Understanding the Mechanics of FPIF Contracts

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The first part of this article provides an overview of contract types, the major differences between fixed-price and cost reimbursement contracts and the factors affecting contract type selection. The second part of the article builds upon that background information. It provides insight into the mechanics of fixed-price incentive firm target (FPIF) contracts, provides a framework to analyze proposed FPIF contracts and demonstrates how FPIF pricing arrangements can be manipulated to alter the allocation of risk between the government and contractor.

Now that the holidays are around the corner, I suspect many of you are looking forward to special celebrations and parties with family and friends. A few of you may even eat one or two (insert unit of measure here) cookies during the holiday season. Yet, I wonder how many of you would be able to make that special batch of cookies if you were merely given a list of ingredients with no recipe or baking instructions and you had no prior baking experience or training? I suspect a lot of you, including me, would be eating more than our fair share of chocolate chips and store bought cookie dough! Many PTAC counselors are faced with a similar situation when they provide counseling on a new or seldom seen issue or topic. For example, would you know how to structure, evaluate and manipulate the pricing elements in a fixed-price incentive firm target (FPIF) contract to reduce a PTAC client's cost performance risk and enhance their potential profitability if the only guidance you had was the information contained in Federal Acquisition Regulation (FAR) 16.403-1 -- Fixed-Price Incentive (Firm Target)?

16.403-1 -- Fixed-Price Incentive (Firm Target) Contracts.

(a) Description. A fixed-price incentive (firm target) contract specifies a target cost, a target profit, a price ceiling (but not a profit ceiling or floor), and a profit adjustment formula. These elements are all negotiated at the outset. The price ceiling is the maximum that may be paid to the contractor, except for any adjustment under other contract clauses. When the contractor completes performance, the parties negotiate the final cost, and the final price is established by applying the formula. When the final cost is less than the target cost, application of the formula results in a final profit greater than the target profit; conversely, when final cost is more than target cost, application of the formula results in a final profit less than the target profit, or even a net loss. If the final negotiated cost exceeds the price ceiling, the contractor absorbs the difference as a loss. Because the profit varies inversely with the cost, this contract type provides a positive, calculable profit incentive for the contractor to control costs.

Understanding the Mechanics of FPIF Contracts (cont.)

The FAR description of FPIF contracts provides the necessary "ingredients" or pricing elements but does not provide a "recipe" or instructions on how to mix those "ingredients" into a pricing arrangement that properly allocates risk between the contractor and government. Nor does it provide instruction on how to incentivize a contractor's performance. Those decisions and the development of contract pricing arrangements are rightfully left up to the contracting officer's judgment and analysis. Per FAR 16.104(a), there are many factors that the contracting officer should consider in selecting and negotiating the contract type, such as the expected degree of price competition, type and complexity of the requirement, confidence in cost estimates, potential exposure to escalating commodity prices and/or labor rates, and the adequacy of the contractor's accounting system. These factors may vary widely from one acquisition to the next. As such, the use of "cookie cutter" acquisition strategies could be a recipe for disaster.

Why is it important to understand the factors affecting the selection of a contract type?

FAR 16.000 prescribes policies and procedures and provides guidance for selecting a contract type appropriate to the circumstances of the acquisition. The government's objectives are to place as much cost responsibility as reasonable on the contractor, allocate risk reasonably between the government and contractor, and provide the appropriate incentive(s) to motivate successful contract performance. When structuring a contract with multiple incentives, FAR 16.402-4 advises contracting officers to *"motivate the contractor to strive for outstanding results in all incentive areas; and compel trade-off decisions among the incentive areas, consistent with the government's overall objectives for the acquisition."* Additionally, the contracting officer should minimize the contract administration costs to the maximum extent practicable.

Many PTAC counselors know that the level of contracting officers' education, training and experience vary widely. Occasionally, contracting officers select inappropriate or less than ideal contracting methods, contract types and pricing arrangements. This could have a negative impact on:

(1) Competition

(2) Small business participation

(3) A contractor's cash flow and profitability

(4) Compliance, administration and transaction costs

(5) Allocation of risk between the government and contractor

(6) The contractor's motivation, performance risk and willingness to innovate

PTAC counselors that understand the factors affecting contract type selection can use that information to help their PTAC clients influence acquisition strategies via tailored sources sought responses and

during capability briefings. Additionally, this knowledge can be used to help your PTAC client negotiate a more favorable pricing arrangement.

What should you know about contract types used in government contracting?

Before conducting analyses or providing any recommendations, it is recommended that a PTAC counselor understand the following factors associated with the government's proposed contract type. These factors apply to all contract types whether they are fixed price or cost reimbursement contracts.

(1) The risks or cost contingencies that the government wants to mitigate

(2) The criteria for use for the contract type

(3) Typical applications for the contract type

(4) The specific pricing elements associated with the contract type

(5) The contractor's performance obligations under the contract

(6) The incentive structure for the government's cost, schedule, and performance goals

(7) The regulatory and/or agency requirements and limitations associated with the use of the contract type

(8) The relationship and interdependency between the contract type, requirements, performance risk and incentives

(9) Factors affecting contract type selection [FAR 16.104]

The Defense Systems Management College (DSMC) developed a chart that compares the major contract types and provides information related to the first seven factors listed above. Per the following Defense Acquisition University (DAU) website, the current "**Comparison of Major Contract Types Chart**" dated January 2014 *"is based on the information in the Contract Pricing Reference Guides (Volume 4 – Advanced Issues in Contract Pricing, Chapter 1 - Establishing And Monitoring Contract Type), and updated for statutory/regulatory/policy changes and court decisions that have not been included in the Guides. On the reverse side of the Chart is additional information on contract types and incentives used in Defense Systems Management College (DSMC) courses at the Defense Acquisition University (DAU)."* [https://acc.dau.mil/CommunityBrowser.aspx?id=214513&lang=en-US] The *"Comparison of Major Contract Types"* chart can be accessed at the following website: https://goo.gl/Wt42Rv

The author adapted portions of the chart for use in his APTAC 2015 Fall Training Conference presentation titled "Overview of Contract Types and Pricing Arrangements." That presentation is available at http://aptac.mymemberfuse.com/resources2/view/download/id/62358/vid/2

Understanding the Mechanics of FPIF Contracts (cont.)

What are the basic differences between fixed-price and cost reimbursement contracts?

The following chart provides a top-level summary of the major differences between fixed-price contracts and cost reimbursement contracts. The chart notes that the contractor is paid "all allowable costs" under a cost reimbursement contact. The government uses a five-part test to determine the allowability of costs. The costs must be allowable in accordance with FAR Part 31, allocable on either a direct, indirect or general and administrate (G&A) basis, fair and reasonable in accordance with the contract terms and conditions (T&Cs) and in accordance with generally acceptable accounting principles (GAAP) and/or, if applicable, cost accounting standards under FAR Part 30. Pre-contract costs are generally unallowable unless specifically authorized in the contract.

The statutory limits imposed on negotiated fixed fees under a cost plus fixed fee Contract are listed in FAR 15.404-4(c)(1).

	Fixed Price	**Cost Reimbursement**
What's promised	Must deliver acceptable goods & services	Best efforts
Price paid	Fixed or determined by formula	Based upon costs and/or formula
Price ceiling	Limited to buyer liability	No ceiling
What's paid	Final negotiated costs	All allowable costs
Profit	Not Limited	Statutory limit (CPFF only)
When paid	After delivery (Interim payments possible)	As costs are incurred (Bi-weekly vouchers)
Cost Risk		
Contractor	High	Low
Government	Low	High

What is the degree of risk as a function of contract type?

It is important to understand that contract types vary according to the degree and timing of responsibility (risk) assumed by a contractor and the nature of the profit incentive (opportunity). The following chart depicts the assumption of risk for the spectrum of contract types used in government contracting.

**Understanding the Mechanics of FPIF Contracts (cont.)**
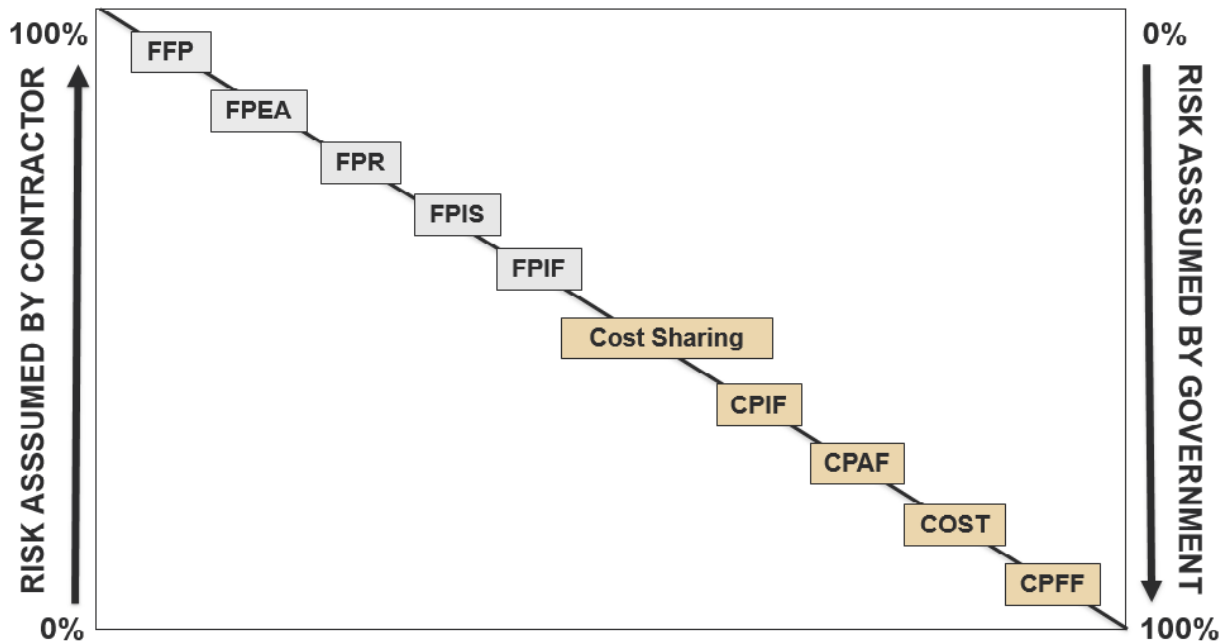
By convention, contracting professionals use share ratios to depict the degree of risk assumed by the government and contractor. The share ratio for firm-fixed price (FFP) contracts is depicted as 0/100. The first number is always the government's percentage of risk and the second number is always the contractor's percentage of risk. The 0/100 share ratio means that the contractor assumes 100 percent of risk under a FFP contract. Conversely, a cost plus fixed fee (CPFF) contract share ratio is depicted as 100/0. Since a CPFF contract requires a contractor's "best efforts" and they get paid the fixed fee regardless of their achievement under the contract, the government assumes 100 percent of the risk.

When the contract type requires a formula to determine the contractor's profit or fee, the share ratio depicts the percentage each party shares in cost underruns and cost overruns from a negotiated target cost. For example, a 60/40 share ratio below (under) the target cost indicates the contractor's profit is increased by forty cents for each dollar under the target cost. The same sharing principle applies in cost overruns. However the government's participation in a cost overrun in a FPIF contract stops at the point of total assumption (PTA). The PTA is the cost point where the (last) cost overrun share ratio changes to 0/100. The following chart provides a simple depiction of how share ratios work in a FPIF contract. Please note that the slopes of share ratios and profit and cost points depicted in this article are approximations. Graphing provides a rough visualization of the pricing arrangement and facilitates analysis of the allocation of risk between the parties. Profit or fee is always depicted on the vertical axis and costs are depicted on the horizontal access. TC, Tπ and CP are the respective acronyms for target cost, target profit and ceiling price. Tπ is used for target profit since TP normally is used to represent the

negotiated target price (target cost plus target profit). The mechanics of FPIF pricing elements and the application of share ratios and the PTA formula will be discussed later in the article.

FPIF

Share Ratio 60/40

PTA*

CP

Cost   TC

Loss Profit Tπ
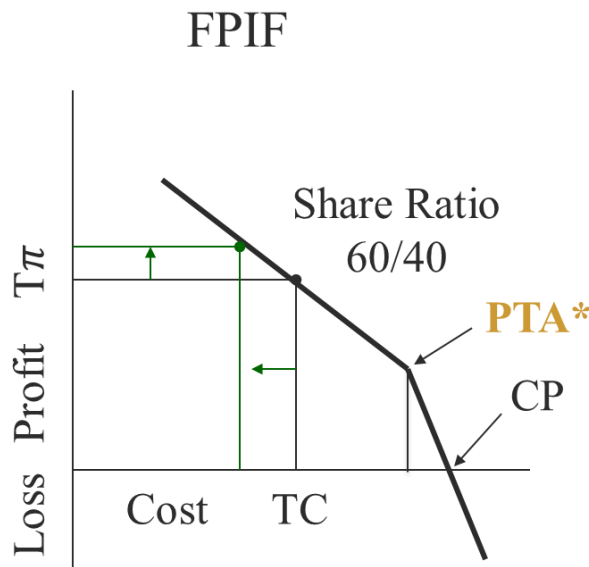
As costs decrease or increase in the Share Ratio range

- Contractor's Profit increases by the share ratio percentage, 40% in this example

- Contractor's Profit decreases by the share ratio up to the Point of Total Assumption (PTA)

* At the PTA, Share Ratio shifts to 0/100 & the Contractor's profit is reduced dollar for dollar up to the Ceiling Price (CP)

Some people mistakenly assume that the contactor earns no profit when the cost overrun reaches the point of total assumption (PTA). As depicted above, that is not the case. The contractor continues to earn profit up to the negotiated ceiling price (CP). The CP is the maximum amount the government will pay under the FPIF contract. At the CP, the contractor's profit is zero. Costs incurred beyond the CP places the contract in a loss position and are borne entirely by the contractor. As such, the most important pricing elements are target cost and ceiling price. These need to be as realistic as possible and should reflect the range of probable costs under the contract.

It should be noted that the FPIF contract depicted above is a relatively simple example. A contracting officer could include a number of different share ratios in the proposed contract. For instance, they could include a 20/80 share ratio for costs under/below the target cost and a 40/60 share ratio for costs above the target cost. Provided the target cost represented the most probable cost of performance, this pricing arrangement would provide greater incentive to the contractor to complete the contract under the target cost since their profit would be increased by 80 cents for each dollar below the target cost. Conversely, their profit would be reduced by 60 cents for each dollar above the target cost up to the PTA.

The following graph depicts the incorporation of different share ratios for below and above the negotiated target cost. Notice the relative steepness of each Share Ratio (S/R) and the resulting impact on how much profit the contractor earns below target cost, above target cost and costs beyond the

point of total assumption. The steepest S/R, 0/100, starts at the PTA. This is the point the government no longer shares in a cost overrun and the contract pricing arrangement turns into a firm-fixed price (FFP) contract. In this example, the cost underrun and cost overrun amounts are approximately equal. However, due to the different share ratios and the corresponding slopes, there is a significant difference in their impact on the contractor's profit. Graphing a pricing arrangement allows you to "visualize" and analyze the profit sharing formulas. When you add actual dollar amounts, you will be able to determine if the pricing arrangement is loose/flat or tight/steep. Those terms refer to the slope of the respective share ratios and how close the ceiling price is to the target cost. For instance, a relatively tight pricing arrangement would have a negotiated ceiling price at 115 percent beyond Target Cost. This type of pricing arrangement would be used when there is greater confidence in the probable costs of performance. Loose pricing would have a negotiated ceiling price significantly beyond target cost. This will be discussed in following sections of the article.
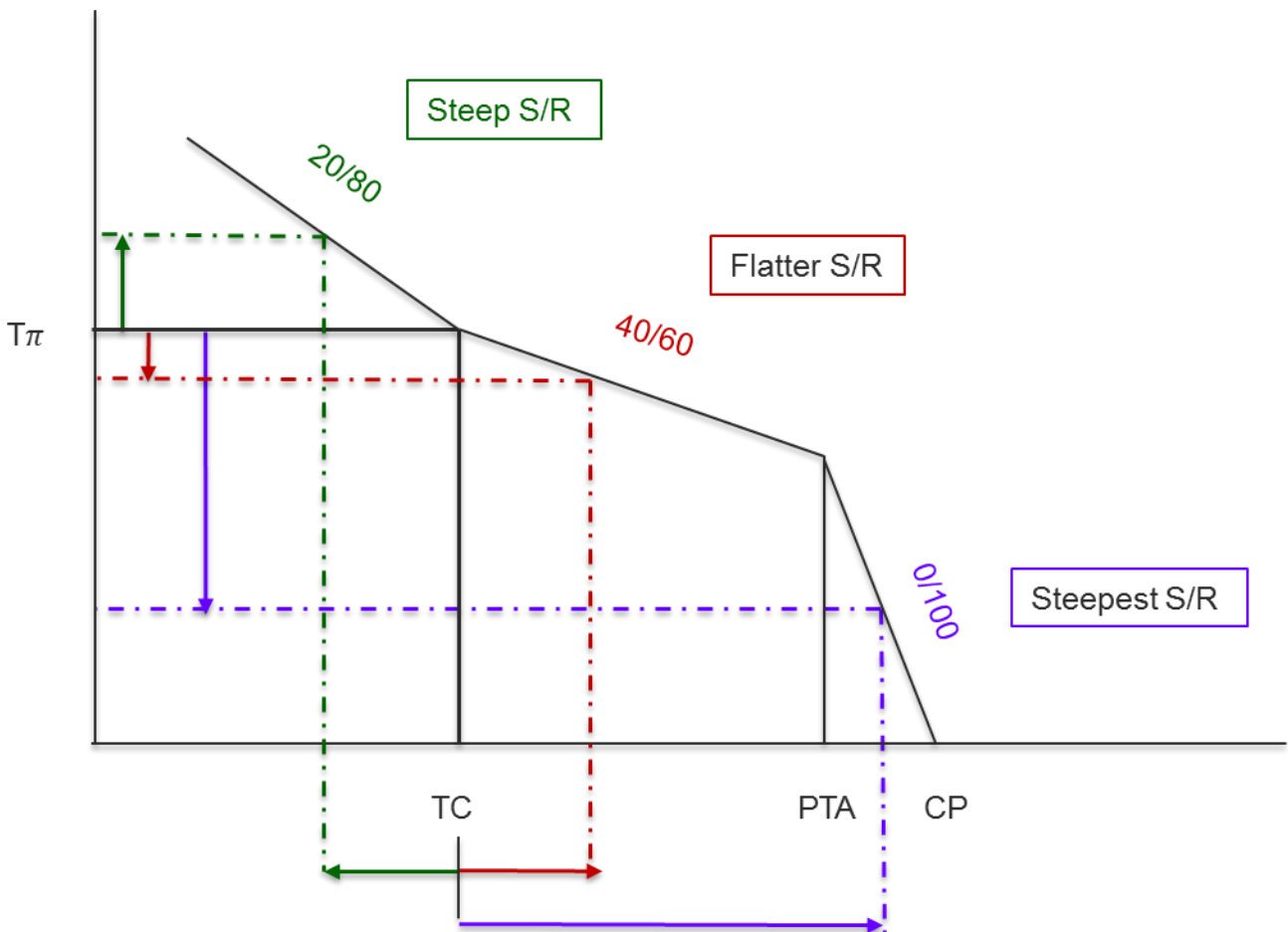
What should you know about FPIF contracts?

Understanding the Mechanics of FPIF Contracts (cont.)

As discussed previously, the author suggested that PTAC counselors understand the proposed contract's typical applications, criteria for use, pricing elements (i.e., target cost, target profit, ceiling price, and profit sharing formula), contactor's obligations and regulatory and practical limitations associated with the use of the contract. Additionally, it is important to understand the principle risks that the contract type attempts to mitigate. The following chart provides a quick summary of FPIF contracts. Although not specifically listed under "pricing elements", the point of total Assumption (PTA) is an important element in the profit sharing formula. The PTA is derived from the following formula: PTA = ((ceiling price – target price/government (overrun) share ratio)) + target cost. As such, it can be manipulated by changing any of the formula's values.

|	Fixed-Price Incentive Firm Target (FPIF)
Principle risk to be mitigated	Moderately uncertain labor or material requirements
Criteria for use	Ceiling price can be established that covers most probable performance risks; profit sharing formula would motivate contractor to control costs and meet other objectives
Pricing elements	Ceiling price; target cost, target price; profit sharing formula; optional delivery, quality or other performance targets
Contractor obligations	Provide acceptable deliverable at time, place specified in contract at or below ceiling price
Contractor incentive(s)	Profit varies inversely with cost performance; earns higher profit by incurring costs below ceiling price and/or meeting other targets
Typical application	New production; production of major weapon system based on a prototype
Principle limitations	Must be justified & negotiated; contractor must have an adequate accounting system; cost data must support targets

[Adapted from the Defense Systems Management College (DSMC) "Comparison of Major Contract Types Chart" dated January 2014]

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Understanding the Mechanics of FPIF Contracts (cont.)

How does the FPIF profit sharing formula work?

It is important to understand that each pricing element in a FPIF pricing arrangement works in concert to define the risk allocation between the government and contractor. Additionally, it is important to remember to establish a reasonable target cost and range of probable costs. It serves no useful purpose for the contracting officer to establish a share ratio for a cost underrun when there is very little probability the contractor will even meet the target cost. Most government program managers prefer establishing a conservative versus aggressive target cost. They do not want to report to their chain of command that their program's major contractor is experiencing a cost overrun. Per the following Defense System Management College (DSMC) chart, "there is a greater probability of a cost overrun during contract performance." Program managers often refer to programmatic risks as "unknown, unknowns" to justify budgets containing funds for contingencies. This same argument can be used during contract negotiations if the contracting officer is attempting to negotiate an unreasonable target cost that is not supported by cost analysis.
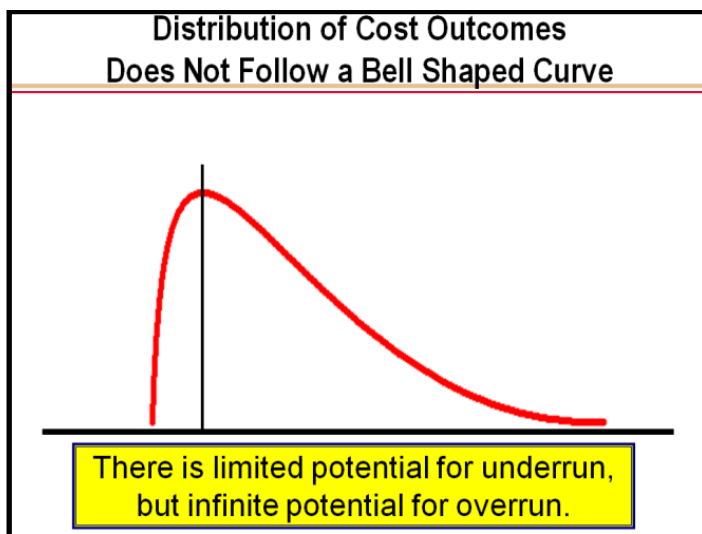
[Defense Systems Management College (DSMC)
"Comparison of Major Contract Types Chart", January 2014]

The best way to see how FPIF contracts work is to provide some examples and different scenarios. For example, assume your PTAC client negotiated the following FPIF contract:

Target Cost (TC)	$2,500,000
Target Profit (Tπ)	$ 200,000
Target Price (TP)	$2,700,000
Ceiling Price (CP)	$2,950,000
Share Ratio above TC	70/30
Share Ratio below TC	40/60

Understanding the Mechanics of FPIF Contracts (cont.)

(1) The contractor has completed performance and the final negotiated cost is $2,700,000. The contactor wants to know what price the government is going to pay his company.

To answer that question, you need to assess if the contractor had a cost underrun or cost overrun. This is an important first step because the FPIF pricing arrangement had different share ratios above and below TC. Remember the TC is negotiated. The government pays the contractor's actual costs plus adjusted profit based upon the sharing formula, provided the total price (actual cost plus adjusted profit) does not exceed the ceiling price. The following shows how to calculate the profit adjustment and determine the total price the government will pay under this scenario.

Target Cost (TC)	2,500,000	
Actual Cost	2,700,000	The contractor had a cost overrun!
Overrun	(200,000)	Amount of cost overrun
Contractor S/R	X .3	Contractor's share of cost overrun (70/30)
Profit Adjustment	(60,000)	Reduce contractor's profit in a cost overrun
Target Profit	200,000	
Profit Adjustment	(60,000)	
Adjusted Profit	140,000	
Plus Actual Costs	2,700,000	
Total Price	2, 840,000	Check to make certain this does not exceed the ceiling price

When calculating a profit adjustment, it is important to use the correct share ratio if there are different share ratios for costs below and above target costs. Also, the share ratio (70/30) actually represents the profit adjustment for each dollar ($0.70/$0.30) above target cost. That is why the profit adjustment formula used .3 vice 30. Although it may seem obvious, it is important to take a big picture view of the contractor's cost performance and then recognize that the contactor's profit is reduced in cost overruns and increased in cost underruns. This helps ensure the profit adjustment is calculated correctly.

(2) Using the same pricing arrangement depicted above, what price would the government pay if the actual costs were $2,950,000?

In this case it is important to review all of the pricing elements in the pricing arrangement. Since the actual costs exceed the ceiling price, the government would pay the negotiated ceiling price amount of $2,900,000.

(3) Where does the point of total assumption (PTA) occur in this pricing arrangement?

You will need to calculate the PTA as follows keeping in mind that you should use the government's share ratio for cost overruns.

PTA = [(ceiling price – target price)/government share ratio] + target cost

PTA = [(2,900,000 – 2,700,000 / .7] + 2,500,000 = $2,785,714 (rounded)

Understanding the Mechanics of FPIF Contracts (cont.)

(4) What is the contractor's profit at PTA?

There are two ways to calculate the profit at PTA. The simple way is to subtract the cost at PTA from the ceiling price.

Ceiling Price – Cost at PTA = Profit at PTA
$2,900,000 - $2,785,714 - $114,286

The other way is to calculate the profit at PTA is to make the PTA cost the "actual cost" and calculate the profit adjustment as follows.

Target Cost (TC)	2,500,000	
Actual Cost	2,785,714	Cost at PTA
Overrun	(285,714)	Amount of cost overrun
Contractor S/R	X .3	Contractor's share of cost overrun (70/30)
Profit Adjustment	(85,714)	Reduce contractor's profit in a cost overrun

|		
Target Profit	200,000	
Profit Adjustment	(85,714)	
Adjusted Profit	114,286	Profit at PTA

5. Diagram this FPIF contract and assess if it is a "loose" or "tight" pricing arrangement.
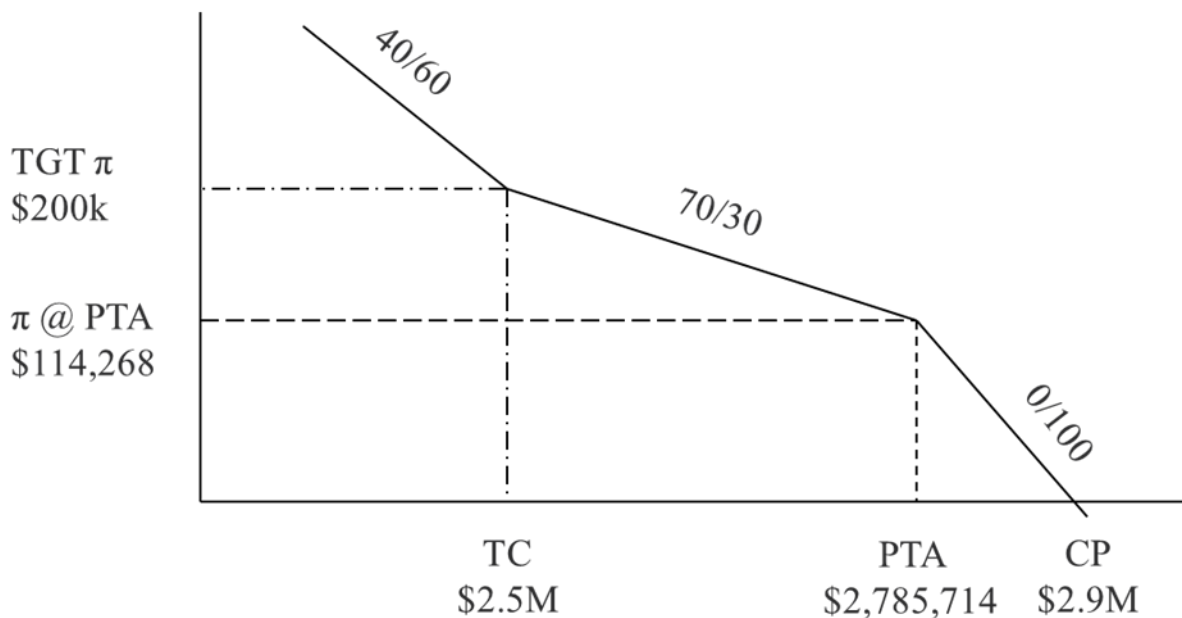
One way to analyze a pricing arrangement is to calculate the PTA and CP's percentage increase above the target cost. When you add those values to the graph, it is easier to assess if the pricing arrangement is "loose" or "tight". In this case, the pricing arrangement is relatively tight since the PTA is 111.4

Understanding the Mechanics of FPIF Contracts (cont.)

percent of the target cost and the ceiling price is 116 percent of the target cost. Under this pricing arrangement the contractor is incentivized to control costs.
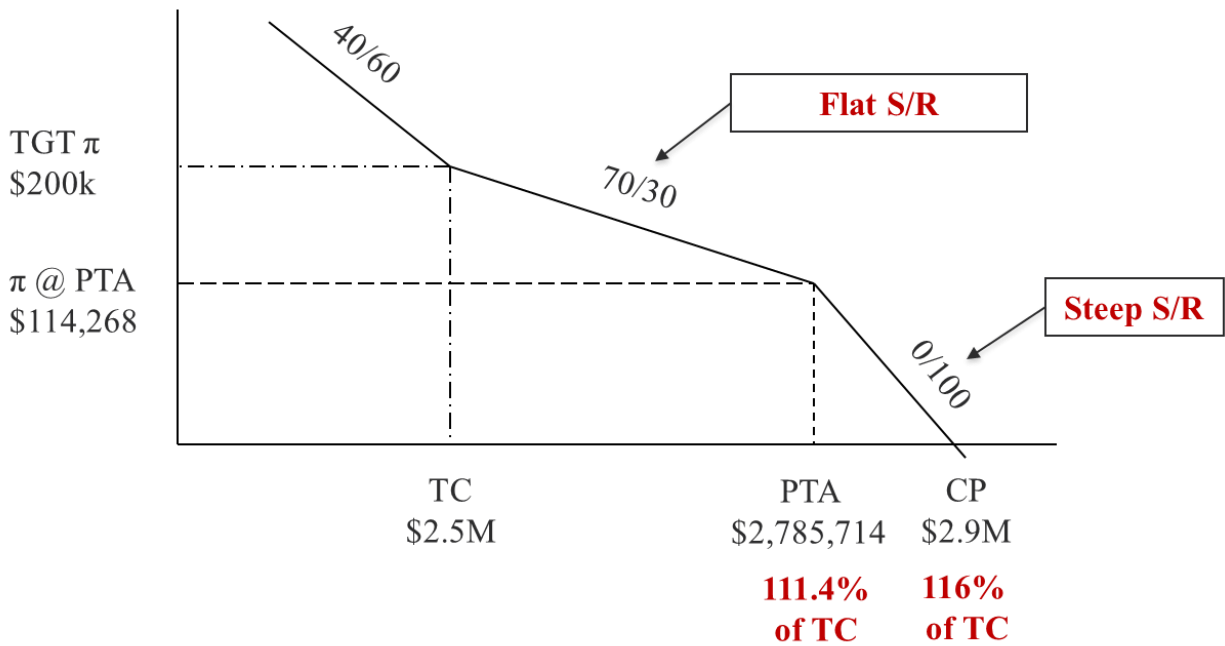
6. Your client has tried unsuccessfully to get the contracting officer to increase the target cost, target profit and ceiling price to reduce his cost risk. Now he wants to know how to move the PTA closer to the ceiling price. What recommendation would you give this client?

It is important to remember that the PTA is derived by the following formula. If the contracting officer will not change the target cost, target profit, and ceiling price, the only other PTA element you could possibly change would be the government's share ratio.

PTA = [(ceiling price – target price)/government share ratio] + target cost

It is counter intuitive, but you would need to shift greater cost responsibility to the contractor and increase the contractor's share ratio percentage. For example, changing the overrun share ratio from 70/30 to 60/40 increases the PTA from $2,785,714 to $2,833,333.

> Original PTA = [(2,900,000 - 2,700,000)/.7] + 2,500,000 = 2,785,714
> Revised PTA = [(2,900,000 - 2,700,000)/.6] + 2,500,000 = 2,833,333

7. Does moving the PTA closer to the ceiling price benefit your client if the expected cost of performance is between the original PTA and the revised PTA? For this scenario, the client is confident he can complete the contract at a cost of $2,800,000.

The first part of your analyses should determine if the projected actual costs will exceed the PTA in one or both scenarios. In this case, the projected actual cost of $2,800,000 exceeds the original PTA of

Understanding the Mechanics of FPIF Contracts (cont.)

$2,785,714 but comes in under the revised PTA of $2,833,333. Clearly, the traditional price adjustment methodology will work in the latter case, but will it work when the (revised) actual cost exceeds the PTA? The following provides two approaches to determine the answer to that question.

Since the share ratio at PTA converts the pricing arrangement into a FFP contract, it should be remembered that the contractor's profit is reduced dollar for dollar at the PTA up to the ceiling price. Since we already have calculated the contactor's profit at PTA to be $114,286, you need to determine the profit adjustment from that point forward. In this case the additional profit reduction is the difference between the (revised) actual costs of $2,800,000 and the cost at PTA, $2,785,714 ($2,800,000 – $2,785,714 = $14,286). The next step is to reduce the contractor's profit at PTA by the dollar for dollar reduction in profit from the PTA to the (revised) actual costs. In this case the contractor earns $100,000 in profit ($114,286 - $14,286 = $100,000).

The second approach uses the previously discussed profit reduction methodology and disregards the fact that the (revised) actual cost exceeds the PTA by $14,286. The following provides a comparison of the two profit reduction methodologies. Please note the methodology depicted in the right column did not use the adjusted profit figure of $110,000 since it would have caused a payment above the ceiling price. In this scenario, the two different methodologies resulted in the same answer. However, please note that the use of the price reduction methodology on the right cannot be used when there are multiple share ratios between the target cost and PTA. In that case you would have to make the profit adjustments for each share ratio segment and then add them to determine the total profit adjustment. Additionally, the methodology on the right may not work when the pricing arrangement is "loose" and the total price paid is less than the ceiling price. Under those situations, it would be prudent to use both methodologies to ensure the correct profit adjustment is made.

	Original S/R			Original S/R
		Target Cost (TC)		2,500,000
Ceiling Price	2,900,000	Revised Actual Cost		2,800,000
Cost at PTA	2,785,714	Overrun		(300,000)
Profit at PTA	114,286	Contractor S/R		0.3
		Profit Adjustment		(90,000)
Revised Actual Cost	2,800,000			
Cost at PTA	2,785,714	Target Profit		200,000
100 % Reduction in Profit	(14,286)	Profit Adjustment		(90,000)
		Adjusted Profit		110,000
Profit at PTA	114,286	Plus Actual Costs		2,800,000
Profit Adjustment past PTA	(14,286)	Price Paid (Ceiling Price)		2,900,000
Revised Profit	100,000	Less Actual Cost		2,800,000
Revised Actual Cost	2,800,000	Profit Earned		100,000
Price Paid	2,900,000	Profit Percentage		3.57%
Profit Percentage	3.57%			

The next step in your analyses is to determine if moving the PTA closer to the ceiling price, by changing the contractor's share ratio from 70/30 to 60/40, is in the contractor's best interests. The following provides a comparison of the contractor's (potential) profits under each pricing methodology.

Understanding the Mechanics of FPIF Contracts (cont.)

	Original S/R	Revised S/R
Target Cost (TC)	2,500,000	2,500,000
Revised Actual Cost	2,800,000	2,800,000
Overrun	(300,000)	(300,000)
Contractor S/R	0.3	0.4
Profit Adjustment	(90,000)	(120,000)
Target Profit	200,000	200,000
Profit Adjustment	(90,000)	(120,000)
Adjusted Profit	110,000	80,000
Plus Actual Costs	2,800,000	2,800,000
Price Paid	2,900,000	2,880,000
Price Paid	2,900,000	2,880,000
Less Actual Cost	2,800,000	2,800,000
Profit Earned	100,000	80,000
Profit Percentage	3.57%	2.86%

Based upon the above analyses, it would be in your client's best interests to use the original pricing arrangement since they would earn $20,000 more in profit. Despite incurring costs beyond the PTA, the lower share ratio of 70/30 between TC and PTA allowed the contractor to generate more profit under the original contract.

7. Other than increasing the target cost, how could you make the original pricing arrangement more favorable to your PTAC client? There are a number of ways you could do that. You could increase the target profit, increase the ceiling price and/or lower the contractor's cost overrun share ratio. These actions would reduce the contractor's cost risk and make the pricing arrangement "looser". The following provides an example with these changes.

Original Pricing Arrangement		**Revised Pricing Arrangement**	
Target Cost (TC)	$2,500,000	Target Cost (TC)	$2,500,000
Target Profit 8%	$ 200,000	Target Profit 12%	$ 300,000
Target Price	$2,700,000	Target Price	$2,800,000
S/R above TC	70/30	S/R above TC	90/10
S/R below TC	40/60	S/R below TC	40/60
CP 116% of TC	$2,900,000	CP 125% of TC	$3,125,000

8. What is the new PTA and contractor's profit at PTA?

PTA = [(Ceiling Price – Target Price)/Government Share Ratio] + Target Cost

Original PTA = [(2,900,000 – 2,700,000) / .7] + 2,500,000 = **$2,785,714**
**Revised PTA = [(3,125,000 – 2,800,000) / .9] + 2,500,000 = $2,861,111**

Original Profit at PTA = CP – PTA; 2,900,000 - 2,785,714 = $114,286
Revised Profit at PTA = CP – PTA; 3,125,000 - 2,861,111 = $263,889

Understanding the Mechanics of FPIF Contracts (cont.)

Since there were a number of changes, it is recommended that you graph and compare both pricing arrangements to facilitate visual analyses of those changes. Changing the original cost overrun share ratio from 70/30 to 90/10, increasing the target price and ceiling price, had a dramatic impact on the pricing arrangement. Visually, you can see a much "flatter" cost overrun share ratio and movement of the PTA and CP to the right of their original values. The revised pricing arrangement is a "looser" contract that favors the contractor. It reduces the contactor's cost performance risk and enables the contractor to earn more profit in a cost overrun situation.
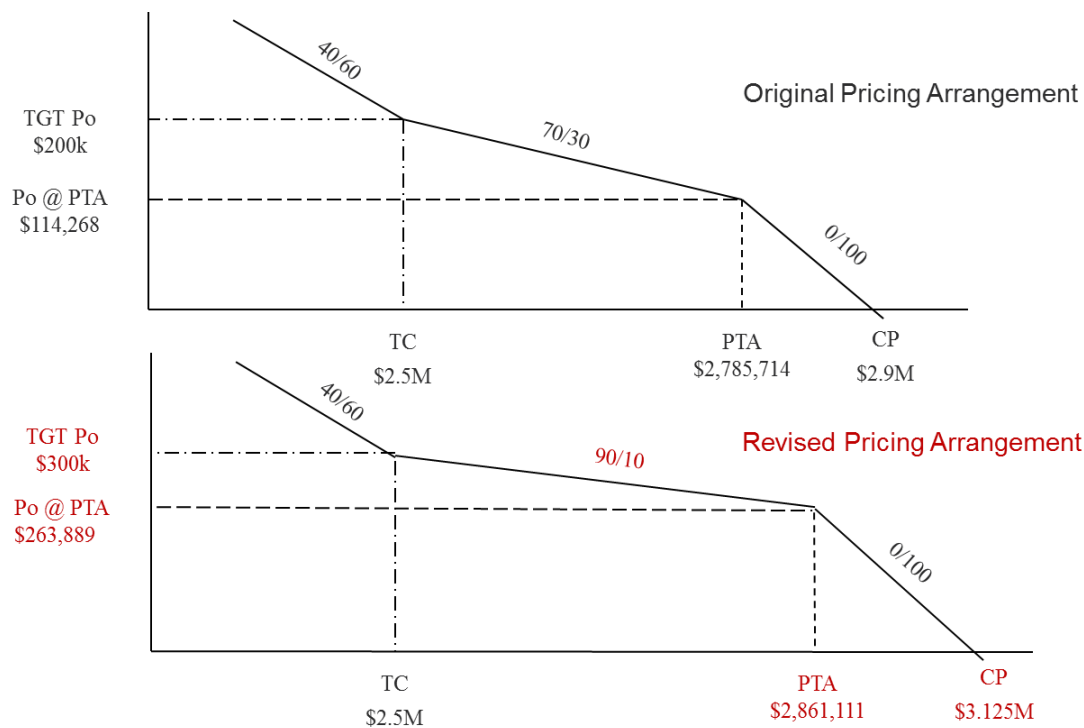
Summary.

This article provided an overview of contract types, the major differences between fixed-price and cost reimbursement contracts and the many factors affecting contract type selection. Additionally, the article provided insight into the mechanics of fixed-price incentive firm (FPIF) contracts. The FPIF contract examples and scenarios provided in the article demonstrated how FPIF contracts could be manipulated to change the risk allocation between the government and contractor.

Knowledge of contract types can be used to help PTAC clients influence acquisition strategies and negotiate more favorable contract types and pricing arrangements.

The author welcomes questions, suggestions, tips and comments about this article. He can be reached at (406) 994-7739 or via email at Jeff.Cuskey@montatna.edu.