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CALCULATING DEFECTIVE PRICING DAMAGES

By David Z. Bodenheimer

Congress enacted the Truth in Negotiations Act based upon a belief that defective pricing had resulted in overpriced defense contracts.[1] In defective pricing litigation, one of the hardest questions is how much is the overpricing—i.e., what are the damages. Computing damages in any litigation often presents real challenges. Defective pricing compounds these difficulties by requiring the judge to bore back in time to the unique context of each price negotiation and distill the precise effect of a nondisclosure of an item of cost or pricing data that the Government negotiator never actually saw. In other words, the judge must ask how the negotiator would have used data that he or she never had the chance to use. In one of the early decisions, the Armed Services Board of Contract Appeals articulated the "speculative" nature of calculating damages in a defective pricing case:[2]

> This case illustrates the considerable amount of speculation that is frequently encountered in considering a so-called defective pricing case, whether the eventual decision is in favor of the contractor or in favor of the Government. However, engaging in a certain amount of speculation is often required if the Board is to reach a conclusion in a defective pricing case as to what the agreed price would have been if the contractor had adequately disclosed the disputed cost and pricing data to the Government. Reaching such a conclusion is necessary because only by reaching

IN BRIEF

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> such a conclusion, despite all the "ifs" and "buts" involved, can the Board in appropriate cases lay a foundation upon which to base a direction to the contracting officer to leave in effect, to change the amount of, or to eliminate a reduction in the contract price previously demanded by the contracting officer, in accordance with the primary objective of the Truth-in-Negotiations Act. Such speculation is necessary because, manifestly, there is no way to know for certain at a later time what might have happened at a substantially earlier time—often some years ago—if conditions had been somewhat different.

The board went on to compare the methodology for measuring damages in a defective pricing case to the process for selecting a winner in a "beauty contest": "The process is less difficult to follow than to describe in words, not too unlike the situation said to exist between the process of selecting the winner of a beauty contest and in the process one used in making such a selection."[3]

These unique and "speculative" challenges for defective pricing damages help to explain several phenomena in the law and litigation of such damages.

(1) *Burden of Proof*. While the Government bears the burden of proving its damages in a specific amount, the courts and boards have presumed a dollar-for-dollar impact due to undisclosed data. If the contractor rebuts this presumption, the Government bears the ultimate burden of proof.

(2) *Undecided Damages*. In the majority of cases, the judge never decides damages. In many cases, no liability exists. In other cases, the judge recognizes some unspecified impact on price but remands to the parties to work out the specific amount.[4] As a result, the law on damages remains much less developed than many other areas of defective pricing.

(3) *Less Complex Damages*. For the cases decided on damages, cases on material costs tend to dominate, perhaps because measuring the difference between a disclosed and undisclosed quote represents relatively straightforward math. Given this emphasis both in the decided cases and in audits performed by the Defense Contract Audit Agency, this history and practice offers pointers to contractors in developing compliance programs. Addressing risks in material cost pricing can significantly reduce the risk of defective pricing.

This BRIEFING PAPER begins with an overview of issues related to the burden of proof in defective pricing cases and then discusses examples of calculations of defective pricing damages, the baseline for defective pricing damages, and factors limiting or mitigating defective pricing damages.

Burden Of Proof

As a linchpin for a price reduction, the Truth in Negotiations Act has always required proof of an "increased" price.[5] In particular, the statute authorizes a price reduction when the negotiated "price was increased because the contractor (or any subcontractor required to make available such a certificate [of cost or pricing data]) submitted defective cost or pricing data."[6] The implementing regulations mirror this statutory requirement for establishing an "increased" price as an element of a defective pricing claim.[7]

■ Government's Burden & Rebuttable Presumption

For damages, the burden of proof rests upon the Government. As the ASBCA has stated, "the

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Government must prove by a preponderance of the evidence that the cost to the [contractor] of a component part was overstated by the [contractor] in a specific amount."[8] In proving damages, the Government has the benefit of a rebuttable presumption that the defective data affected the price dollar-for-dollar. For example, the ASBCA explained in one case:[9]

> In the absence of any more specific evidence tending to show what effect the nondisclosure of the pricing data had on the negotiated target cost, we are of the opinion that we should adopt the natural and probable consequence of the nondisclosure as representing its effect. Theoretically the nondisclosure of pricing data showing a price reduction of $20,746 should have resulted in a reduction in the negotiated target cost of $20,746 for materials cost plus a [general and administrative expense] allowance of 9.23%, making a total of $22,661.

By 1970, the Department of Defense regulations had incorporated this presumption that the defective data affected the price "in the amount" of the defect.[10] The cases have described it as a "presumption that the contract price should be reduced on a dollar-for-dollar basis."[11]

While the Government has the benefit of this presumption, such damages will not be applied mechanically or automatically. For example, in one case, the ASBCA stated:[12]

> The Government has sustained its burden of proving the nondisclosure of the six low quotes, and we have found that a price for 507,670 fuzes computed on the basis of the low quotes would have been $389,281 lower than a price based on the vendor quotations that were in fact disclosed by [the contractor]. It does not necessarily follow, however, that the nondisclosure of such cost and pricing data caused the negotiated price to be increased by $389,281 or any other amount, and the Government has the burden of proving that the nondisclosure caused the negotiated price to be increased and the amount of such increase.

If the Government fails to establish damages with credible evidence in a specific amount, the Government's claim for damages may be denied.[13]

■ Undecided Damages

In most cases, the courts and boards never reach a decision on defective pricing damages. In a significant number of these cases, the judge does not need to decide damages because a finding of no defective pricing renders the issue of damages moot. Even where the contractor is found liable for defective pricing, the court or board of contract appeals frequently remands the case back to the parties to attempt to resolve the amount of the price reduction through negotiations.[14] In some cases, the board does so reluctantly due to an insufficient record to calculate damages:[15]

> Neither the contracting officer nor this board, as the finders of fact designated in the contract, can review the auditor's $6,000 estimate. The amount is relatively small and further administrative costs are hardly justified, so we are tempted to compute the price reduction based upon [the contractor's] actual costs. But [it] is not clear that the parties expected us to determine [the] amount from the record submitted, so we will not follow this jury verdict approach.

In nearly all of these cases on remand, the parties apparently come to an agreement on the price reduction and the case ends without a reported decision on damages. As a result, the Government and contractors have less judicial guidance on damages than for other elements of defective pricing law.

In a few cases, the parties hit an impasse in negotiating price reductions and must return to the court or board for resolution. For some of these cases that rebound to the same forum for yet another decision, the parties may learn the meaning of litigation risk with an unexpected outcome. In one case, none of the parties reaped what they sought, as the board recalculated and reduced the Government's requested damages (cutting them from $888,995 to $253,295 plus interest) and denied the contractor's offset and request to delay the interest clock.[16] In another case, the board initially found liability and returned the case to the parties, who ultimately deadlocked in trying to agree on a price reduction. Upon second review, the board reversed course and held that no liability existed.[17]

■ Undisputed Damages

As one method for meeting its burden of proof, the Government may establish uncontested damages, either based upon a stipulation by the parties or through the contractor's

failure to offer any rebuttal.[18] Such concessions have the advantage of conserving the resources of the parties and the court or board, but also generally foreclose later challenges on appeal by the contractor.

Examples Of Calculations Of Defective Pricing Damages

Not every calculation of damages requires complex mathematics. Some examples illustrate how damages for defective pricing have been calculated for relatively simple nondisclosures relating to material costs (e.g., undisclosed quotes) and labor hours or rates.

■ Material Cost Damages

Perhaps the simplest example of defective pricing in material costs involves a proposed price for a single component and a lower undisclosed quote for that same component. In one case, the contractor proposed a valve based upon a telephonic quote for $37.82 each, but failed to disclose a written quote for $16.50. Based on the difference between the $37.82 proposed and the $16.50 quoted, the defective pricing auditor recommended a price reduction of $1,812.

The board applied simple math to tally the damages: $37.82 (proposed) minus $16.50 (undisclosed) equals $21.32 multiplied by 85 valves equals $1,812. Consistent with the TINA requirements to burden such calculations with any applicable overhead and profit,[19] the board then added 12% profit for a grand total of defective pricing of $2,030 for this valve.[20]

The same method generally applies when multiple nondisclosures of component prices have occurred. For example, one case involved the contractor's failure to update a bill of materials with the most recent prices from purchase orders and quotes for six components for a missile guidance system, as illustrated in Figure 1 below.[21] The board then added a 3% scrap factor ($462.64) and adjusted for a higher quantity of units (64 guidance systems instead of 49) to determine damages of $20,746 for material costs.[22]

■ Labor Cost Damages

For labor rates, damages sometimes get measured in pennies. In a defective pricing case for manufacturing M223 fuzes, the board calculated a difference of 2 cents between the DCAA preaward audit recommended rates ($2.67) versus undisclosed labor cost reports ($2.65). For 22,459,952 fuzes, this 2-cent difference added up to $44,920 in labor rate damages.[23]

In another case, for labor hours under a janitorial contract extension, the contractor provided data for 131 employees, but actually only had 97—a difference of 34 employees. Based upon a per capita rate of approximately 724,430 pesetas (about $6,468 per employee), the board upheld

Figure 1

Part No.	Proposed Price	Undisclosed Price	Difference
2-00005-853	$12,228.00	$10,752.00	$1,536.00
2-00023-455	$6,784.00	$4,825.00	$1,959.00
2-00008-253	$10,816.00	$10,880.00	($64.00)
4-01656-001	$27,240.32	$20,768.00	$6,472.32
4-01118-248	$16,181.76	$12,902.40	$3,279.36
4-02349-170	$23,404.80	$21,166.08	$2,238.72
Net Difference			$15,421.40

damages of $24,630,620 pesetas or $219,916.[24] The contractor offered no credible rebuttal to these calculations.

The Baseline For Defective Pricing Damages

To calculate damages, the undisclosed defective data must be measured against a baseline—i.e., the baseline minus the defective data equals the amount of damages. For those with a mathematical bent, the baseline has sometimes been described as the "minuend," while the undisclosed data serves as the "subtrahend" in the calculation (minuend – subtrahend = difference):[25]

> Stating the problem in mathematical terms, and putting final assembly to one side, in the three measures which they have advocated during the course of this appeal, the parties themselves have agreed on the subtrahend, but disagree on the minuend. They agree that the subtrahend—the figure which is subtracted from some other figure—consists of [the contractor's] undisclosed April, 1981, factors.

This baseline may take several forms. According to the DCAA, the baseline represents the contractor's proposed cost (e.g., what did the contractor propose for labor rates), as updated by the latest data disclosures.[26] This measure may be appropriate for simple defective pricing cases, such as undisclosed quotes, or procurements where the agency accepted the contractor's proposal without independent analysis or negotiations. More commonly, the baseline needs to be adjusted to reflect the realities of the parties' positions, evaluations, and price revisions resulting from the rigors of negotiations. Given that negotiations generally result in reductions to the contractor's proposed costs, the choice of the baseline may have a significant impact on the calculation of defective pricing damages.

■ Removal Of Disclosed Data From The Baseline

As the first step, the baseline must be reviewed to determine whether it includes any defective pricing claims for data that have been disclosed or for which the Government had knowledge. While this step may seem obvious, a number of cases involve postaward audits that have incorporated a mix of both disclosed and undisclosed data. Before defining the baseline, any disclosed data must be removed.

In the simplest case, the Government based its $21,818 price reduction upon multiple claims, one of which rested upon a quote that the board found to be disclosed and thus not properly part of the audit baseline.[27] In the more complex case, the disclosed and undisclosed data may be intertwined in the Government's requested price reduction. For example, in one case, the GAO's postaward audit recommended a $45,529 price reduction based upon overstated material costs due to two interrelated factors: (1) undisclosed vendor quotes and purchase orders, and (2) undisclosed quantity discounts for vendor components.[28] The board upheld the portion of the price adjustment relating to undisclosed vendor quotes and purchase orders ($20,746), but denied the remainder relating to quantity discounts:[29]

> A substantial part of the alleged overstatement of costs arose from the fact that there were price breaks between the quantities required for 49 missile guidance sets and the quantities required for 64 sets. However, it appears that such information was available from the examination made by [Air Force] auditors between 10 to 17 June, and we hold that there was no failure to disclose such information.

This step of removing the disclosed data from the Government's claim may appear to be analytically distinct from the task of establishing the baseline itself. However, as a practical matter, the postaward auditors must define the universe of claims within the baseline before the parties litigate and judges rule. As a result, the process of defining the boundaries for the baseline (what claims go in or must come out) continues throughout the defective pricing litigation, often requiring the parties and the judge to revisit the defective pricing calculations to assure that disclosed data have been excluded from the boundary around the baseline.

■ The Proposed Baseline

As a starting point, everyone agrees that the baseline represents an essential factor in the equation for calculating defective pricing damages. For postaward audits, the DCAA audit guidance

focuses strictly upon the contractor's proposed values, with adjustments limited to updated cost or pricing data: [30]

> Therefore, to evaluate cost or pricing data for compliance with TINA, the auditor must establish an audit baseline as a starting point in order to determine if the cost or pricing data were accurate, complete, and current. The audit baseline for determining if defective pricing exists is (1) the contractor's last proposal before price negotiations began and (2) adjustment for any additional cost or pricing data up to the time of price agreement or disclosure of sweeps data (see [DCAA Contract Audit Manual ¶] 14-120.4) for which the contractor addresses its significance on the proposal and submits it to the Government. Since the baseline starts with the contractor's proposal, it will include both cost or pricing data and judgments.

The DCAA version of a baseline notably omits the effects of other factors on the baseline, such as preaward audit recommendations, Government independent estimates and analyses, or the parties' negotiations that may drive down the proposed price or cost. In effect, the DCAA formulation leaves open the possibility of the Government scoring a double price reduction, once through negotiations and again by the force of a defective pricing adjustment.

Restricting the baseline to the contractor's proposed values and updated cost data may represent the only viable option in some cases, such as procurements where the Contracting Officer accepts the contractor's offering at face value without any real negotiations or independent analysis.[31] Alternatively, a baseline focused only upon the contractor's proposal and data may be appropriate for simple instances of defective pricing, such as nondisclosure of a vendor quote. In rejecting a contractor's request that the baseline be limited to its own data, the U.S. Court of Appeals for the Federal Circuit stated:[32]

> The proper analysis, however, is not as simple as [the contractor] would like to have it. [The contractor's] comparison of the April 1981 figures [undisclosed cost data] and the October 1980 figures [disclosed cost data] might be appropriate in a case where the contractor failed to disclose its correct cost for a single item and the parties used only the most recent figures to calculate the cost.

However, where "the price calculations were complicated, and the parties relied upon a congeries of data," the Federal Circuit held that the baseline must be built upon what the parties negotiated, not simply what the contractor proposed or updated.[33]

Using only the contractor's proposal and data for the baseline may pose two types of problems in calculating a proper price reduction for defective pricing. First, the contractor's proposal as the baseline would ignore any negotiated reductions, thus creating the potential for a double recovery by the Government. In one case, in rejecting the contractor's "November proposal" as the appropriate baseline, the board explained:[34]

> Given these virtually contemporaneous valuations by the participants in the negotiations, use of the November proposal, with its substantially higher value for manufacturing labor than that ultimately agreed to by the parties, would permit the Government to realize anew in the downward price adjustment some of the price concessions which it previously achieved in the negotiations.

Other cases have highlighted this same risk of the Government gaining duplicative savings if the proposal, rather than the negotiated value, serves as the baseline.[35] In a subcontractor defective pricing case, the board concluded that the rates negotiated between the prime contractor and the subcontractor must be used for calculation of damages:[36]

> We have also rejected the Government's application, in calculating the defective pricing adjustment, of rates proposed by [the subcontractor], rather than the rates negotiated by [the subcontractor] and [the contractor] since a contractor is not liable for overstated costs that were eliminated during the price negotiation process.

Second, the proposal itself may not represent the basis for the parties' bargain due to subsequent changes in material terms, such as quantities, schedules, or technical requirements. Such changes during negotiations may present an additional reason for the proposal serving as a poor baseline. For example, in one case, the board stated:[37]

> Second, the November proposal bears other distinguishing features from the ultimate bargain. As we have found, the November proposal related to a different quantity and delivery schedule than that included in the contract, the overall price was substantially higher, and the proposal by its terms expired before certification.…We accordingly do not believe that the record supports the use of the

> November proposal as a basis for measuring the downward price adjustment.

Before even considering the proposed values as a baseline, the parties need to evaluate whether a proposal baseline would be an "apples-to-apples" match with what the Government actually bought.[38]

■ The Evaluated Or Negotiated Baseline

As with determinations of liability, the calculation of defective pricing damages must be done within the context of the facts and circumstances of the particular price negotiations at issue. The ASBCA has explained as follows:[39]

> In determining the amount of the price reduction, our objective has been to carry out the purpose of the Truth in Negotiation[s] Act by arriving at a fair, reasonable and realistic estimate of the amount by which the nondisclosure of the data, viewed in the light of the facts and circumstances existing at the time of the negotiations, can be expected to have increased the negotiated price.

Within this context, the baseline should be set with reference to the price negotiated by the parties, as the board stated:[40]

> We are of the opinion that the minuend [baseline] must consist of the figure or figures which may be most readily reconciled with the contract price ultimately agreed to by the parties. Under the Truth in Negotiations Act, liability arises from nondisclosure which "result[s] in a significant overstatement of the contract price."

In determining the correct baseline, the cases have considered a number of factors, including the CO's price negotiation memorandum (PNM), preaward audit and technical recommendations, Government reliance upon specific documents, and fact versus judgment.

(1) *PNM as Baseline.* After rejecting the contractor's "November proposal" as the appropriate baseline, the board found that the CO's Pre-Negotiation Clearance memorandum ($1,499,427) and the contractor's own PNM ($1,503,504) provided "virtually contemporaneous valuations" of what the parties believed they negotiated for manufacturing labor.[41] In explaining the basis for using the CO's PNM as the baseline, the board stated:[42]

> While any of the available methods of computation of the downward price adjustment may be flawed in some respect, we believe that, in seeking the method that affords the fairest and most reasonable reflection of the price agreed upon, the figures in [the Government's] Pre-Negotiation Clearance memorandum constitute the best starting point. We reach this conclusion because, as stated above, the two negotiators' independent computations of the amount of manufacturing labor were within $4,000 of each other on this $10 million contract, and because [the Government's] negotiator stated shortly after the negotiation that those dollar values corresponded to [the Government's] pre-negotiation position.

(2) *Preaward Audit.* For a multiyear procurement for M223 fuzes, the contractor proposed assembly operations based upon labor rates of $3.14, in contrast to (a) the DCAA prenegotiation audit report that recommended a rate of $2.67 that the CO used as the basis for justifying the negotiated price, and (b) the undisclosed actual rate of $2.65 existing prior to negotiations. The board employed the audit-recommended rates as the baseline for measuring defective pricing:[43]

> The difference between the audit-recommended rates and the undisclosed rates amounted, with manufacturing overhead, G&A and profit, to $81,468 or $.002 per fuze in the Government's justification for the definitive price.

(3) *Government Technical Report and PNM.* To support negotiations relating to a contract for fabricating depleted uranium cores for 105 millimeter projectiles, the CO commissioned a technical analysis of the cost proposal to be performed by a Defense Contract Administrative Services industrial engineer. During the postaward audit, the DCAA followed its standard methodology of using the proposal as the baseline and measuring defective pricing based upon the difference between proposed material ($76.55 per core) and the undisclosed data ($71.40 per core), even though the CO's PNM used a lower value of $69.25 per core. In concluding that the CO's PNM value of $69.25 should be "the starting point here for measuring the adjustment to which the Government is entitled,"[44] the board rejected DCAA's methodology:[45]

> With respect to vendor quotes, waste disposal freight, extrusion freight, the failure to disclose a lower price from the extrusion contractor, and the heat treat baskets, DCAA's adjustments ignore the methodology used by [the DCAS industrial engineer] in her [technical analysis].

> There is, however, no reason to believe that [the CO] would have rejected [the DCAS industrial engineer's] assessment of the quantity of materials required, the number of waste disposal or extrusion freight shipments required, the quantity of material required for extrusion or the number of heat treat baskets required, if there had been disclosure of current data. To ignore [the DCAS industrial engineer's] methodology now after the Government relied on it in the negotiations would duplicate savings already achieved in negotiations.

The board then suggested that the CO may still have negotiated a price lower than $69.25 reflected in his PNM and remanded the matter to the parties to negotiate quantum. However, given that the PNM value of $69.25 was lower than the undisclosed cost data, the Government would appear to have limited options for proving the specific amount of further price reductions.

(4) *Disregarded or Unavailable Data.* The baseline must rest upon data actually considered during the negotiations. In one case, the postaward audit fashioned a baseline upon subcontractor data that the Government negotiators had never seen, thus effectively comparing undisclosed data with undisclosed data:[46]

> The Government erroneously computed the price adjustment by taking the difference between the undisclosed data and [the subcontractor's] 29 November 1983 data.... Since we found [the prime contractor] never forwarded [the subcontractor's] 29 November 1983 update, and the Government negotiators never relied on the updated data...,we conclude using [the subcontractor's] 29 November 1983 data in computing the price adjustment is incorrect. The correct baseline for computing the amount of price adjustment is [the subcontractor's] earlier Black Book data the Should Cost Team used in establishing its negotiation position.

Other cases have also emphasized this requirement that the baseline must be data upon which the Government relied during negotiations.[47]

(5) *Judgmental Baseline.* If the baseline rests upon mere judgment, the Government may lack the predicate for measuring damages by comparing two factual data points—the baseline itself and the undisclosed cost or pricing data. In one case, the Government claimed defective pricing based upon the contractor's estimated bond premiums:[48]

> [The Government] asserts further that, because [the contractor] executed certificates of cost and pricing data, it is entitled by operation of the Price Reduction for Defective Cost and Pricing Data clause to reduce the contract prices by the difference between the actual bond premiums and the estimated amounts included in the proposals.

The board denied the Government's defective pricing claim because "estimated costs submitted in proposals are not cost and pricing data and therefore cannot be defective cost or pricing data."[49] This decision highlights another problem that may arise in the DCAA approach of choosing the contractor's proposal as a baseline for computing defective pricing.[50]

■ Inverted Baselines

Some cases have presented a wholly unexpected circumstance in which the undisclosed cost or pricing data actually exceeds the baseline, thus undercutting the Government's defective pricing claim for an inflated price. That such cases would make it to trial without being settled or withdrawn seems counterintuitive, but published decisions do exist.

In one case, the contractor admitted nondisclosure of 1986 actual cost data and two documents reflecting a combined purchasing strategy. However, this nondisclosure did not matter because the contractor offered a proposed price even lower than this undisclosed data:[51]

> In sum, [the contractor's] FY 86 actual cost data, the Total Value list and the FY 88 [best and final offer], the latter two of which reflected [the contractor's] combined purchasing strategy, all show higher [labor, burden, and material] costs than those contained in the FY 87 BAFO used to negotiate the...contract. As is readily apparent, any failure by [the contractor] to disclose this information did not result in an overstated contract price.

In another case, the Government sought a price adjustment based upon an undisclosed net present value (NPV) analysis that purportedly showed a lower rate than the internal rate of return (IRR) upon which the contractor based its proposal:[52]

> Our findings above also reflect that the IRR and NPV methodologies produce the identical tax adjustment using the same after-tax equity cash flows and a discount rate equal to the IRR and that, with the discount rate the same as the IRR, the weighting for the cash flows of each year is identical using either NPV or IRR.

As these cases illustrate, the Government has no chance of proving an increased price if the baseline is equal to, or lower than, the undisclosed data (i.e., an inverted baseline).

Factors Limiting Or Mitigating Defective Pricing Damages

A wide variety of factors have limited the amount of the Government's price reduction or otherwise mitigated the defective pricing damages. For purposes of organizing these factors, they may be grouped in the following general categories of cost elements and contract types: (1) material costs, (2) labor costs, (3) overhead costs, and (4) contract types.

■ Material Costs & Mitigation Factors

Material costs have consumed a disproportionate share of the defective pricing litigations and, as a result, such costs have been the subject of many of the decisions on damages, as well as factors that may mitigate such damages.

(a) *Added Work.* Sometimes, the prime contractor may incur additional expenses by using the low-priced vendor. For example, in one case, the prime contractor priced rocket fin blades at $0.3325, but failed to disclose a purchase order from a subcontractor at a cost of $0.305 per unit. However, the board found that the prime contractor would incur added costs by using this vendor:[53]

> However, any blades furnished at the reduced prices would require [the contractor] to perform additional work, i.e., drilling and reaming a hole, sizing the boss and alodining, all of which had previously been performed by the supplier.

As a result of this additional effort associated with the low-priced vendor, the board used a jury verdict to split the difference between the prime contractor's proposed price and undisclosed low-priced purchase order.[54]

(b) *Firm Prices Not Subject to Reduction.* In one case, during negotiations, the parties applied a 2% negotiation reduction to material prices contained in an outdated bill of materials. However, this 2% reduction had no applicability to the undisclosed purchase orders that reflected subcontractor firm prices not subject to further negotiated reductions. As a result, this 2% factor had to be backed out of the Government's damages.[55]

(c) *Superseded Data.* If superseding events have rendered a vendor's original (but undisclosed) prices obsolete, then the Government cannot use those prices to calculate an increased price. For example, in one case. the contractor failed to disclose a second-tier subcontractor's $24 price in the contractor's vendor Cost Analysis Report, but the subcontractor had revoked that price due to production difficulties. The board stated:[56]

> Our record reflects that, with the exception of three items, the Cost Analysis Report included higher dollar amounts than did the [Most Probable Outcome] or the spread sheet later submitted. The first item, of course, was the [the second-tier subcontractor's] shift register, which the Cost Analysis Report calculated at the obsolete price of $24; the MPO amount reflected a unit price of $62.50 and the pricing spread was based on $50 per unit. The other differences which resulted in higher amounts in the MPO and the pricing spread were certain material costs which were increased to reflect actuals, and labor costs adjusted upward to reflect newly acquired Government information regarding [the first-tier subcontractor's] direct labor and overhead rates. It is apparent, therefore, that the later documents which [the contractor] did provide to the Government and to which it did provide the requisite certification, provided more current information than did the Cost Analysis Report, in either its draft or final format.

As a result, the Government could not establish any increase in price due to nondisclosure of the vendor Cost Analysis Report. Market changes or suppliers getting out of the business may represent other reasons why lower historical prices from vendors cannot be used as the basis for a price reduction.[57]

(d) *Quantity Adjustments.* In calculating damages for material costs, the impact of quantity on price must be considered.[58] Where the undisclosed vendor quotes or purchase orders affect the higher quantities of units actually negotiated by the parties, the Government's price adjustment may be subject to an upward adjustment.[59] If the undisclosed vendor data relates to significantly higher quantities, the setup costs for the lower quantities at issue may wipe out any price

difference between the proposed prices and the undisclosed history. For example, in one case, the board found as follows:[60]

> With respect to the last three parts shown, [the contractor's] project manager explained the estimates at the hearing. Turning to the purchase history cards, he found purchases made in 1964 for quantities comparable to the 29 required for the contract here. Those prices were $45.00 per unit, plus a set-up charge which, when amortized, brought the price up to about $55.00. In his judgment, this price was more realistic than subsequent procurements in 1966 for quantities of 96, 100 and 370.... Since the Government has not challenged this testimony, and has not introduced evidence to show that disclosure of the March 1966 purchase order data for these three parts would have influenced the negotiations, we find that on the record before us there is no defective pricing with respect to part numbers 26878, 26879, and 26908....

(e) *Fluctuating Market Prices.* In a case involving undisclosed credits for material scrap, the DCAA postaward audit used an "August 1965 selling price for heavy scrap" to show the contractor's proposed price of $.01 per pound to be defective. However, the board found that the record did not support the audit finding for the alleged "August 1965" scrap market price:[61]

> As for the heavy scrap, we have found that scrap prices vary widely over a period of time and for that reason [the contractor's] proposed credit was based upon an average of $.01 per pound realized in performing previous contracts for sales of two grades of heavy metal scrap and turnings. On the basis of uncontradicted testimony [by the contractor's comptroller] we have found that no single selling price can reasonably be considered applicable for any extended period of time. The evidence does not establish whether the August 1965 selling price for heavy scrap cited in the DCAA post award audit report was in effect the entire month of August, some lesser period, or a greater period, or whether that price was actually an average of various scrap selling prices in effect during part or all of August 1965.

(f) *Multiple Source Subcontracting.* The typical vendor quote/purchase order claim involves a prime contractor's requirement for a single source to supply a particular part or subassembly. However, a prime contractor may decide to subcontract with multiple sources for a hard-to-obtain item due to high demand in the marketplace, difficulty in making the part, or other reasons. In one case, the prime contractor planned to buy from three subcontractors, but failed to adequately disclose the quote of one of the subcontractors during face-to-face negotiations. The board recounted the reasons driving the need for all three suppliers:[62]

> First, the [contractor's] chief negotiator testified without challenge that during the March 1967 negotiations he at all times planned to use the three known suppliers (Pettibone, Ladish and JDF) on an equal basis, i.e., to order one-third of [the contractor's] requirements for base plugs from each....Further, the record is persuasive that [the contractor] would not, at the time of negotiations, have changed its plan of obtaining the needed plugs equally from the aforesaid three suppliers, regardless of any effort on the part of the members of the Government's negotiation team to get it to do so, primarily because of the tightness of the supply of base plugs and [the contractor's] desire to utilize all available sources as a sound business-like procedure in order to assure an adequate supply. The record is even more persuasive that the [contractor's] negotiator would not, during the negotiations, have agreed to base [the contractor's] estimated cost for the base plugs upon obtaining the plugs only from Ladish and JDF, and none from Pettibone, even if the Government team members had been fully aware of the JDF purchase order and had suggested same, because, again, of [the contractor's] need for an assured source of supply for the plugs and the uncertain capability of JDF.

The board ultimately rejected the Government's damages methodology because it used differing mixes of subcontractors, quantities, and prices from what the prime contractor planned and the realities of the marketplace dictated. In addition, the board noted that the Government had performed three preaward and two postaward audits, all of which used different and conflicting methodologies to solve this riddle of multiple sources of supply: "The record contains no persuasive evidence as to why any one of the Government's aforesaid five total cost estimates was more valid than another, nor, indeed, that any were valid."[63]

(g) *Switched Subcontractors.* A prime contractor may receive a quote from one vendor, but ultimately award the subcontract to another vendor. If the actual subcontractor is different from the prospective subcontractor whose data was defective, the Government's right to a price reduction is:[64]

> [L]imited to the difference (plus applicable indirect cost and profit markups) between the subcontract price used for pricing the prime contract, and either the actual subcontract price

> or the lower actual cost to the contractor, if not subcontracted, provided the data on which the actual subcontract price is based are not themselves defective.

■ Labor Costs & Mitigation Factors

Defective pricing cases regarding labor costs often grapple with greater levels of subjective factors in contrast to material costs, such as the mathematical precision of subtracting one vendor price from another. Some of the decisions on labor costs appear to be driven by greater judgment inherent in estimating labor trends and hours.

(1) *Time Periods.* Labor hours and rates typically vary over time, so a longer period may offer a more solid basis for calculating defective pricing damages. For example, in one case, the GAO's postaward audit did not simply use the last month or two of the most recent labor data, but instead based its audit recommendation upon a six-month period of labor data. The board found the Government's damages to be reasonable under these circumstances:[65]

> The contracting officer has not based his claim of damages on an extrapolation of the latest, and lowest, labor hour data that could have been available at the price negotiation (i.e., the 30.69 hour average for August and September, and the 30.02 hour average for October). Rather, he has used a 32.5 hour average based on [the contractor's] production experience over the six-month period, from May through October. This average seems to us to make reasonable allowance for the break in production.

In contrast, where the postaward audit uses an unduly truncated period (or one not otherwise representative of expected labor costs), the Government's claimed damages may not survive scrutiny. In another case, where the auditors attempted to project labor trends based upon a short period of performance (April to mid-June), the board rejected the Government's claim:[66]

> Had [the subcontractor] disclosed to [the contractor] the direct labor costs incurred under the purchase order of intent, this would not have had a significant impact on the negotiations of the definitized purchase order because this period was a limited period in relation to the total program of approximately eighteen months [citations omitted]. Moreover, the actual direct labor costs for this limited period were not considered significant because they were incurred before the design was complete and firm and because [the subcontractor] was involved in a mobilization and manpower build-up during the period of mid-April to mid-June 1970 [citations omitted].

(2) *Average Labor Costs.* In some cases, damages have been moderated by averaging the labor rates, rather than using only the latest or lowest rates.[67]

(3) *Audit or Negotiated Rates.* When the Government relies upon a lower estimate for labor than the contractor proposed, the contractor's damages may be mitigated. For example, in one case, where the contractor proposed higher labor costs rejected by the preaward audit, the board measured the damages for labor costs based upon the 2-cent difference between the preaward audit and the undisclosed labor hour data (rather than the 34-cent difference between the contractor's proposal and the undisclosed data).[68] Similarly, in another case, the board used the negotiated ($7.80 per hour), rather than proposed ($8.00 per hour), labor rates to compare with the undisclosed rates ($7.77), thus reducing the damages from the postaward recommendation (23 cents) to the board's assessment of 3 cents per hour.[69]

(4) *Learning Curves.* In a number of cases, the Government has sought to measure damages by use of learning curves, but without apparent success. In one case, the Government lost because the subcontractor's lingering technical difficulties rendered the learning curve flat—i.e., no learning was occurring:[70]

> In [reducing the Government's damage calculations], we have rejected the Government's calculation of overstated labor hours by applying a learning curve to incurred Lot X labor hours because we are not persuaded on the record before us that a learning curve would have been applied to Lot X actuals by [the subcontractor] and [the contractor] even if all required data had been disclosed….

Damages computed on the basis of learning curves have also failed where (1) the Government negotiator "was clear in his testimony that he did not like to use formal learning curves,"[71] or (2) "the Government has failed to carry its overall burden of producing credible evidence that learning curves would have been used in the negotiations."[72]

■ Overhead Costs & Mitigation Factors

As a general rule, defective pricing damages include not only the direct impact of the defective pricing, but also an allocable portion of overhead and profit on that amount.[73] However, the board refused to apply overhead and profit in one case where the Government increased its claim by over $56,000 just "24 hours prior to the commencement of the hearing," leaving the contractor insufficient time to respond at trial:[74]

> As a result of this reliance [the contractor] was not in a position reasonably to defend the Government's revision of its claim which was presented to [the contractor] only 24 hours before the commencement of the hearing on the appeal. Further, even if we were to grant [the contractor] additional time to prepare, because of [the contractor's] reliance on the initial Government position, the condition of [the contractor's] records is such that it is not reasonably possible for [the contractor] to reconstruct its records at this time. Accordingly, we find that [the contractor's] overhead and general and administrative expenses should not be included in amounts found due as a result of the [contractor's] submission of defective data.

In another case, after multiple decisions on the subcontractor defective pricing, the parties finally reached a decision on damages. The Government asserted damages based upon (1) an 8.5% difference between the subcontractor's proposed 45% G&A rate and the corrected 36.5% rate reflecting the removal of the Cost of Facilities (COF) charge, (2) the impact of this defect on 1986 rates, and (3) markups on the prime contractor's contract price. Instead, the board trimmed down the Government's damages by (a) rejecting the proposed 45% G&A rate as the proper baseline because this rate had been disclosed, (b) calculating damages based the lower actual G&A rates of 30.3% (with COF charge) and 23.1% (excluding COF charge), and (c) refusing to "apply prime contract mark-ups to the disallowed costs" because the subcontractor defective pricing occurred after the price agreement between the Government and the prime contractor. As a result, the Government recovered $253,295 plus interest, rather than its demand for $452,486 plus interest.[75]

■ Contract Types & Calculation Of Damages

The type of contract may affect the amount of damages that the Government may recover for defective pricing. In one case, for example, the parties had traditionally employed a fixed-price incentive contract for procurement of fuzes for mortars. In an urgent procurement, the agency asked the contractor to produce an M65 fuze. The contractor had previously manufactured a similar fuze (M84), but not the M65 and no one had "manufactured [the M65] since the time of the Korean conflict."[76] Based upon the contractor's failure to disclose lower vendor quotes, the Government alleged defective pricing. However, manufacturing fuzes involved high risk, especially for vendors without prior experience, as the board found:[77]

> [The contractor] gave evidence that on the M84 it encountered constantly slipping production schedules and a very serious round of price increases with its vendors, some of the prices almost doubling [citations omitted]. The time train ring on the M84 fuze had been a particularly serious problem. At the time Modification No. 1 was negotiated, the low quotes looked promising, but a serious risk would have been involved in entering into a firm fixed-price contract based on using quotes from prospective vendors who had not previously produced the parts and were offering prices so much lower than the prices at which the parts had previously been procured.

Based upon this history of production problems and risk, the board concluded that the parties would not have been able to reach agreement on a firm-fixed-price basis using these quotes, but instead would have resorted to a fixed-priced incentive contract previously struck between the parties. As a result, the board imposed a "60/40 sharing arrangement" to calculate damages: "This means that the Government would have received 60% of the $389,281 savings resulting from utilization of the low quotes, which is $233,569."[78]

For flexibly priced contracts, the boards have limited the defective pricing adjustment in various ways. For example, in a defective pricing action under a fixed-price incentive contract, the Government claimed defective pricing of "$185,831, resulting in [the contractor] receiving unwarranted profit of $45,529."[79] After reducing the damages to $22,661 based upon findings of disclosed data, the board limited the price reduction to the impact on profit:[80]

> We compute the price reduction allowable under the Price Reduction clause as follows:
>
> | | |
> |---|---|
> | Target profit (9.5% of $22,661) | $2,153 |
> | Incentive Profit (15% of $22,661) | $3,399 |
> | Total | $5,552 |
>
> Accordingly, we determine that the Government is entitled to a price reduction of $5,552 as an equitable reduction under the Price Reduction for Defective Pricing Data clause.

In another case involving a fixed-price incentive contract, the board developed the price reduction in the context of the parties' initial target cost figures, "reducing the Government's initial target cost figure by $162,504 and then applying the same 'split' developed by the parties during their negotiations." Based upon the parties splitting this difference using a "49.05% 'split,'" the board determined damages of $89,696, rather than the Government's demand for a $176,252 reduction.[81]

GUIDELINES

These *Guidelines* are intended to assist you in understanding how damages for defective pricing are calculated. They are not, however, a substitute for professional representation in any specific situation.

1. Recognize that under TINA, proof of an increased price is an indispensable element of a defective pricing claim.

2. Remember that while the Government bears the burden of proving damages for defective pricing, it benefits from a rebuttable presumption that the defective data affected the contract price on a dollar-for-dollar basis.

3. Keep in mind that in the majority of defective pricing cases, the judge never decides damages. In many cases, no liability exists, and in other cases, the judge recognizes some unspecified impact on price but remands to the parties to work out the specific amount through negotiations.

4. Address risks in material cost pricing to reduce the risk of defective pricing. Cases on material costs tend to dominate the cases decided on damages.

5. Be aware that to calculate damages, the undisclosed defective data must be measured against a baseline. Under the DCAA's formulation, the baseline represents the contractor's proposed cost as updated by the latest data disclosures. While this measure may be appropriate for simple defective pricing cases, such as undisclosed quotes, more commonly, the baseline needs to be adjusted to reflect the realities of the parties' positions, evaluations, and price revisions resulting from negotiations.

6. Remove any disclosed data before defining the baseline.

7. Note that in determining the correct baseline, the cases have considered factors such as the CO's price negotiation memorandum, preaward audit and technical recommendations, Government reliance upon specific documents, and fact versus judgment.

8. Be cognizant that the Government has no chance of proving an increased price if the baseline is equal to, or lower than, the undisclosed data.

9. Be aware that for material costs, the Government's damages for defective pricing may be mitigated or limited by added work, firm prices not subject to reduction, superseded data, quantity adjustments, fluctuating market prices, and multiple or switched subcontractors.

10. Bear in mind that for labor costs, the Government's damages for defective pricing may be mitigated or limited by using longer time periods, average labor costs, audit or negotiated rates, and learning curves.

11. Keep in mind that as a general rule, defective pricing damages include not only the direct impact of the defective pricing, but also an allocable portion of overhead and profit on that amount.

12. Recognize that the type of contract may affect the amount of damages that the Government may recover for defective pricing. For flexibly priced contracts, the boards have limited the defective pricing adjustment in various ways.

★ REFERENCES ★

1/ S. Rep. No. 87-1884, at 2 (1962), as reprinted in 1962 U.S.C.C.A.N. 2476, 2477.

2/ Am. Mach. & Foundry Co., ASBCA No. 15037, 74-1 BCA ¶ 10,409, at 49,181.

3/ Am. Mach. & Foundry Co., ASBCA No. 15037, 74-1 BCA ¶ 10,409, at 49,181.

4/ PAE Int'l, ASBCA No. 20595, 76-2 BCA ¶ 12,044, at 57,807–08 (with great reluctance, the board remanded due to an inadequate record to calculate damages).

5/ Pub. L. No. 87-653, § (e), 76 Stat. 528, 529 (1962), reprinted in 1962 U.S.C.C.A.N. 619, 620.

6/ 10 U.S.C.A. § 2306a(e)(1)(A); 41 U.S.C.A. § 3506(a)(1).

7/ FAR 15.407-1(b).

8/ Am. Mach. & Foundry Co., ASBCA No. 15037, 74-1 BCA ¶ 10,409, at 49,178; see also Litton Sys., Inc., Amecom Div., ASBCA No. 36509, 92-2 BCA ¶ 24,842, at 123,944, 34 GC ¶ 20 ("Government must…show by some reasonable method the amounts by which the final negotiated price was overstated"); accord Rosemount, Inc., ASBCA No. 37520, 95-2 BCA ¶ 27,770, at 138,454, 37 GC ¶ 540.

9/ Am. Bosch Arma Corp., ASBCA No. 10305, 65-2 BCA ¶ 5280, at 24,853, corrected by 66-2 BCA ¶ 5747, vacated, 67-2 BCA ¶ 6564.

10/ See Sylvania Elec. Prods., Inc. v. United States, 202 Ct. Cl. 16, 28 n.7, 479 F.2d 1342, 1349 n.7 (citing the 1970 version of Armed Services Procurement Regulation § 3-807-5(a)(2)).

11/ See, e.g., Sperry Corp. Computer Sys., Def. Sys. Div., ASBCA No. 29525, 88-3 BCA ¶ 20,975, at 105,987, aff'd sub nom. Unisys Corp. v. United States, 888 F.2d 841 (Fed. Cir. 1989).

12/ Bell & Howell Co., ASBCA No. 11999, 68-1 BCA ¶ 6993, at 32,348 (holding that the negotiation difference between the parties' positions could not have been closed under a firm-fixed price contract, thus resulting in a reversion to a fixed-price incentive contract and a 60/40 sharing of costs).

13/ Am. Mach. & Foundry Co., ASBCA No. 15037, 74-1 BCA ¶ 10,409, at 49,178–79.

14/ See, e.g., Lockheed Martin Corp., d/b/a Sanders, ASBCA Nos. 50566, 51351, 51784, 02-2 BCA ¶ 31,907, at 157,634, 44 GC ¶ 295 ("appeals are remanded to the parties for the determination of the price adjustment"); GKS, Inc., ASBCA Nos. 47692, 49296, 00-1 BCA ¶ 30,914, at 152,559, 42 GC ¶ 223 (one of the appeals "is remanded to the parties to negotiate quantum"); Aerojet Ordnance Tenn., ASBCA No. 36089, 95-2 BCA ¶ 27,922, at 139,451 ("matter is returned to the parties for the negotiation of quantum").

15/ PAE Int'l, ASBCA No. 20595, 76-2 BCA ¶ 12,044, at 57,807–08 ("matter is remanded to the parties for determination of a proper price reduction").

16/ Motorola, Inc., ASBCA No. 51789, 02-2 BCA ¶ 32,043, at 158,363–65.

17/ Black River Ltd. P'ship, ASBCA No. 51754, 02-1 BCA ¶ 31,839, at 157,326, 44 GC ¶ 201 (holding that the omission of the net present value calculations "neither misled the Government nor resulted in an increase in the contract price").

18/ Singer Co., Librascope Div. v. United States, 217 Ct. Cl. 225, 252, 576 F.2d 905, 921 (1978) ("plaintiff did not raise any objections" or "point out any errors or flaws in the calculations"); McDonnell Aircraft Co., ASBCA No. 44504, 03-1 BCA ¶ 32,154, at 158,963 ("Pursuant to our decision and the parties' stipulation, the Navy is entitled to $1,214,500, plus interest."); Sperry Corp. Computer Sys., Def. Sys. Div., ASBCA No. 29525, 88-3 BCA ¶ 20,975, at 105,984, aff'd sub nom. Unisys Corp. v. United States, 888 F.2d 841 (Fed. Cir. 1989) (parties stipulated to $22,373 for one defective pricing claim).

19/ 10 U.S.C.A. § 2306a(e)(1)(A); 41 U.S.C.A. § 3506(a)(1).

20/ Hardie-Tynes Mfg. Co., ASBCA No. 20717, 76-2 BCA ¶ 12,121, at 58,229–30.

21/ Am. Bosch Arma Corp., ASBCA No. 10305, 65-2 BCA ¶ 5280, at 24,852, corrected by 66-2 BCA ¶ 5747, vacated, 67-2 BCA ¶ 6564.

22/ Am. Bosch Arma Corp., ASBCA No. 10305, 65-2 BCA ¶ 5280, at 24,852, corrected by 66-2 BCA ¶ 5747, vacated, 67-2 BCA ¶ 6564. The board then applied these damages to the target and incentive profit for a price reduction of $5,552.

23/ Etowah Mfg. Co., ASBCA No. 27267, 88-3 BCA ¶ 21,054, at 106,337–39.

24/ Limpiezas Corona S.A., ASBCA No. 45504, 96-1 BCA ¶ 28,137, at 140,462–63, 38 GC ¶ 332.

25/ Sperry Corp. Computer Sys., Def. Sys. Div., ASBCA No. 29525, 88-3 BCA ¶ 20,975, at 105,985, aff'd sub nom. Unisys Corp. v. United States, 888 F.2d 841 (Fed. Cir. 1989).

26/ DCAA Contract Audit Manual ¶ 14-116.2(a) (June 9, 2011).

27/ Hardie-Tynes Mfg. Co., ASBCA No. 20717, 76-2 BCA ¶ 12,121, at 58,226 (finding parts vendor's quote to be disclosed and excluding $8,588 from Government's requested price reduction).

28/ Am. Bosch Arma Corp., ASBCA No. 10305, 65-2 BCA ¶ 5280, at 24,845, corrected by 66-2 BCA ¶ 5747, vacated, 67-2 BCA ¶ 6564.

29/ Am. Bosch Arma Corp., ASBCA No. 10305, 65-2 BCA ¶ 5280, at 24,852, corrected by 66-2 BCA ¶ 5747, vacated, 67-2 BCA ¶ 6564.

30/ DCAA Contract Audit Manual ¶ 14-116.2(a) (June 9, 2011).

31/ There is some question whether an agency may reasonably take such a hands-off approach, particularly given the regulatory admonition that the Certificate of Current Cost or Pricing Data "is not a substitute for examining and analyzing the contractor's proposal." FAR 15.406-2(d).

32/ Unisys Corp. v. United States, 888 F.2d 841, 844 (Fed. Cir. 1989).

33/ Unisys Corp. v. United States, 888 F.2d 841, 844 (Fed. Cir. 1989).

34/ Sperry Corp. Computer Sys., Def. Sys. Div., ASBCA No. 29525, 88-3 BCA ¶ 20,975, at 105,986, aff'd sub nom. Unisys Corp. v. United States, 888 F.2d 841 (Fed. Cir. 1989).

35/ See, e.g., Aerojet Ordnance Tenn., ASBCA No. 36089, 95-2 BCA ¶ 27,922, at 139,441 ("Some adjustment to avoid duplication is in order."); Sperry Univac Div., Sperry Rand Corp., DOTCAB No. 1144, 82-2 BCA ¶ 15,812, at 78,341 ("Since [the contractor] had already reduced its offered price to take the lower subcontract cost into account, there is no basis for believing that it would have been willing to accept a further reduction in the proposed price, duplicating that already given.").

36/ Grumman Aerospace Corp., ASBCA Nos. 35188, 35189, 90-2 BCA ¶ 22,842, at 114,699.

37/ Sperry Corp. Computer Sys., Def. Sys. Div., ASBCA No. 29525, 88-3 BCA ¶ 20,975, at 105,986, aff'd sub nom. Unisys Corp. v. United States, 888 F.2d 841 (Fed. Cir. 1989).

38/ See Kisco Co., ASBCA No. 18432, 76-2 BCA ¶ 12,147, at 58,432–33 (rejecting a price reduction where changes in schedule, price, and quantities severed the connection to the original pricing and "[f]urther [price] reduction would be punitive").

39/ Bell & Howell Co., ASBCA No. 11999, 68-1 BCA ¶ 6993, at 32,349.

40/ Sperry Corp. Computer Sys., Def. Sys. Div., ASBCA No. 29525, 88-3 BCA ¶ 20,975, at 105,986, aff'd sub nom. Unisys Corp. v. United States, 888 F.2d 841 (Fed. Cir. 1989) (citing Grumman Aerospace Corp., ASBCA No. 27476, 86-3 BCA ¶ 19,091, at 96,493–94).

41/ Sperry Corp. Computer Sys., Def. Sys. Div., ASBCA No. 29525, 88-3 BCA ¶ 20,975, at 105,985–86, aff'd sub nom. Unisys Corp. v. United States, 888 F.2d 841 (Fed. Cir. 1989).

42/ Sperry Corp. Computer Sys., Def. Sys. Div., ASBCA No. 29525, 88-3 BCA ¶ 20,975, at 105,986, aff'd sub nom. Unisys Corp. v. United States, 888 F.2d 841 (Fed. Cir. 1989).

43/ Etowah Mfg. Co., ASBCA No. 27267, 88-3 BCA ¶ 21,054, at 106,337.

44/ Aerojet Ordnance Tenn., ASBCA No. 36089, 95-2 BCA ¶ 27,922, at 139,440.

45/ Aerojet Ordnance Tenn., ASBCA No. 36089, 95-2 BCA ¶ 27,922, at 139,441.

46/ McDonnell Douglas Helicopter Sys., ASBCA No. 50341, 99-2 BCA ¶ 30,546, at 150,836, 41 GC ¶ 442 (remanding the case for determination of quantum, in part, "[b]ecause the Government used the incorrect baseline").

47/ Unisys Corp. v. United States, 888 F.2d 841, 845 (Fed. Cir. 1989) ("The Board held that the correct comparison is with the figures on which the government relied in formulating its January Pre-Negotiation Clearance, since those were the figures upon which the government negotiated the contractual price."); Aerojet Ordnance Tenn., ASBCA No. 36089, 95-2 BCA ¶ 27,922, at 139,441 ("To ignore [the industrial engineer's] methodology now after the Government relied on it in the negotiations would duplicate savings already achieved in negotiations.").

48/ Pangea, Inc. v. Gen. Servs. Admin., GSBCA Nos. 16688, 16689, 05-2 BCA ¶ 33,096, at 164,062.

49/ Pangea, Inc. v. Gen. Servs. Admin., GSBCA Nos. 16688, 16689, 05-2 BCA ¶ 33,096, at 164,062.

50/ United Techs. Corp., ASBCA Nos. 51410, 53089, 53349, 04-1 BCA ¶ 32,556, at 161,025, aff'd on additional grounds, 05-1 BCA ¶ 32,860, aff'd, 463 F.3d 1261 (Fed. Cir. 2006), 47 GC ¶ 86 ("[A] contractor's offer is a mix of judgments as to how best to accomplish contract work at a price that is developed to cover anticipated cost and a satisfactory profit.").

51/ Alliant Techsystems, Inc., ASBCA Nos. 47626, 51280, 00-2 BCA ¶ 31,042, at 153,298, 42 GC ¶ 339.

52/ Black River Ltd. P'ship., ASBCA No. 51754, 02-1 BCA ¶ 31,839, at 157,325, 44 GC ¶ 201.

53/ Muncie Gear Works, Inc., ASBCA No. 18184, 75-2 BCA ¶ 11,380, at 54179.

54/ Muncie Gear Works, Inc., ASBCA No. 18184, 75-2 BCA ¶ 11,380, at 54180 ("On a jury verdict basis we conclude that the [contractor's] increased costs of operation in producing the fin blades were one half the difference between the .326 quotation and the .305 quotation," halving the damages to $2,838); see also Cutler-Hammer, Inc. v. United States, 189 Ct. Cl. 76, 92, 416 F.2d 1306, 1316 (supporting board's finding that "[the contractor] had to supply substantial and unusual technical assistance to [the supplier] in helping the latter in developing the Lunesberg lens").

55/ Conrac Corp., ASBCA No. 15964, 74-1 BCA ¶ 10,605, at 50,293, aff'd, 214 Ct. Cl. 561, 558 F.2d 994 (1977).

56/ Grumman Aerospace Corp., ASBCA No. 27476, 86-3 BCA ¶ 19,091, at 96,495.

57/ Hardie-Tynes Mfg. Co., ASBCA No. 20717, 76-2 BCA ¶ 12,121, at 58,228–29 (vendor stopped producing the part, making its purchase history "a dead letter"); Norris Indus., Inc., ASBCA No. 15442, 74-1 BCA ¶ 10,482, at 49,572 (although contractor had previously bought low-cost Japanese seamless tubing, "it was no longer available in the quantities suitable for use in fabricating the negotiated bomb contract quantities").

58/ McDonnell Douglas Helicopter Sys., ASBCA No. 50341, 99-2 BCA ¶ 30,546, at 150,837, 41 GC ¶ 442 (remanding to the parties to determine quantum because the Government "failed to consider the effects of price/quantity" on the price adjustment).

59/ Am. Bosch Arma Corp., ASBCA No. 10305, 65-2 BCA ¶ 5280, at 24,852, corrected by 66-2 BCA ¶ 5747, vacated, 67-2 BCA ¶ 6564 (based upon negotiated quantities being 64 missile guidance sets rather than 49, the board increased the damages from $15,884 to $20,746).

60/ Conrac Corp., ASBCA No. 15964, 74-1 BCA ¶ 10,605, at 50,288, aff'd, 214 Ct. Cl. 561, 558 F.2d 994 (1977).

61/ Norris Indus., Inc., ASBCA No. 15442, 74-1 BCA ¶ 10,482, at 49,575.

62/ Am. Mach. & Foundry Co., ASBCA No. 15037, 74-1 BCA ¶ 10,409, at 49,179.

63/ Am. Mach. & Foundry Co., ASBCA No. 15037, 74-1 BCA ¶ 10,409, at 49,176.

64/ FAR 15.407-1(f)(1).

65/ Lambert Eng'g Co., ASBCA No. 13338, 69-1 BCA ¶ 7663, at 35,576–77.

66/ Boeing Co., ASBCA No. 20875, 85-3 BCA ¶ 18,351 at 92,025.

67/ M-R-S Mfg. Co., ASBCA No. 14825, 71-1 BCA ¶ 8821, at 41,003, aff'd, 203 Ct. Cl. 551, 492 F.2d 835 (1974); Lambert Eng'g Co., ASBCA No. 13338, 69-1 BCA ¶ 7663, at 35,576–77.

68/ Etowah Mfg. Co., ASBCA No. 27267, 88-3 BCA ¶ 21,054, at 106,337.

69/ Kaiser Aerospace & Elec. Corp., ASBCA No. 32098, 90-1 BCA ¶ 22,489, at 112,882–83.

70/ Grumman Aerospace Corp., ASBCA Nos. 35188, 35189, 90-2 BCA ¶ 22,842, at 114,699.

71/ Aerojet Ordnance Tenn., ASBCA No. 36089, 95-2 BCA ¶ 27,922, at 139,442 (recognizing some learning, but rejecting use of learning curves to calculate damages and remanding to the parties to resolve quantum).

72/ Rosemount, Inc., ASBCA No. 37520, 95-2 BCA ¶ 27,770, at 138,456, 37 GC ¶ 540 (finding lack of reliance or causation where the parties had not used labor trends or learning curves during the negotiations).

73/ See, e.g., Lambert Eng'g Co., ASBCA No. 13338, 69-1 BCA ¶ 7663, at 35,573 (adding the "related overhead and profit" to the overstated labor costs).

74/ Muncie Gear Works, Inc., ASBCA No. 18184, 75-2 BCA ¶ 11,380, at 54181.

75/ Motorola, Inc., ASBCA No. 51789, 02-2 BCA ¶ 32,043, at 158,363.

76/ Bell & Howell Co., ASBCA No. 11999, 68-1 BCA ¶ 6993, at 32,336–37.

77/ Bell & Howell Co., ASBCA No. 11999, 68-1 BCA ¶ 6993, at 32,348.

78/ Bell & Howell Co., ASBCA No. 11999, 68-1 BCA ¶ 6993, at 32,349.

79/ Am. Bosch Arma Corp., ASBCA No. 10305, 65-2 BCA ¶ 5280, at 24,839, corrected by 66-2 BCA ¶ 5747, vacated, 67-2 BCA ¶ 6564.

80/ Am. Bosch Arma Corp., ASBCA No. 10305, 65-2 BCA ¶ 5280, at 24,854, corrected by 66-2 BCA ¶ 5747, vacated, 67-2 BCA ¶ 6564.

81/ Aerojet-General Corp., ASBCA No. 12873, 69-1 BCA ¶ 7585, at 35,219–20.