs decline.

- ***Has the indirect cost rate structure changed from the structure used for past contracts?***

A change in rate structure could result in costs being moved from one indirect cost pool to another. If your analysis indicates that changes have taken place ask the offeror for more information on the changes.

- ***Are changes in the rate consistent with the mix of fixed and variable costs in the indirect cost pool?***

If the indirect cost pool is primarily composed of variable costs, the rate should be relatively insensitive to changes in the allocation base that result from changes in sales volume. If the indirect cost pool is primarily composed of fixed costs, the rate should be more sensitive to such changes.

Develop and Document Your Pricing Position. Develop and document your prenegotiation position, using the results of your analysis:

- If you accept the offeror's indirect cost rate estimate, document that acceptance.
- If you do not accept the indirect cost rate estimate, document your concerns with the estimate and develop your own prenegotiation position for costs covered by the estimate.
- If you can identify information that would permit you to perform a more accurate analysis of indirect cost rates, use the available information. Your analysis is not bound by the estimating methods used by the offeror.

9.5 Applying Forward Pricing Rates

Indirect Cost Rates and Forward Pricing. One important use for indirect cost rate estimates is contract forward

pricing. Contract pricing estimates of indirect costs for specific contracts and contract line items are developed by applying the estimated rate to appropriate contract-related base. The indirect cost estimate will depend on both the rate and the size of the base related to contract performance.

Forward Pricing Rates (FAR 15.404-1(c), 15.404-2(a), and FAR 15.404-2(d)). An indirect cost forward pricing rate is a rate that is used in prospective contract pricing. Actually you may encounter several different forward pricing rates as you develop your pricing position.

- **Proposed Forward Pricing Rates.** These are the indirect cost pricing rates proposed by the contractor. Depending on the contractor's participation in negotiated Government contracts, the firm may prepare a separate rate proposal or include all data supporting the proposed rate as part of the contract pricing proposal. These rates are the starting point for indirect cost rate analysis and contract pricing.

- **Audit Recommended Rates.** These are rates developed by Government audit personnel as a result of their review of the contractor's indirect cost rate proposal. The recommendation may result from the audit of the current contract proposal, a recent (within the last 12 months) contract proposal, or a separate indirect cost rate proposal. These are important recommendations, because auditors are the only members of the Government Acquisition Team that have general access to the contractor's accounting records. However, they are recommendations. The contracting officer is still responsible for evaluating contract price reasonableness.

- **Forward Pricing Rate Recommendations.** Forward Pricing Rate Recommendations (FPRRs) are formal rate recommendations developed by the cognizant ACO for all Government buying activities. FPRRs are generally developed with assistance from the cognizant Government auditor.

When a contractor has a high volume of Government pricing actions, ACOs should consider establishing an FPRR:

    - When the contractor refuses to submit a forward pricing rate agreement (FPRA) proposal or enter into and FPRA;
    - During the period between cancellation of one FPRA and the establishment of a replacement FPRA; or
    - During the period between agreement on an FPRA by Government/contractor negotiators and formal execution of the agreement.

Although FPRRs are only recommendations, you should not develop an independent position without first contacting the contract administration office that issued the FPRR. The contract administration office should be able to supply information supporting the reasonableness of the recommended rate. Consider inviting the ACO that issued the FPRR and cognizant auditor to attend negotiations concerning indirect cost rates.

- **Forward Pricing Rate Agreements (FAR 15.407-3).** Negotiating indirect rates tends to be time consuming and contentious. At contractor locations with significant Government business, the cognizant administrative contracting officer (ACO) should attempt to negotiate an FPRA.
    - An FPRA is a formal bilateral agreement that binds the contractor to propose the negotiated rates and the Government to accept them in pricing individual contracts. Each agreement includes provisions for canceling all or a portion of the agreement if circumstances change and the rate(s) are no longer valid representations of future costs.
    - Whenever an offeror is required to submit cost or pricing data, the offeror's proposal must:
    - Describe any FPRA rates used in the proposal; and
    - Identify the latest cost or pricing data already submitted in accordance with the agreement.
    - The ACO is responsible for monitoring the contractor's rates. Therefore, you should direct any questions on FPRA status and acceptability to the ACO. Further, if you believe that the FPRA rates are unreasonable or that work to be performed on the proposed contract will significantly affect the rates, you should notify the ACO immediately and request a rate review.

Rate Application. Once you have determined the rate(s) that you will use in contract pricing, you must apply that rate as part of your cost analysis. Using the contractor proposed rates from Section 9.3, the following table presents a contract cost estimate for 19X7:

Contract Cost Estimate	
Cost Element	**Proposed Cost**
Material Dollars	$200,000
Material Overhead @ 9.6%	$19,200
Engineering Direct Labor	$5,000
Engineering Overhead @ 64.7%	$3,235
Manufacturing Direct Labor	$75,000
Manufacturing Overhead @ 250.8%	$188,100
Total Input Cost	$490,535
G&A Expense @ 19.0%	$93,202
Total Cost	$583,737

The following process was used to develop the contract cost estimate presented above using the proposed 19X7 indirect cost rates:

- Estimate direct material and direct labor costs to perform the proposed contract, using appropriate estimating techniques.
- Multiply the proposed Material Dollar base by the Material Overhead Rate (9.6%), resulting in a contract Material Overhead estimate of $19,200.
- Multiply the proposed Engineering Labor Dollar base by the Engineering Overhead Rate (64.7%), resulting in a contract Manufacturing Overhead estimate of $3,235.
- Multiply the proposed Manufacturing Labor Dollar base by the Manufacturing Overhead Rate (250.8%), resulting in a contract Manufacturing Overhead estimate of $188,100.
- Total the proposed production input costs ($490,535).
- Multiply Total Cost Input by the proposed G&A Expense rate (19.0%), resulting in a contract G&A Expense estimate of $93,202.
- Add the estimated G&A Expense dollars to the Total Cost Input, resulting in a total proposed cost of $583,737.

Caution -- Assure that the Indirect Cost Rate Is Applied to the Appropriate Base

Apply each indirect cost rate to the appropriate allocation base. For example, if the direct labor costs from three departments-machining, fabricating, and assembly - are the base for the manufacturing overhead rate, you must multiply the sum total of **all** machining, fabricating, and assembly direct labor costs by the manufacturing overhead rate to estimate manufacturing overhead dollars.

On the other hand, do not apply the manufacturing overhead rate to cost categories not included in the base. You would not apply manufacturing overhead to field service labor cost if field service labor costs were not part of the allocation base used in developing the rate. **Only apply overhead rates to those elements included in the appropriate indirect cost allocation base.**

Sources of Estimate Differences. Differences between the contractor's estimate of indirect costs and your estimate can come from two sources - rate differences and proposed contract allocation base differences. You need to be aware of the sources of cost differences as you prepare for contract negotiations. Remember that even if you accept the contractor's proposed rate, your indirect cost objective will be lower than the costs proposed, if the base you are using is lower than the contractor's proposed base.