

Analyzing Direct Material Costs

Resources Glossary Help

Module Introduction

Welcome to Analyzing Direct Materials Costs!

You might be wondering, "How will the information in this module help me in my job as a contract specialist?"

Direct material costs often account for more than half of the total contract cost. As a contract specialist you will need to determine how to develop a pre-negotiation objective that results in a reasonable position on the direct materials cost element.

This module presents information about the different types of material costs. You will also learn about three kinds of estimates:

- Summary level
- Detailed quantity
- Unit cost

User Instructions: Select Next to continue.

[D](#)

1 of 28 Back Next

Contract specialists need to analyze direct material costs when developing a pre-negotiation objective.

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Objectives


At the end of this module, you will be able to:

- Identify the different types of material costs
- Determine the appropriateness of the offeror's cost estimating methodology
- Determine the fairness and reasonableness of summary level cost estimates
- Establish the fairness and reasonableness of detailed quantity estimates
- Evaluate the reasonableness of unit cost estimates

Sound good? All right, let's get started.

Select Next for a high-level overview of the content that will be presented in this module.

User Instructions: Select Next to continue.



2 of 28 Back Next

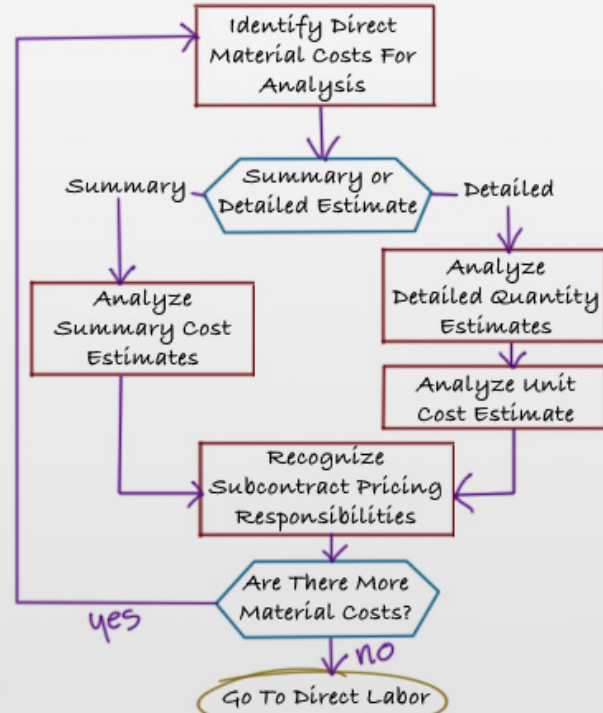
Analyzing Direct Material Costs

Overview - Direct Material Costs Flowchart

The process for analyzing direct material costs is shown in the flowchart to the right.

This flowchart shows why you need to know the different types of material costs and how to use summary level cost estimates, detailed quantity estimates, and unit cost estimates. The flowchart is available in the Contract Pricing Reference Guide (CPRG), Volume 3, Chapter 6.

Do not worry if this flowchart does not make sense now. It will by the end of this module!



User Instructions: Select Next to continue.

[D](#)

3 of 28

Back

Next

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Overview - Identifying Material Cost Elements

The cost of materials used to complete a contract normally includes more than just the cost of the materials that actually become part of the product.

For example, the cost of the raw materials for the renovation of the Berent's dining hall facility includes not just the cost of the building materials but also the freight costs to ship them.

Types of materials costs include:

- Raw materials, parts, subassemblies, components, and manufacturing supplies that actually become part of the product
- Collateral costs such as freight and insurance
- Related costs such as material that cannot be used for its intended purpose (e.g., overruns, spoilage, and defective parts)

Review [FAR 31.205-26](#) to learn more.

User Instructions: Select Next to continue.



4 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Overview – Direct vs. Indirect Costs

Material costs can be categorized as either **direct** or **indirect**.

- A direct material cost is any material cost that can be **identified specifically with a final cost objective**.
- An indirect material cost is any material cost **not directly identified with a single final cost objective**, but identified with two or more final cost objectives or an intermediate cost objective.

Each firm is responsible for determining whether a specific cost will be charged as a direct cost or an indirect cost.

User Instructions: Select Next to continue.

[D](#)

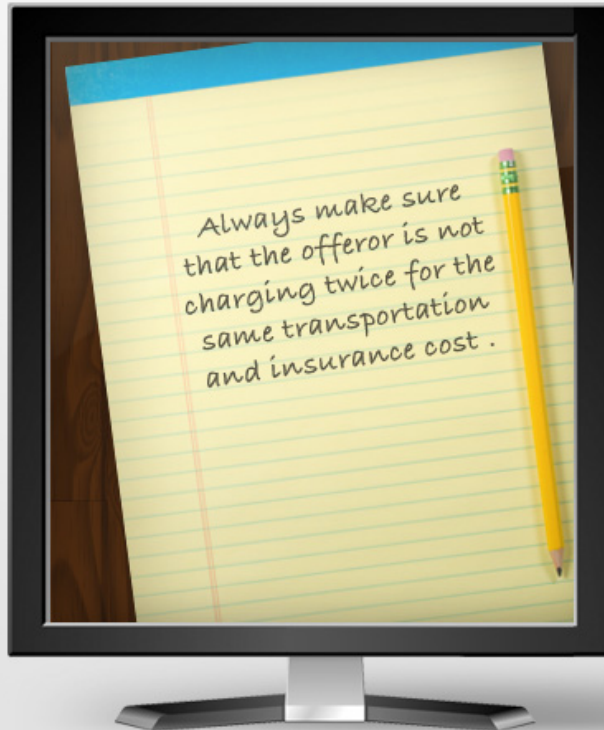
Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Overview - Identifying Collateral Costs

Collateral costs are those associated with transporting materials into an offeror's plant, and can be treated as either direct or indirect costs depending on the guidelines established by the firm.

Two examples of collateral costs are inbound transportation and intransit insurance.



User Instructions: Select Next to continue.

[D](#)

6 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Overview - Identifying Related Costs

Related costs are identified as excess materials that the offeror proposes to purchase to assure that sufficient material is available for production of the item.

Estimates may include costs related to material overruns, scrap, spoilage, or defective parts.

Estimates of these costs are usually developed using a cost estimating relationship (CER).



User Instructions: Select Next to continue.

[D](#)

7 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

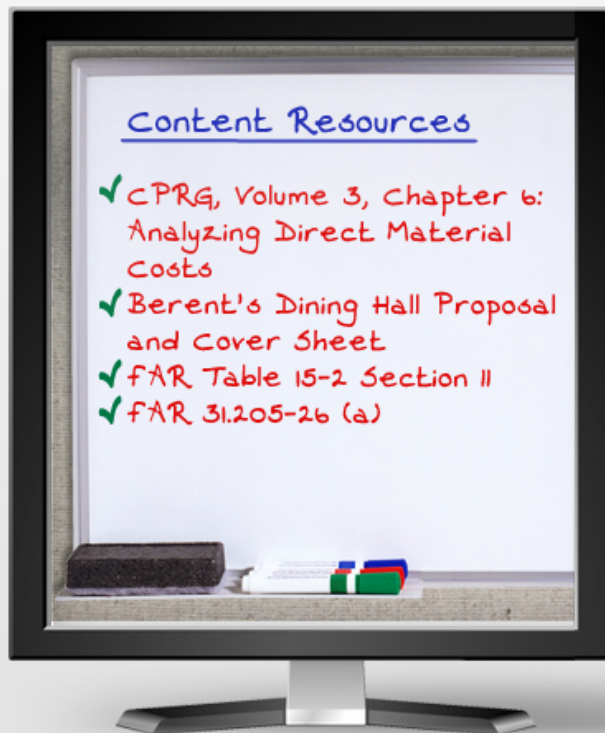
[Resources](#)[Glossary](#)[Help](#)

Module Resources

Review the graphic to the right to see what specific resources are used as references for the content in this module.

It is strongly recommended that you review these resources before proceeding with the module. Doing so will put you "ahead of the game" and will help you to answer the challenge questions to come!

Select the Resources tab for links to these and other references.

[D](#)

User Instructions: Select Next to continue.

8 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Simulation Overview

In this module, you are going to answer a series of Challenge Questions about analyzing direct material costs. Do not worry if you miss a question - you will be directed to pertinent content and then given a chance to answer the question again.

Even if you get a question right the first time, it is **strongly** recommended that you elect to review the pertinent content by selecting the Review button. This review will help you answer the practice test questions at the end of the module.


Remember to use the Resources and Glossary tabs at any time during the simulation to access helpful information.

User Instructions: Select Next to continue.

[D](#)

Analyzing Direct Material Costs

ResourcesGlossaryHelp




Hi, this is Jessica, your Contracting Officer. Why don't you take some time right now to look over the FAR Table 15-2, Section II, Cost Elements and then review the proposal of the Berent's Dining Hall Expansion.

User Instructions: Select Next to continue.

10 of 28BackNext

Analyzing Direct Material Costs

Resources Glossary Help



Let me know if you see any items on the proposal that shouldn't be considered direct costs. Talk to you soon.

User Instructions: Select Next to continue.

10 of 28 Back Next

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Challenge Question #1

Review the contractor's proposal. Do you think that the contractor has appropriately classified the construction fencing as a direct material?

- ☐ A. Yes, the contractor can define and categorize costs in any manner he wishes.
- ☐ B. No, direct materials are items such as raw materials, parts, sub-assemblies, components, and manufacturing supplies; collateral costs such as in-transit insurance and related costs such as scrap and spoilage.
- ☐ C. Yes, these items are collateral costs of doing business and may properly be charged as direct material.
- ☐ D. No, this item will not be incorporated into the end item being produced or built and therefore cannot be classified as a direct material cost.

[Check Answer](#)

User Instructions: Select the correct answer.

11 of 28

[Back](#)[Next](#)

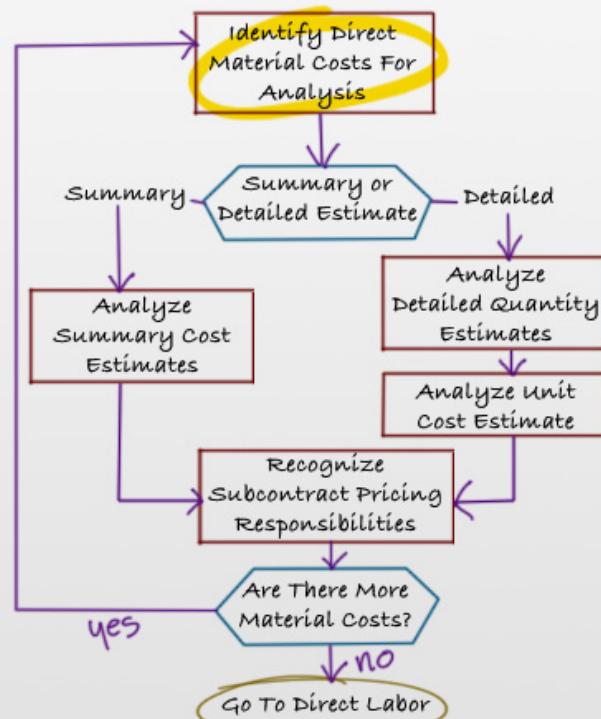
Analyzing Direct Material Costs

Identifying Material Cost Elements

Material costs usually include more than just the cost of materials that actually become part of the end product.

Here are a few examples of material costs:

- Raw materials - become part of the end product
- Collateral costs - freight and insurance
- Materials that cannot be used for its intended purpose - overruns, spoilage, and defective parts



User Instructions: Select Next to continue.

[D](#)

11 of 28

Back

Next

Analyzing Direct Material Costs

Resources

Glossary

Help

Identifying Direct Material Costs

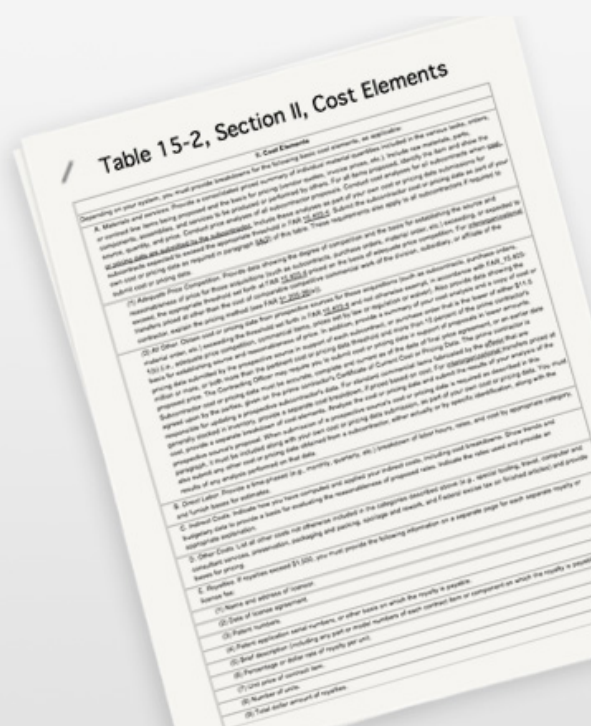
A direct material cost is any material cost that can be identified specifically with a final cost objective.

Material costs that are direct costs of a particular contract must be charged to that contract.

Material costs must not be charged to a contract as a direct cost if other material costs incurred for the same purpose in like circumstances have been charged as an indirect cost to that contract or any other contract.

All material costs specifically identified with other contracts are direct costs for those contracts and must not be charged to another contract directly or indirectly.

Review Table 15-2, Section II, under your Resources tab for more details on cost elements.



User Instructions: Select Next to continue.

11 of 28

Back

Next

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Identifying Indirect Material Costs


An indirect material cost is any material cost that is not directly required in the making of the final product, but is still necessary in the manufacturing process, e.g., manufacturing supplies.

These are supplies that are required by a manufacturing process or in support of manufacturing activities. You should review FAR 31.205-26 (a) for more information on material costs.

[Select here to view a table that defines material types, descriptions, and accounting treatments as they relate to direct and indirect costs.](#)

User Instructions: Select Next to continue.

How do I define indirect material costs?



11 of 28

BackNext

Identifying Indirect Material Costs - Windows Internet Explorer

http://performtech.com/dau_con/clc056/07/images/ca_07_01_0110_30_popTable.htm

Material Type	Description	Accounting Treatment
Raw Materials	Materials that require further processing	Normally a direct cost
Parts	Items which, when joined together with another item, are not normally subject to disassembly without destruction or impairment of use	Normally a direct cost but possibly an indirect cost if price is very small
Subassemblies	Self-contained units of an assembly that can be removed, replaced, and repaired separately	Normally a direct cost
Components	Items which generally have the physical characteristics of relatively simple hardware items and which are listed in the specifications for an assembly, subassembly, or end item	Normally a direct cost
Manufacturing Supplies	Items of supply that are required by a manufacturing process or in support of manufacturing activities	Normally an indirect cost

[Close Window](#)

Done Internet 100%

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Identifying Collateral Costs

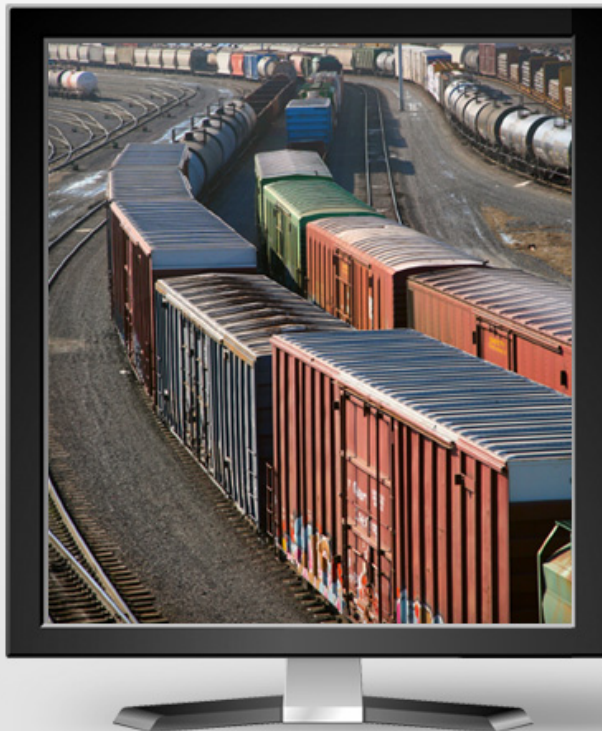
Collateral costs are expenses associated with getting materials into the offeror's plant. Inbound transportation and intransit insurance are two common examples.

Inbound transportation cost, also known as freight-in expense, is the cost of transporting material to the place of contract performance.

This cost is allowable only if it is reasonable and should be included in any price quoted f.o.b. (free on board) destination.

These costs may either be treated as direct costs or indirect costs depending on the guidelines established by the firm.

If treated as direct costs, they are normally tracked with the cost of the associated material item.



User Instructions: Select Next to continue.

11 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Identifying Collateral Costs (cont.)

As you perform your cost analysis, make sure that the proposed treatment is consistent with the firm's treatment of similar costs under similar circumstances.

The cognizant government auditor will be able to assist you in determining whether the proposal correctly recognizes transportation costs consistent with the offeror's prescribed accounting practices.

I think I will ask the cognizant government auditor for assistance.

[D](#)

User Instructions: Select Next to continue.

11 of 28BackNext

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Identifying Related Costs

To ensure that sufficient materials are available for production of the item, the offeror might propose to purchase excess materials.

Estimates may include costs related to:

Overruns - purchase or production of more units than are required by the contract

Scrap - material that is no longer usable for the purpose for which it was purchased



User Instructions: Select Next to continue.

11 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

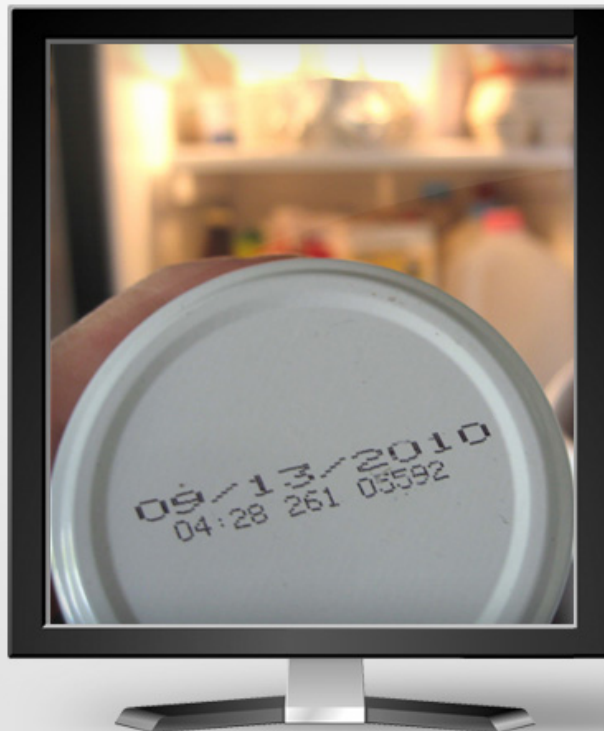
Identifying Related Costs (cont.)

Estimates of excess materials might also include costs related to **spoilage**. Some of the more common types of spoilage include:

Shelf-life - the length of time some materials retain their usable properties, after that time they must be discarded

Losses - discrepancies between inventory records and physical inventory

Obsolescence - most likely occurs when there is a large inventory that will meet needs for a long period of time



User Instructions: Select Next to continue.

11 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

Identifying Related Costs (cont.)

The cost of **defective parts** is another related cost that might be included in the offeror's estimates of excess materials.

Parts may be considered defective if they fail to meet required specifications. Depending on the severity of defectiveness, these parts may become:

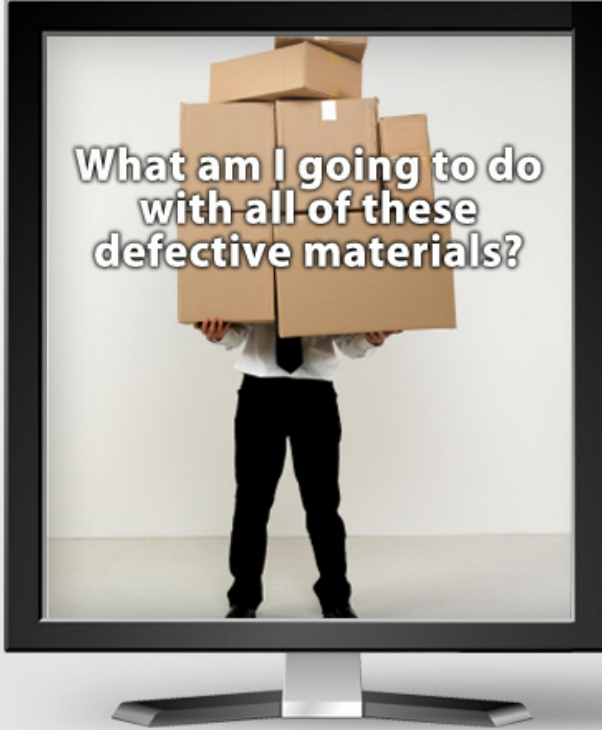
Scrap - if the defective part cannot be used for its intended purpose or made usable, it will be charged as scrap

Reworkable - sometimes parts can be corrected to meet specifications and become usable

Use As-Is - although the part does not meet all requirements, the defect does not affect its usability

User Instructions: Select Next to continue.

ResourcesGlossaryHelp



[D](#)

11 of 28BackNext

Analyzing Direct Material Costs

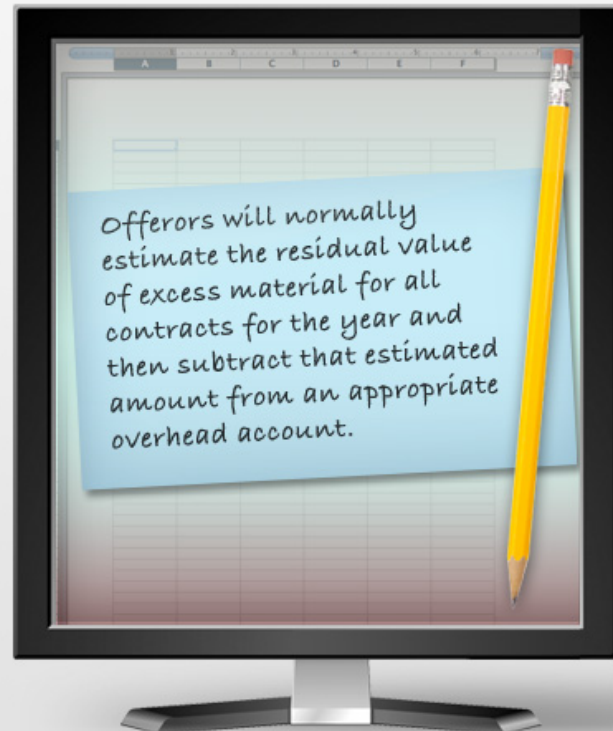
Identifying Related Costs (cont.)

Estimates of related costs are usually developed using a cost estimating relationship (CER) - a relationship between the cost and some independent variable related to the item being acquired or a related contract cost.

The proposal must provide adequate analysis and statistical data to identify and support any CER used in estimating direct material cost.

Remember that material overruns, scrap, spoilage, or defective parts will still have residual value. The offeror might use this material in producing other products, or sell it.

As a result, the estimated contract cost must be adjusted to consider that residual value.



User Instructions: Select Next to continue.

[D](#)

11 of 28

Back

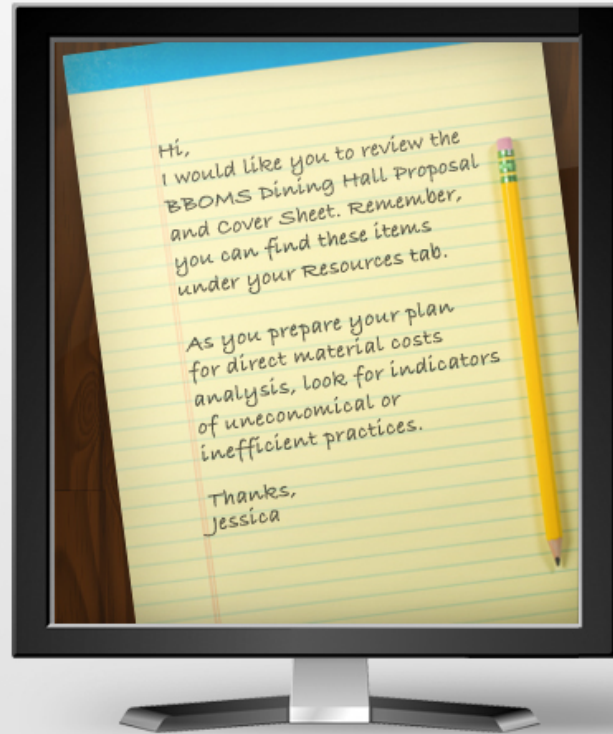
Next

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

A Note From Jessica

Let's continue with analyzing of direct material costs. Read the note to the right that Jessica has left for you.



User Instructions: Select Next to continue.

[D](#)

12 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Challenge Question #2

Which of the following statements is **TRUE** about the contractor's proposal you just reviewed? Select all of the correct answers.

- ☐ A. It is a summary-level estimate.
- ☐ B. It is a detailed estimate.
- ☐ C. The estimate contains some items that may be classified as other direct costs.
- ☐ D. The estimate does not contain any items that may be classified as other direct costs.

[Check Answer](#)

User Instructions: Select the correct answers and then select the Check Answer button.

13 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

Summary-level vs. Detailed Estimate

Here is a key point to consider as you prepare your plan for direct material costs analysis:

- Identify and evaluate the methodology used by the offeror to estimate direct material cost

Ask yourself:

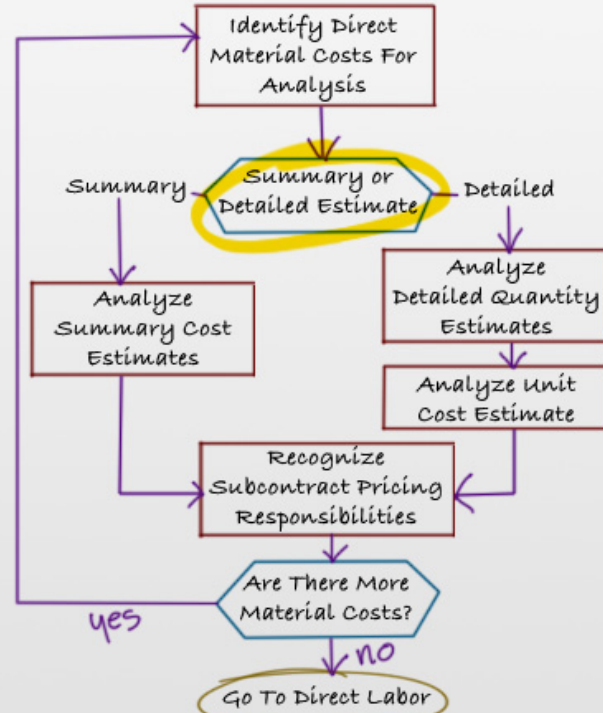
Is the estimate a summary-level or a detailed estimate?

Summary estimates are determined on a total-cost basis without the benefit of a detailed cost breakdown of material units and cost per unit.

Detailed-level estimates are determined based on estimates of the number of material units required and the cost per unit.

User Instructions: Select Next to continue.

[D](#)



13 of 28

Back

Next

Analyzing Direct Material Costs

Is the Methodology Appropriate?

When evaluating estimating methodology, ask yourself:

Does the methodology appear appropriate for the current estimating situation?

The method selected should use the information available to produce reasonable and equitable results.

If the methodology used by the offeror does not appear appropriate, consider using a different methodology to develop your pricing position.

User Instructions: Select Next to continue.

[Resources](#)[Glossary](#)[Help](#)

Something does not seem right with this estimating methodology.



[D](#)

13 of 28BackNext

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Is the Methodology Consistent?

When evaluating estimating methodology, ask yourself:

Is the estimating methodology consistent with estimating assumptions?

If any part of the estimate is not consistent with stated estimating assumptions, question the costs involved.



User Instructions: Select Next to continue.

[D](#)

13 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Identify Unnecessary Material

Here is another key point to consider as you prepare your plan for direct material costs analysis:

- Identify any proposed direct material that does not appear necessary to the contract effort

Ask yourself:

Is the material necessary?

The reasons for any direct material not obviously required for contract performance should be clearly described in the proposal.



User Instructions: Select Next to continue.

13 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Made vs. Purchased Items

To identify any proposed direct material that does not appear necessary to the contract effort, ask yourself:

Should the item be purchased, not made (or vice versa)?

Mark any item where the make-or-buy decision does not appear to result in the best value to the government.

There may be good reasons why such a decision will produce the best value, but the decision may also represent an attempt by the offeror to gain advantage at government expense.



User Instructions: Select Next to continue.

[D](#)

13 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Less Expensive Alternatives

Another question to ask yourself when identifying unnecessary materials:

Can less expensive material be substituted, in whole or in part?

Sometimes proposed material may be over-specified. Consider using value engineering techniques to identify less expensive parts.

It is possible that a commercial part might be available to replace a part made to unique government requirements.

[D](#)

User Instructions: Select Next to continue.

13 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Is the Material Acceptable?

To help identify unnecessary material costs, ask yourself:

Is the material acceptable under terms of the contract?

If the contract requires new materials, or material certifications in accordance with specifications or standards, then the proposed materials must meet those requirements.



User Instructions: Select Next to continue.

13 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Challenge Question #3

Which of the following questions should you ask to identify any proposed direct material that should be classified as an indirect cost? Select all of the correct answers.

- ☐ A. Is the material cost proposed and accounted for in a manner consistent with the contractor's disclosure statement and documented accounting practices?
- ☐ B. Is the material uniquely critical to contract performance?
- ☐ C. Is the material acceptable under terms of the contract?
- ☐ D. Has the offeror consistently treated material similar to the proposed material as direct material?

[Check Answer](#)

User Instructions: Select the correct answers and then select the Check Answer button.

14 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Identify Indirect Materials

As you prepare your plan for direct material costs analysis, be sure to:

- Identify any proposed direct material that should be classified as an indirect cost

Ask yourself:

Has the offeror consistently treated material similar to the proposed material as direct material?

If similar material has been treated as an indirect cost under similar circumstances, proposed material should likely also be an indirect cost.

If the offeror classifies similar material as a direct cost in one situation and as an indirect cost in a similar situation, there is a good chance that you are being double charged!

User Instructions: Select Next to continue.

[D](#)

14 of 28BackNext

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Is the Material Cost Consistent?

To identify any proposed direct material that should be classified as an indirect cost, ask yourself:

Is the material cost proposed and accounted for in a manner consistent with the contractor's disclosure statement and documented accounting practices?

Question any apparent inconsistencies. If you have any questions, check with the cognizant government auditor.



User Instructions: Select Next to continue.

14 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Identify Special Attention Costs

When planning for further analysis, consider the following key point:

- Identify any proposed direct material costs that merit special attention because of high-value or other reasons

Ask yourself:


Is any material estimate a large portion of the entire material cost estimate?

Many times a single estimate will be a large part of the entire estimate. That estimate will normally merit special attention because of the cost involved.

[Select here to view a chart that looks at items that merit special attention costs.](#) The purpose of this chart is to highlight the rented form system as a high dollar item.

User Instructions: Select Next to continue.

*Items that merit special attention?
I never heard of those costs.*



[D](#)

14 of 28BackNext

Identify Special Attention Costs - Windows Internet Explorer

http://performtech.com/dau_con/clc056/07/images/ca_07_01_0140_30_popTable.htm

Note: Pay attention to the high dollar items in the proposal in the chart below.

Item Descripton	Total	Price	Descripton
2 x 4 Ceiling Second Look	\$10,156.65	\$1,025.32	\$9,131.33
Cornice Boards 1x12 Pine	\$11,124.00	\$324.00	\$10,800.00
2 x 4 Ceiling Second Look	\$11,350.80	\$1,135.08	\$10,215.72
2 x 2 Ceiling Shadow Tile	\$13,967.05	\$1,396.71	\$12,570.35
Buy Studs 3 5/8" 20 Ga.	\$16,450.00	\$0.00	\$16,450.00
Purchase HM Doors & Frames	\$31,000.00	\$465.000	\$30,535.00
Rebar Purchase	\$38,750.00	\$4,650.00	\$34,100.00
4000 psi Concrete	\$45,600.00	\$3,192.00	\$42,408.00
Rented Form System 0-4'	\$68,568.50	\$2,194.19	\$66,374.31
	\$246,967.00	\$14,382.30	\$232,584.70

[Close Window](#)

Done Internet 100%

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Identifying Critical Materials

To identify any proposed direct material costs that merit special attention because of high-value or other reasons, ask yourself:

Is any material uniquely critical to contract performance?

Many times a specific material item is essential for contract performance.

Estimates for a critical item may merit special attention, because the offeror may be willing to pay any price for the material.



User Instructions: Select Next to continue.

14 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Document Material Costs Concerns

A final key point to consider when preparing for direct material costs analysis is to:

- Assure that preliminary concerns about material cost estimates are well documented

Ask yourself:

Have you identified material estimates that merit special attention?

If the answer is "yes," document the areas of concern for reference as you perform a more in-depth analysis.



User Instructions: Select Next to continue.

14 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Has the Offeror Answered your Concerns?

To assure that preliminary concerns about material cost estimates are well documented, ask yourself:

Has the offeror had an opportunity to answer your concerns?

Consider raising these concerns in fact-finding conversations with the offeror.

If the problem is an error in the proposal, bring the error to the offeror's attention so that it can be corrected prior to formal negotiations.




User Instructions: Select Next to continue.

14 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

ResourcesGlossaryHelp



REWINDPLAYCAPTIONS


Hi! I just stopped by to tell you that you did a great job identifying the points to consider as you prepare for direct material cost analysis.

User Instructions: Select Next to continue.

15 of 28BackNext

Analyzing Direct Material Costs

ResourcesGlossaryHelp



Next, I want you to focus your attention on determining the fairness and reasonableness of both summary-level and detailed quantity estimates. I'm heading to lunch so I'll see you later!

User Instructions: Select Next to continue.

15 of 28BackNext

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Challenge Question #4

Which of the following statements are points to consider when analyzing a **summary-level** estimate? Select all of the correct answers.

- ☐ A. Develop and document your pre-negotiation position on direct material quantities required to complete the contract.
- ☐ B. Give special attention to any direct material concerns identified during your preliminary review of the material mix.
- ☐ C. Determine if cost estimating relationships (CERs) used in the proposal were properly developed and applied.
- ☐ D. Develop and document your pre-negotiation position on direct material cost.

[Check Answer](#)

User Instructions: Select the correct answers and then select the Check Answer button.

16 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

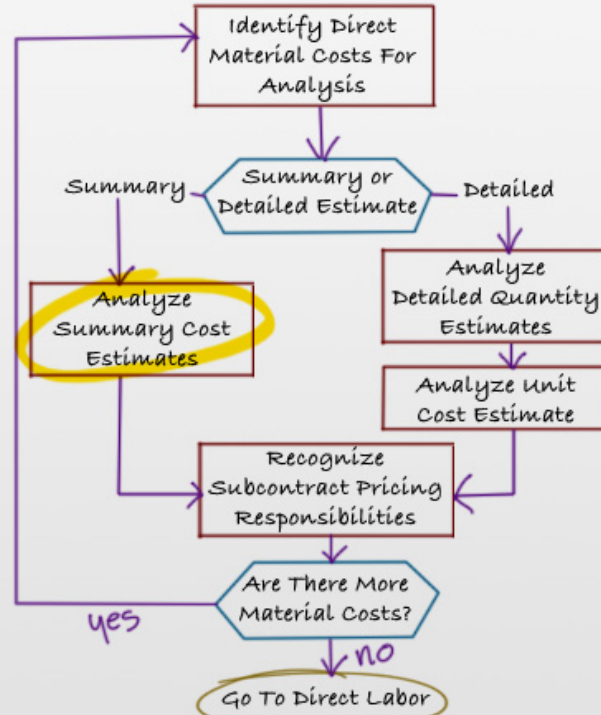
Analyzing Summary Cost Estimates

In a summary material cost estimate, material cost is estimated on a total cost basis without the benefit of a detailed cost breakdown of units and cost per unit.

Summary estimates may be round-table or comparison estimates.

Round-table estimates commonly use words such as "engineering estimate" or "professional judgment."

Comparison estimates involve the use of some form of comparison based on data from efforts completed or in progress.



User Instructions: Select Next to continue.

[D](#)

16 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

Are Summary Estimates Appropriate?

It is important to know the steps involved when analyzing a summary cost estimate.

- Give special attention to any direct material concerns identified during your preliminary review of the material mix. You also need to determine whether use of summary cost estimates is appropriate for the estimating situation.

Ask yourself:

Does the item cost warrant the expense of a detailed estimate?

The time and effort put into an analysis needs to be proportionate with the cost of the material involved.

User Instructions: Select Next to continue.

Resources Glossary Help

[D](#)

16 of 28 Back Next

Analyzing Direct Material Costs

Are Summary Estimates Appropriate? (cont.)

To determine whether the use of a summary cost estimate is appropriate for the estimating situation, ask yourself the following questions:

Do the cost accounting data provide a clear history?

If detailed cost data do not provide a clear material cost history, then summary estimating techniques may be the most viable alternative.

Would the summary-level analysis be as accurate as a detailed analysis?

If the summary-level estimate is as good as a detailed analysis, use it. It is more cost effective than a detailed analysis.

User Instructions: Select Next to continue.

Resources Glossary Help

Hmm...maybe I should use the summary-level estimate afterall.

[D](#)

16 of 28 Back Next

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Which Estimating Technique was Used?

As you conduct your analysis of a summary-level cost estimate, be sure to:

- Determine which summary estimating technique(s) was used in proposal development

Ask yourself:

Has the offeror estimated direct material cost using a cost estimating relationship (CER)?

Estimators can use a CER to estimate costs based on an established relationship between the cost and some independent variable. The independent variable may be a parameter of the item (size), or another contract cost (direct labor cost).



User Instructions: Select Next to continue.

16 of 28

[Back](#)

[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Which Estimating Technique was Used? (cont.)

To determine which summary estimating techniques were used, ask yourself:

Has the offeror estimated direct material cost using a direct comparison with the cost of a similar contract effort?

A direct comparison is a comparison with the cost of a similar contract effort.

The assumption is that contracts with similar material requirements will have similar material costs. If this assumption is valid, the estimator can use the historical cost to estimate the cost of the new contract.

When preparing the estimate, the estimator should consider the need to adjust historical costs for differences in the acquisition situation, and should clearly document the similarity in material requirements and the rationale for any adjustments.



User Instructions: Select Next to continue.

[D](#)

16 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Challenge Question #5

To determine if cost estimating relationships (CERs) used in the proposal were properly developed and applied, which of the following questions should you ask? Select all of the correct answers.

- ☐ A. Is there any trend in the relationship?
- ☐ B. Does the available information verify the existence and accuracy of the proposed relationship?
- ☐ C. Would use of a detailed estimate or direct cost comparison with actuals from a prior effort produce more accurate results?
- ☐ D. Does the CER estimate consider the changing value of the dollar?

[Check Answer](#)

User Instructions: Select the correct answers and then select the Check Answer button.

17 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Are CERs Properly Applied?

As you conduct your analysis of summary direct material cost estimates, you must determine if cost estimating relationships (CERs) used in the proposal were properly developed and applied.


Ask yourself the following questions related to the issues and concerns associated with CER development:

- Does the available information verify the existence and accuracy of the proposed relationship?**
- Is there any trend in the relationship?**
- Is the CER used consistently?**

User Instructions: Select Next to continue.

[D](#)

How do I determine if the CERs used in the proposal were properly developed and applied?



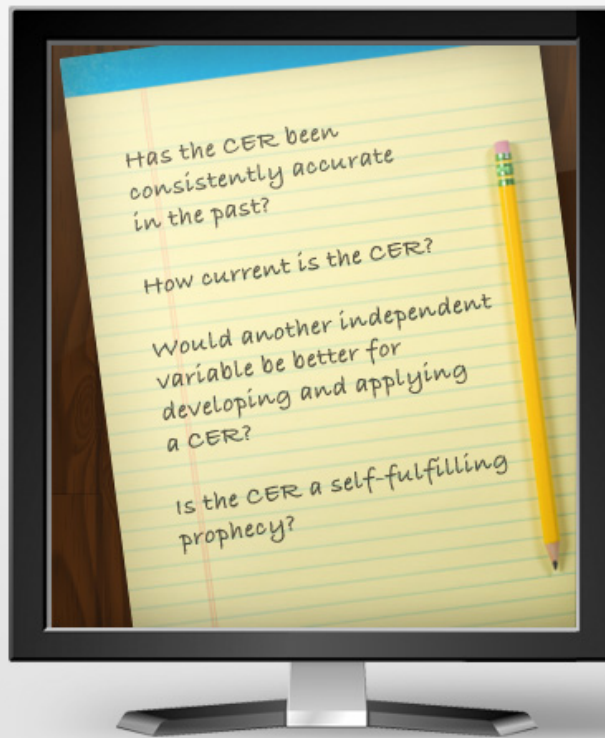
17 of 28BackNext

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Are CERs Properly Applied? (cont.)

Review the image to the right for more questions to consider regarding issues and concerns associated with CER development:



User Instructions: Select Next to continue.

[D](#)

17 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Are CERs Properly Applied? (cont.)

Two more questions to ask yourself when determining if CERs were properly developed and applied:

Would use of a detailed estimate or direct cost comparison with actuals from a prior effort produce more accurate results?

Does the CER estimate consider the changing value of the dollar?



User Instructions: Select Next to continue.

17 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Are Direct Comparisons Properly Applied?

As you conduct your analysis of summary direct material cost estimates, you must determine if direct comparisons used in the proposal have been properly developed and applied.

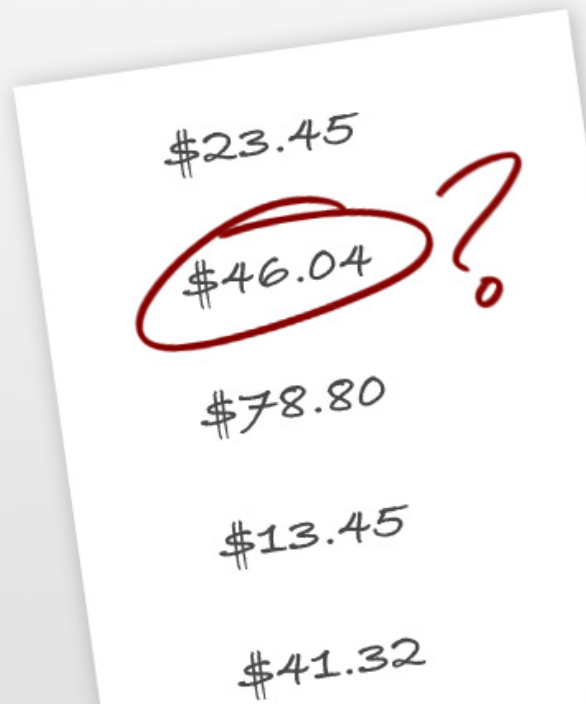
To determine this, ask yourself the following questions:

Is the basic nature of the new contract effort similar enough to the historical effort to make a valid comparison?

Does data analysis consider the changing value of the dollar?

Were there significant cost problems or inefficiencies in the historical effort that would distort the estimate on the new effort?

User Instructions: Select Next to continue.

[D](#)

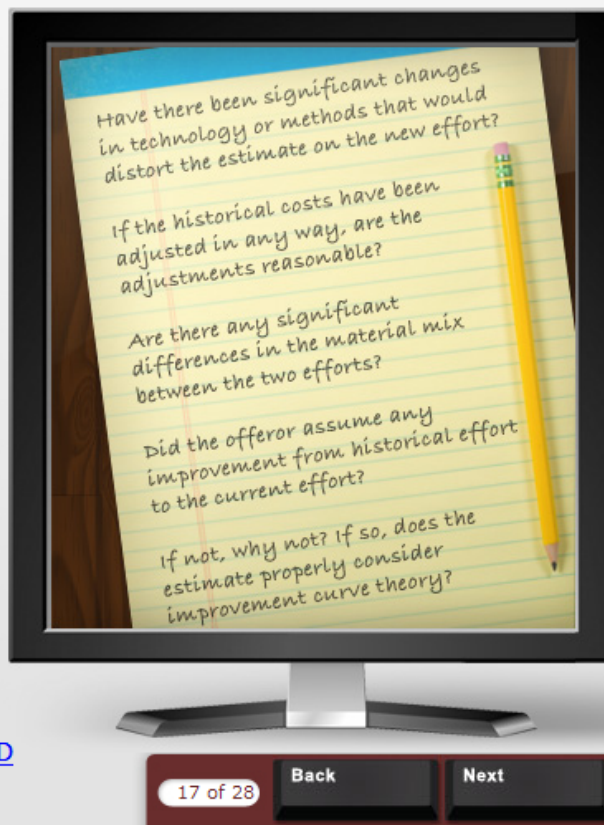
17 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

Are Direct Comparisons Properly Applied?

Review the image to the right for a few more important questions to ask to help you determine if direct comparisons have been properly developed and applied.



User Instructions: Select Next to continue.

[D](#)

17 of 28

Back

Next

Analyzing Direct Material Costs

Develop Your Pre-Negotiation Position

The final step for analyzing a summary cost estimate is:

- Develop and document your pre-negotiation position on direct material cost

If you **accept** the offeror's summary estimate - document that acceptance.

If you **do not accept** the summary estimate - document your concerns with the estimate and develop your own pre-negotiation position for costs covered by the estimate.

If you find information that would permit you to perform a more accurate analysis of material costs - use the available information.

User Instructions: Select Next to continue.

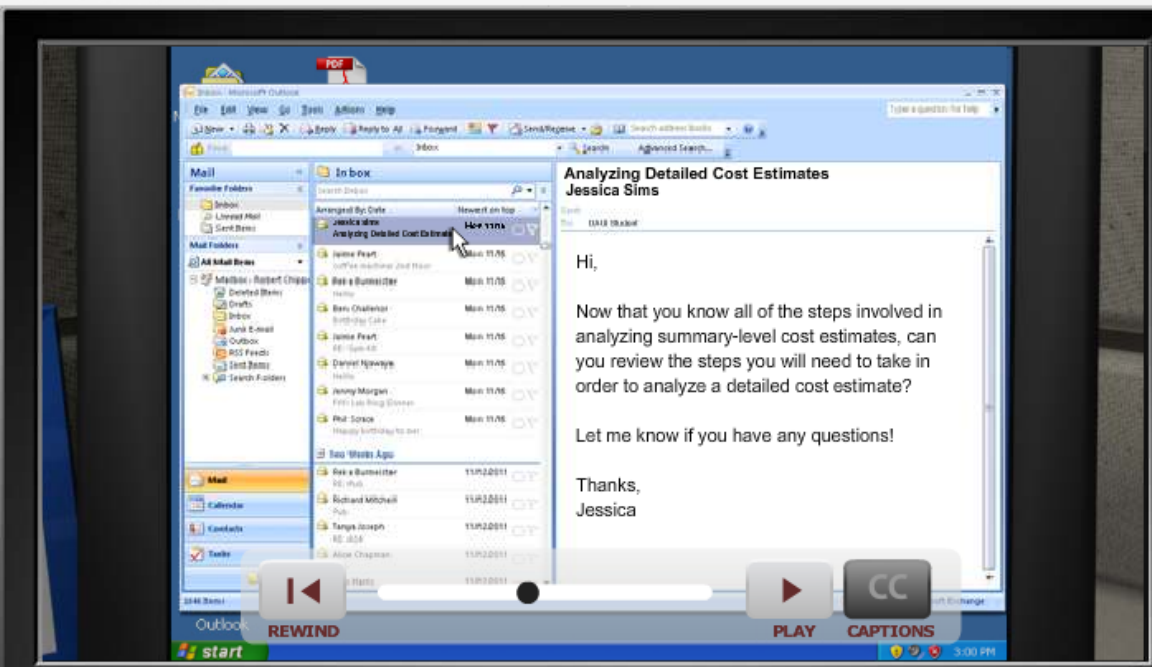
ResourcesGlossaryHelp

[D](#)

17 of 28BackNext

Analyzing Direct Material Costs

ResourcesGlossaryHelp



Analyzing Detailed Cost Estimates
Jessica Sims

Hi,

Now that you know all of the steps involved in analyzing summary-level cost estimates, can you review the steps you will need to take in order to analyze a detailed cost estimate?

Let me know if you have any questions!

Thanks,
Jessica

User Instructions: Select Next to continue.

18 of 28 Back Next

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Analyzing Detailed Cost Estimates
Jessica Sims

Hi,

Now that you know all of the steps involved in analyzing summary-level cost estimates, can you review the steps you will need to take in order to analyze a detailed cost estimate?

Let me know if you have any questions!

Thanks,
Jessica

Let me know if you have any questions! Thanks, Jessica

User Instructions: Select Next to continue.

18 of 28 Back Next

Analyzing Direct Material Costs


ResourcesGlossaryHelp

Challenge Question #6

Which of the following statements regarding analyzing detailed cost estimates are **TRUE**? Select all of the correct answers.

- ☐ A. Materials that will become part of the product are included but additional materials (overruns, scrap, spoilage, and defects) are excluded.
- ☐ B. A detailed cost estimate is more costly to develop and analyze than a summary estimate.
- ☐ C. When the contract is complex, there may be individual bills of material for different contract tasks or line items.
- ☐ D. For supply and construction contracts, the estimator will estimate base material requirements using contract drawings.

Check Answer



19 of 28BackNext

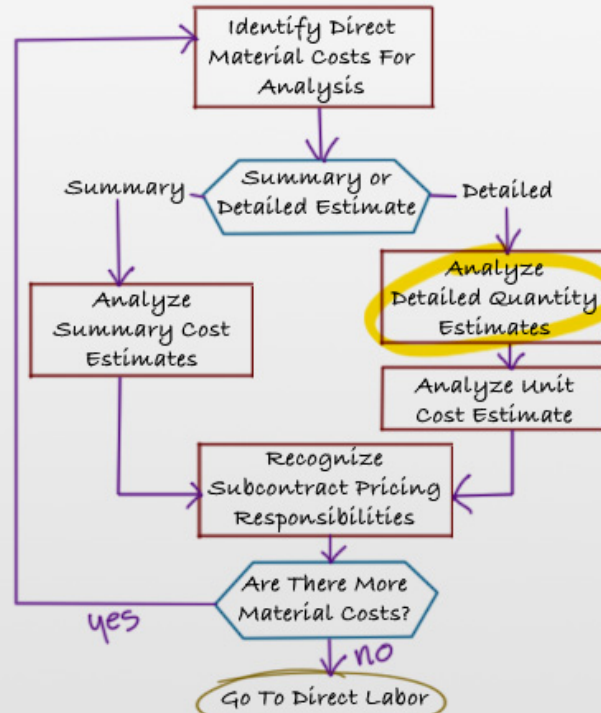
Analyzing Direct Material Costs

Analyzing Detailed Quantity Estimates

A detailed cost estimate is more costly to develop and analyze than a summary estimate. However, when properly completed, the accuracy of a detailed estimate should compensate for the additional cost.

To prepare a detailed direct material cost estimate the estimator must first prepare an estimate of the material quantities required to complete the contract and then estimate the unit price for that material.

Estimated material quantities include materials that will become part of the product and any additional materials such as overruns, scrap, spoilage, and defective parts.



User Instructions: Select Next to continue.

[D](#)

19 of 28

Back

Next

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

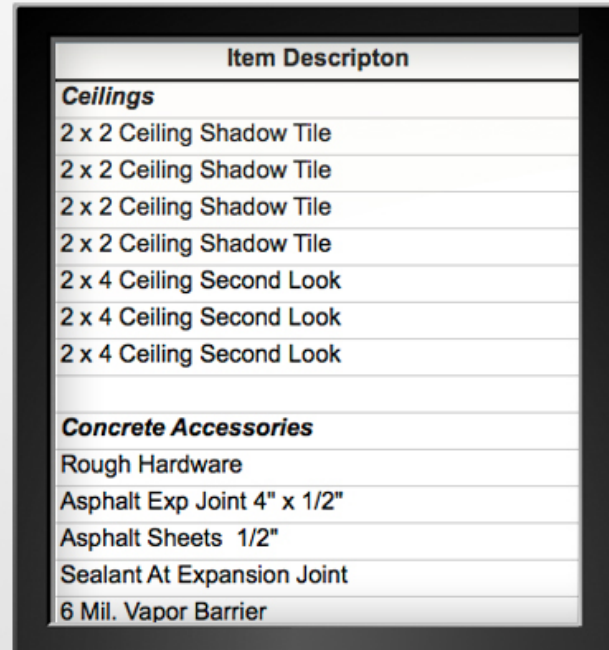
Bill of Materials

A bill of materials (BOM) is a listing of all of the materials (including part numbers and quantities) required to complete the contract.

When the contract is complex, there may be individual bills of material for different contract tasks or line items. If this is the case, the offeror must submit a consolidated BOM for all items, with a breakdown suitable for analysis.

The estimate must identify the item, the source, the quantity, and the price.

[Select here to view the contractor's BOM Proposal.](#)



Item Description
Ceilings
2 x 2 Ceiling Shadow Tile
2 x 2 Ceiling Shadow Tile
2 x 2 Ceiling Shadow Tile
2 x 2 Ceiling Shadow Tile
2 x 4 Ceiling Second Look
2 x 4 Ceiling Second Look
2 x 4 Ceiling Second Look
Concrete Accessories
Rough Hardware
Asphalt Exp Joint 4" x 1/2"
Asphalt Sheets 1/2"
Sealant At Expansion Joint
6 Mil. Vapor Barrier

User Instructions: Select Next to continue.

19 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

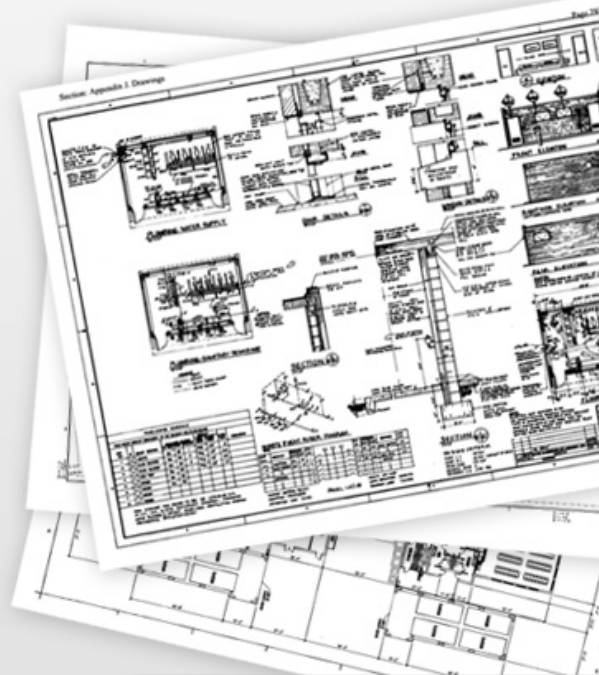
[Resources](#)[Glossary](#)[Help](#)

Bill of Materials (cont.)

For supply and construction contracts, the estimator should estimate base material requirements for the BOM using contract drawings and specifications.

Service contracts may not include drawings and specifications, but direct material quantity estimates will still be based on an analysis of contract requirements and offeror experience.

These quantity estimates may be based on a detailed analysis of contract requirements or on comparisons with the material quantities actually required to complete similar contracts.



User Instructions: Select Next to continue.

19 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Points to Consider

As you conduct your analysis of detailed direct material quantity estimates:

- Give special attention to any direct material quantity concerns identified during your preliminary review of the material mix

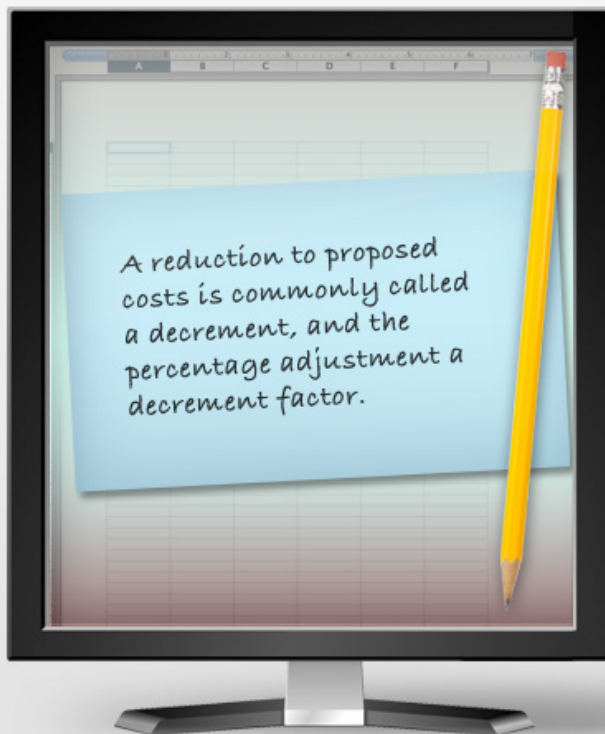
Also,

- Select a sampling strategy for analysis

For proposals with many items, you will probably need to limit your review to an item sample.

Stratified sampling procedures permit you to give more attention to high-value items, but still consider all BOM items.

You can then adjust item estimates based on analysis results.

[D](#)

User Instructions: Select Next to continue.

19 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Is the Base Estimate Reasonable?

Another point to consider when analyzing detailed quantity estimates is:

- Determine the reasonableness of the base estimate of direct material quantities required to complete the contract

The base quantity estimate is the quantity of material that will actually be used in the final product.

Technical personnel should be able to verify this quantity by comparison with drawings and other relevant contract requirements.



User Instructions: Select Next to continue.

19 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

Are the Adjustments Reasonable?

Always consider the following statement when conducting analysis of detailed material estimates:

- Determine the reasonableness of any adjustments to the base estimate of direct material quantities required to complete the contract

The actual direct material required to produce a product will likely exceed the material that will be included in the product, due to material overruns, scrap, spoilage, and defective parts.

These costs are normally estimated using cost estimating relationships based on the base estimates of direct material required to produce the product.

Your analysis should center on assuring that the estimate is reasonable.

User Instructions: Select Next to continue.

ResourcesGlossaryHelp

[D](#)

19 of 28BackNext

Analyzing Direct Material Costs

Are the Adjustments Reasonable? (cont.)

As you analyze any adjustments to the base bill of materials quantities, ask yourself:

If a cost estimating relationship is used to estimate adjustments, did the offeror consider the issues and concerns associated with CER development?

CPRG Volume 2, Quantitative Techniques for Contract Pricing identifies a series of questions related to issues and concerns that you should consider when evaluating any CER.

User Instructions: Select Next to continue.

[D](#)



Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

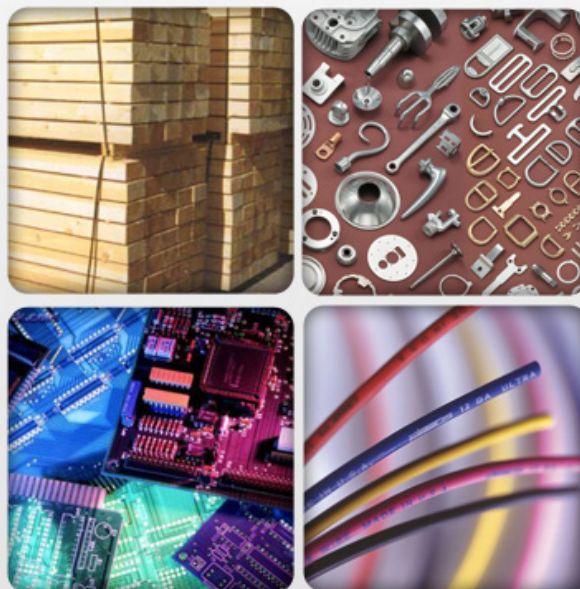
Are the Adjustments Reasonable? (cont.)

When determining the reasonableness of adjustments made to detailed direct material estimates, ask yourself:

Do you know what types of material costs are covered by the cost estimating relationship?

Material costs estimated using a CER must not duplicate material costs estimated using some other method.

A CER developed to estimate the cost of scrap for electronic components should normally not be used to estimate the cost of scrap for metal components.



User Instructions: Select Next to continue.

[D](#)

19 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

Are the Adjustments Reasonable? (cont.)

As you analyze any adjustments to the base bill of materials quantities, ask yourself:

Is the method used to apply the cost estimating relationship in the estimate consistent with the method used in rate calculation?

The independent variable used as a base for applying the CER must be the same as the base used to calculate the CER and the value must be calculated using the same procedures used in CER development.


Also ask yourself:

Does related estimate information indicate that the additional material amounts are consistent with past experience?

Consider the need for further analysis if a CER or other method of adjustment does not appear reasonable based on past experience.

User Instructions: Select Next to continue.

Resources Glossary Help



19 of 28 Back Next

Analyzing Direct Material Costs

Are the Adjustments Reasonable? (cont.)

When analyzing adjustments to determine reasonableness, ask yourself:

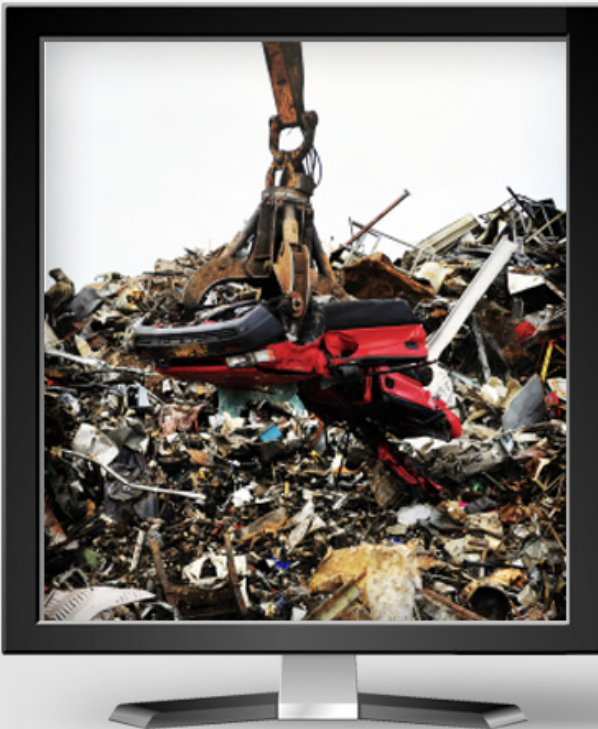
Are the materials, tolerances, and processes similar to those used to calculate the CER?

Items in the consolidated bill of materials might have different scrap rates.

Some materials tend to produce more scrap than others in similar situations due to tighter tolerances or different processes used.

User Instructions: Select Next to continue.

ResourcesGlossaryHelp



19 of 28BackNext

Analyzing Direct Material Costs

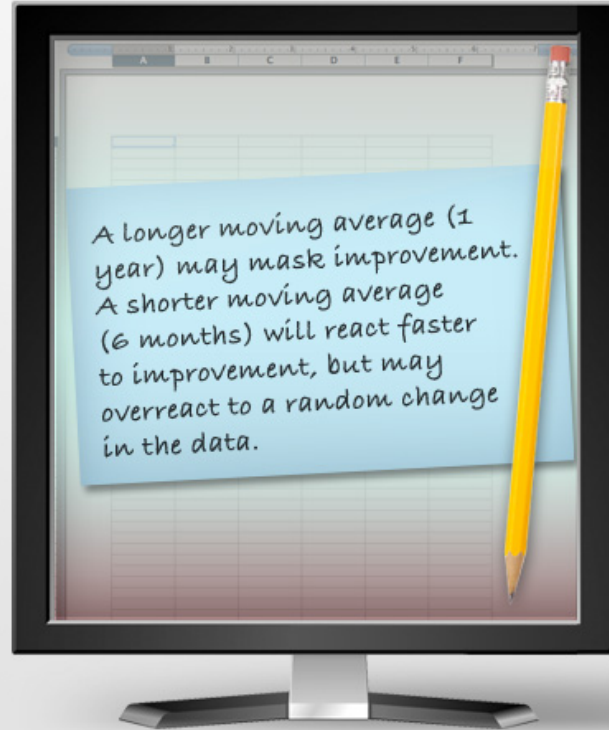
[Resources](#)[Glossary](#)[Help](#)

Are the Adjustments Reasonable? (cont.)

Another question to consider when analyzing adjustments to the base bill of materials quantities:

Are the data used to calculate the CER changing over time?

Experience with the same material and processes should reduce scrap rates. Many CERs that are used to estimate additional material requirements are developed using **moving averages** to smooth variations in the data.



User Instructions: Select Next to continue.

[D](#)

19 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Are the Adjustments Reasonable? (cont.)

To determine the reasonableness of any adjustments to the base estimate of direct material quantities, ask yourself:

Is the amount of the adjustment for material overruns, scrap, spoilage, and defective parts reasonable from a should-cost viewpoint?

Find out if there are potential process improvements that would reduce material cost considered by the adjustment.

Perhaps a different type, size, or shape of material would reduce the need for the adjustment. There might even be something the offeror can do to reduce the need for this adjustment.



User Instructions: Select Next to continue.

[D](#)

19 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

Are the Adjustments Reasonable? (cont.)

A final question to ask yourself when determining the reasonableness of adjustments made to the base bill of materials quantities:

Does the proposal consider the residual value of the material overruns, scrap, spoilage, and defective parts?

Material that cannot be used for its intended purpose is probably worth something, and the offeror must consider that residual value in the proposal.

User Instructions: Select Next to continue.

Resources Glossary Help

[D](#)

19 of 28 Back Next

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Analyzing Detailed Quantity Estimates

As you conduct your analysis of detailed direct material quantity estimates, your last step should be to:

- Develop and document your pre-negotiation position on direct material quantities required to complete the contract.

If you **accept** the offeror's quantity estimate - document that acceptance.

If you **do not accept** the quantity estimate - document your concerns with the estimate and develop your own pre-negotiation position for costs covered by the estimate.

If you find information that would permit you to perform a more accurate analysis of material costs - use the available information.

[D](#)

User Instructions: Select Next to continue.


What happens if I identify information that would help me perform a more accurate analysis of material costs?

Your analysis is not bound by the estimating methods used by the offeror. If you have information available, use it!

19 of 28BackNext

Analyzing Direct Material Costs

Resources Glossary Help



REWIND PLAY CAPTIONS

Hi, it's Jessica again. It looks like you've covered all of the points to consider when analyzing summary-level and detailed cost estimates.

User Instructions: Select Next to continue.

20 of 28 Back Next

Analyzing Direct Material Costs

ResourcesGlossaryHelp



There's one last thing I'd like you to think about when analyzing direct material costs - the analysis of unit cost estimates. Remember to use your Resources for more information. I'll talk to you soon! Bye

User Instructions: Select Next to continue.

20 of 28BackNext

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Challenge Question #7

You are trying to determine if the offeror used an appropriate base for estimating unit material costs under the current circumstances. Which of the following conditions should exist when the offeror bases estimates on **current quotes**? Select all of the correct answers.

- ☐ A. Work will be performed using materials not currently in inventory.
- ☐ B. Work will be performed by using materials in the existing inventory.
- ☐ C. Material prices may vary significantly from current inventory values.
- ☐ D. There is sufficient proposal preparation time for the offeror to solicit and receive vendor quotes.

[Check Answer](#)

User Instructions: Select the correct answers and then select the Check Answer button.

21 of 28

[Back](#)[Next](#)

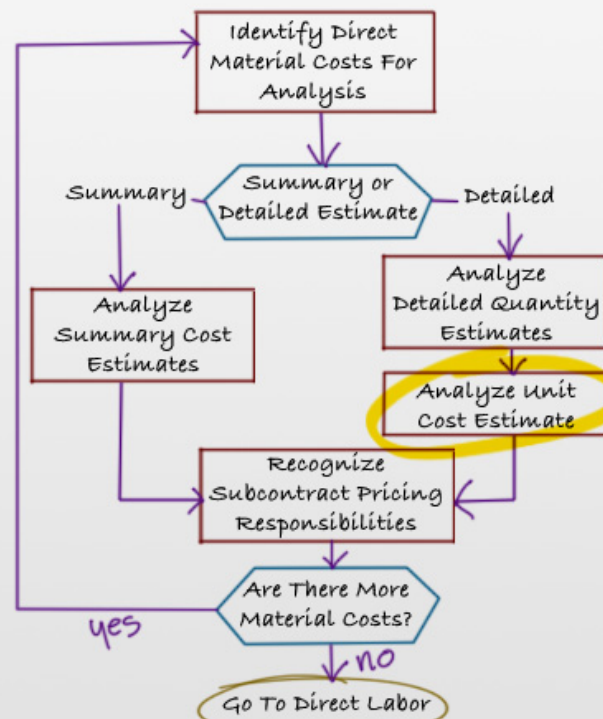
Analyzing Direct Material Costs

Analyzing Unit Cost Estimates

After you have established the quantity of material required to complete the contract, you must analyze the proposed unit costs. As you conduct your analysis:

- Give special attention to any direct material unit cost concerns identified during your preliminary review of the material mix.

This point to consider should be starting to sound familiar. It is very similar to the first points to consider when analyzing summary-level and detailed quantity estimates.



User Instructions: Select Next to continue.

[D](#)

21 of 28

Back

Next

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Is the Estimate Base Used Appropriately?

When analyzing unit cost estimates:

- Determine if the offeror used an appropriate base for estimating unit material costs.


There are three general bases commonly used for estimating direct material unit prices for future contract performance.

[Select here to view a table as you determine whether the base used by the offeror is appropriate under the circumstances.](#)

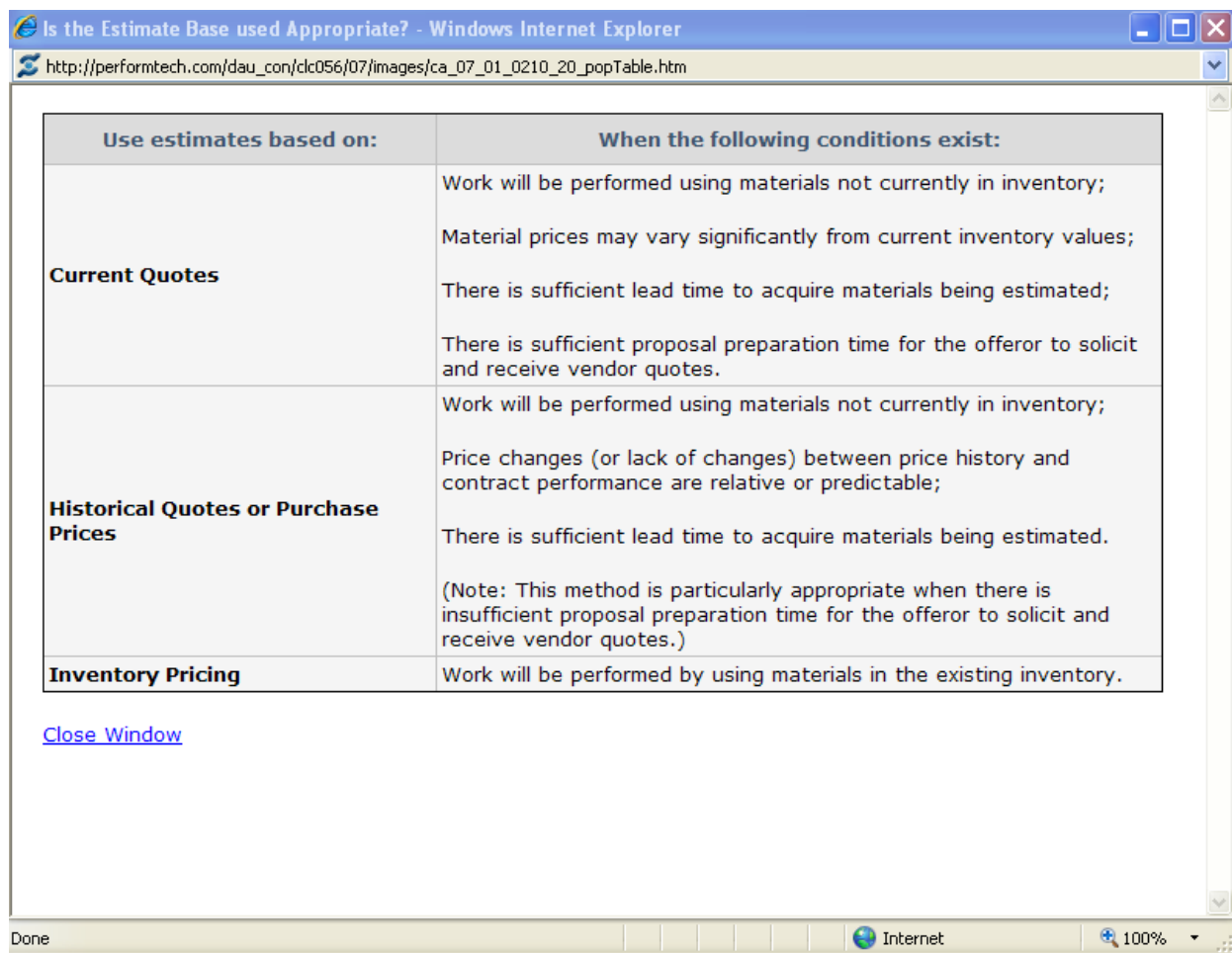
User Instructions: Select Next to continue.

[D](#)

21 of 28BackNext



How do I determine whether the base used by the offeror is appropriate under the circumstances?



Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Are the Quantities Necessary?

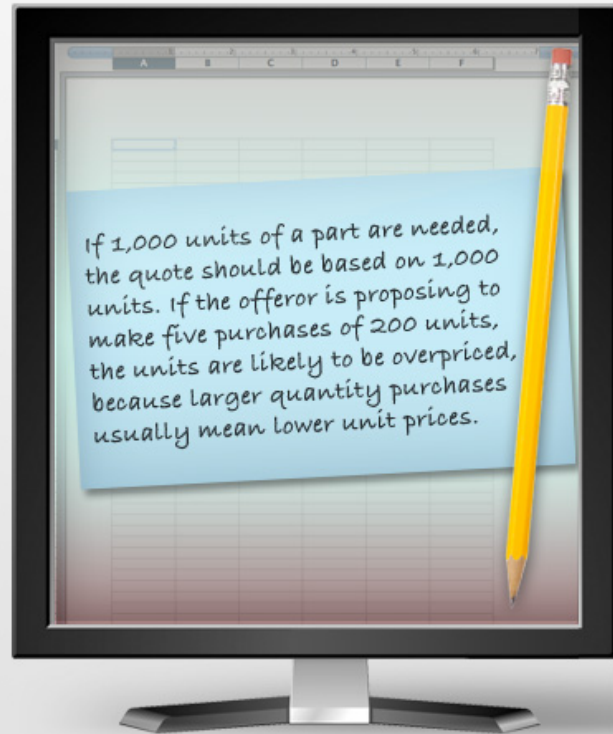
As you evaluate the reasonableness of material unit cost estimates based on current quotes, ask yourself:

Are the quotes for quantities required to complete the contract?

Make sure the vendor quotations match the quantities necessary for the proposed work.

There are two general exceptions to this rule:

1. If the items are used on more than one contract, quantities for all parts required should be combined in order to obtain the best possible prices.
2. If the cost of holding the product exceeds the potential savings from quantity procurement.



User Instructions: Select Next to continue.

[D](#)

21 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Probable Price Reductions

While evaluating the reasonableness of material unit cost estimates based on current quotes, ask yourself:

Did the proposal consider probable negotiated price reductions?

If the offeror has a history of negotiating reductions from subcontract price quotes, the proposed material price should reflect the historical proposal reduction (decrement).

Most contractors will try to negotiate reductions even with competitive quotes.

If the proposal did not consider negotiated price reductions, consider developing your own decrement factor.

User Instructions: Select Next to continue.

Techniques the offeror may employ to reduce quoted prices include:

- ✓ Ask vendors for final proposal revisions.
- ✓ Continue negotiations
- ✓ Switch to a lower priced vendor
- ✓ Increase order to gain quantity discounts

21 of 28 Back Next

Analyzing Direct Material Costs

Are Subcontract Terms Considered?

It is important to ask the following question when analyzing current quotes:

Did the proposal properly consider subcontract terms and conditions?

Sometimes, special conditions between the offeror and vendor result in savings to the offeror. These savings should be passed on to the government. Some examples include:

- Quotations with escalation already included
- Quantity discount rebates
- Priced options

User Instructions: Select Next to continue.

[Resources](#)[Glossary](#)[Help](#)



21 of 28[Back](#)[Next](#)

Analyzing Direct Material Costs

More Points to Consider when Analyzing Current Quotes

When analyzing estimates based on current quotes, ask yourself:

Has the prime contractor completed subcontract negotiations?

It is harder to negotiate price reductions after the offeror has agreed to a price.

Will some (or all) of the contract material come from existing inventory?

Inventory value may be less than current market.

Are there any other significant price-related factors that should be considered in estimating direct material unit cost?

For example, if a quote includes a surface transportation cost to the prime's plant, do not accept additional surface transportation estimates for that material.

User Instructions: Select Next to continue.

ResourcesGlossaryHelp



21 of 28BackNext

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Estimates Based on Historical Quotes

Another point to consider when analyzing unit cost estimates is:

- Determine the reasonableness of material unit cost estimates based on historical quotes or purchase prices

Ask yourself:

Was the historical quote or subcontract price reasonable?

Be cautious as you review material unit cost estimates based on vendor quotes or contract prices paid by the prime contractor.

Such estimates **assume** that the historical price was reasonable. That may not be true.

User Instructions: Select Next to continue.

[D](#)

21 of 28BackNext



I'm not sure about this estimate. I am going to review the offeror's subcontract files and related market information.

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Review other Historical Quotes

As you evaluate the reasonableness of material unit cost estimates based on historical quotes, consider the answers to the following questions:

Are there other historical quotes or subcontract prices that support or refute the reasonableness of the estimated price?

Verify that the subcontract price quote used by the offeror is not unusually high (or unusually low) for the quantity required.

Are current material item requirements the same as the historical requirements?

Changes in specifications can affect material prices, historical prices must be adjusted accordingly.



User Instructions: Select Next to continue.

21 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

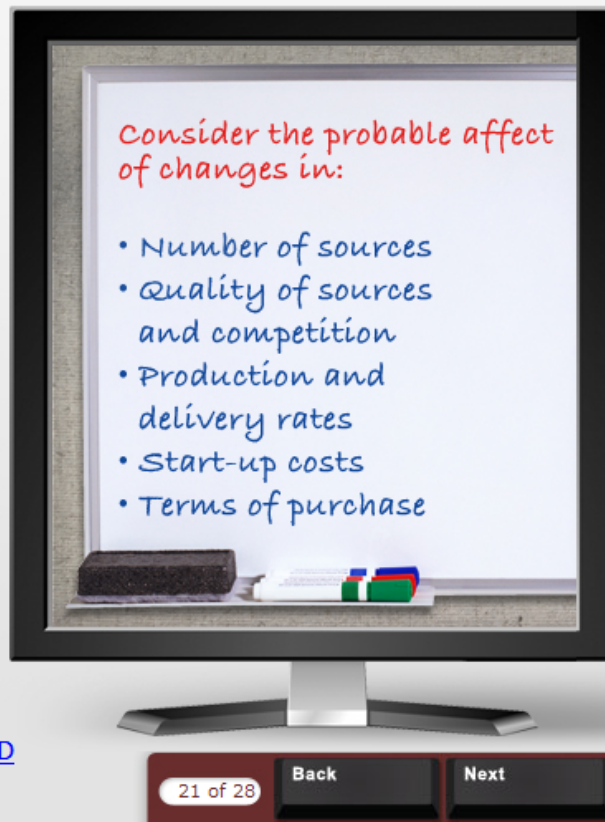
Understanding the Contractor's Acquisition

You need to understand the contractor's acquisition situation as it existed in the previous purchase and how the current acquisition situation differs.

Ask yourself:

How has the offeror's specific purchasing situation changed?

Review the graphic to the right.



User Instructions: Select Next to continue.

Analyzing Direct Material Costs

Changes in Item Status and Economy

Here are three more questions to ask yourself when analyzing historical quotes:

Has the item's production status changed?

Item prices typically decrease when a part is in continuous production. If the item is no longer produced, the vendor may incur start-up costs to begin manufacturing the item again.

How has the general economic situation changed?

Economic changes are reflected in the general level of inflation or deflation related to the material item.

Is there more recent pricing information available?

The estimators may still be relying on historical costs even though the firm's buyers have obtained current quotes and prices.

User Instructions: Select Next to continue.

Resources Glossary Help

[D](#)

21 of 28 Back Next

Analyzing Direct Material Costs

ResourcesGlossaryHelp

Unit Cost Estimates Final Points to Consider

The final points to consider when analyzing unit cost estimates:

- Determine the reasonableness of interorganizational transfers


Materials, supplies, or services that are sold or transferred between divisions, subsidiaries, or affiliates require special analysis because any profit included in an interorganizational transfer permits a contractor to pyramid profits by including profit in contract costs.

- Develop and document your prenegotiation position on unit costs for direct materials

[D](#)

User Instructions: Select Next to continue.

It's time to develop and document my prenegotiation position on unit costs for direct materials.



21 of 28 Back Next

Analyzing Direct Material Costs

Recognize Subcontract Pricing Responsibilities

The term **privity of contract** refers to the direct relationship that exists between contracting parties.

If the government has a contract with the prime contractor, there is privity of contract between the government and the prime contractor.

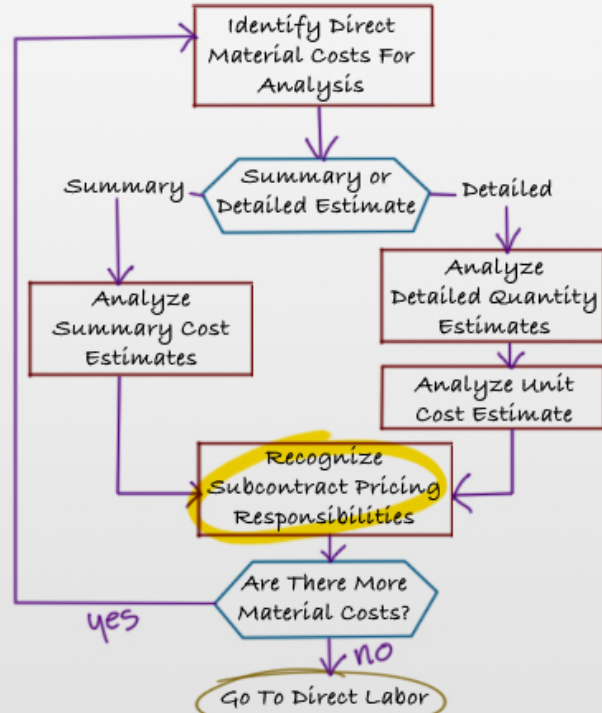
If the prime contractor has a contract with its subcontractors, privity of contract exists between the prime contractor and its subcontractors.

If the government does not have a contract with any subcontractor, no privity of contract exists between the two parties. If no privity of contract exists, you cannot:

- Negotiate directly with the subcontractor
- Direct the subcontractor to take any action

User Instructions: Select Next to continue.

D



21 of 28

Back

Next

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Challenge Question #8

Did the contractor use the appropriate method of inventory pricing (FIFO) in pricing the proposal?

- ☐ A. Yes, according to the contractor's disclosure statement, TTS uses a FIFO method to price inventory.
- ☐ B. No, the contractor must use the weighted average method of inventory pricing.
- ☐ C. No, the contractor's disclosure statement indicates the company uses a LIFO method of inventory pricing.
- ☐ D. Yes, the contractor can price inventory in any manner he or she wishes.

[Check Answer](#)

User Instructions: Select the correct answer.

22 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Reasonableness of Inventory-based Estimates

Another good point to consider when analyzing unit cost estimates:

- Determine the reasonableness of material unit cost estimates based on inventory pricing.

When the firm intends to use existing inventory to perform the contract, the direct material estimate should be based on one of the five acceptable methods of inventory pricing:

1. **First-in-first-out (FIFO)** - the first unit into the inventory is the first unit to be drawn out
2. **Last-in-first-out (LIFO)** - last or most recent unit received will be the first drawn out



User Instructions: Select Next to continue.

22 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Acceptable Methods of Inventory Pricing

The last three acceptable methods of inventory pricing are:

3. **Weighted average** - prices are recalculated at designated times during the year. Calculated by dividing the total cost of the inventory on-hand by the number of units on-hand.
4. **Moving average** - calculated in the same way as a weighted average except that the calculation is done every time there is a new addition to inventory.
5. **Standard cost** - value of inventory equals the number of units times the unit standard cost.



User Instructions: Select Next to continue.

22 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Analyzing Subcontract Quotes

As you evaluate the reasonableness of estimates based on current quotes, consider these final questions:

What is the nature and adequacy of the subcontract price competition?

When evaluating subcontract competition, ask the same questions that you would ask in evaluating offers for a government contract.

How do quotes compare with commercial prices, historical prices, pricing yardsticks, or independent government estimates?

Be wary of subcontract quotes that are substantially different than other estimates. Ask the offeror to explain the differences and justify the reasonableness of the quoted prices.

[D](#)

User Instructions: Select Next to continue.

23 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Analyzing Subcontract Quotes (cont.)

For the BBOMS dining hall proposal, TTS competed the subcontractor portion and received three bids from Elite Construction Services, Global Construction Services and Sundstrand Services.

The subcontract was awarded to Elite Construction Services at a price of \$643,834.38. Since this was based on Adequate Price Competition, you accept the proposed amount for the subcontracted portion of the Materials and Subcontracts Cost Element.

BID RESULTS IFB Number 11-BBOMS-A1 BBOMS Dining Hall Renovation Construction Services					
Name	Street Address	City	State	Zip Code	Total Price
Elite Construction Services	1234 Main Street	Sedona	CA	43234	\$643,834.38
Global Construction Services	34 Embacario Drive	Berkeley	CA	94702	\$655,596.37
Sundstram Services	234 Dew Drop Mountain Drive	Ft Collins	CO	80521	\$686,695.73

User Instructions: Select Next to continue.

24 of 28

[Back](#)[Next](#)

Analyzing Direct Material Costs

[Resources](#)
[Glossary](#)
[Help](#)

Prenegotiation Amount

This prenegotiation amount is what is entered into your Berent's Dining Hall spreadsheet.

The amount in cell B15 is the value you would enter for direct material costs.

	A	B	C	D	E	F	G	H	I	J	K
1	Subcontracts	Total	Rate	Factor							
2	Architect I	\$ 23,114.00	\$ 44.45	0.25							
3	Architectural Drafter I	\$ 13,660.40	\$ 26.27	0.25							
4	Plumber I	\$ 24,209.33	\$ 35.27	0.33							
5	HVAC Mechanic I	\$ 24,209.33	\$ 35.27	0.33							
6	Electrician I	\$ 23,564.11	\$ 34.33	0.33							
7	Carpenter I	\$ 94,970.51	\$ 34.33	1.33							
8	Laborer 2	\$ 124,633.60	\$ 29.96	2.00							
9	Subtotal Subcontracts:	\$ 328,361.28									
10	Payroll Taxes and Fringe Benefits	\$ 180,598.70	55%								
11	Total Subcontracts:	\$ 508,959.98									
12	G&A	\$ 76,344.00	15%								
13	Subtotal inc G&A	\$ 585,303.98									
14	Profit	\$ 58,530.40	10%								
15	Total incl Profit	\$ 643,834.38									
16											

User Instructions: Select Next to continue.

[D](#)

25 of 28

[Back](#)
[Next](#)

Analyzing Direct Material Costs

[Resources](#)
[Glossary](#)
[Help](#)

Prenegotiation Amount

This prenegotiation amount is what is entered into your Berent's Dining Hall spreadsheet.

The amount in cell E8 is the value that is automatically populated from cell B15 for direct material costs.

	A	B	C	D	E	F	G	H	I
1		Contractor's Proposal			Government Objective			Negotiated	
2		Cost Elements	Proposed Amount		Pre-negotiation Amount	Cost Data Analysis	Rates		Pre-negotiation Amount
3		Material and Subcontracts							
4		Purchased Parts & Raw Material	\$ 412,805.99		\$ 382,655.89				
5									
6		Scrap @ 5% of PP/RM	\$ 20,640.30		\$ 17,219.52	Scrap Rate	4.50%		\$ -
7									
8		Subcontracts	\$ 643,834.38		\$ 643,834.38				
9									
10		Total Material Costs	\$ 1,077,280.67		\$ 1,043,709.78				\$ -
11									
12		Direct Labor	\$ 144,000.00		\$ 143,000.00				
13									
14		Labor Overhead @ 135%	\$ 194,400.00		\$ 193,050.00	Direct Labor Overhead Rate	135%		\$ -
15									
16		Other Direct Costs	\$77,665.97		\$86,932.36				
17									
18		Subtotal	\$ 1,493,346.64		\$ 1,466,692.14				\$ -
19									
20		General & Administrative							

User Instructions: Select Next to continue.

[D](#)

26 of 28

[Back](#)
[Next](#)

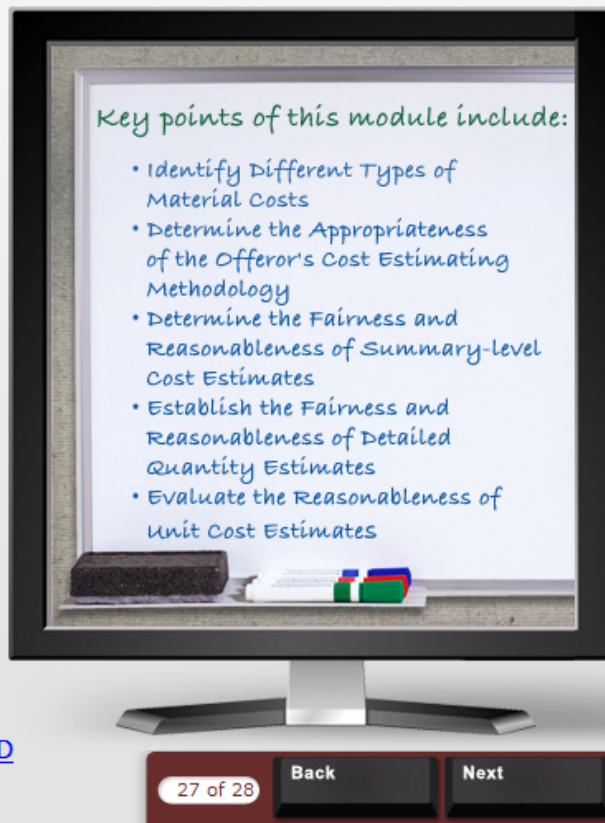
Analyzing Direct Material Costs

[Resources](#)[Glossary](#)[Help](#)

Summary

Congratulations! You have completed this module that discussed analyzing direct material costs and explained the steps involved in the flowchart of direct material costs analysis.

Review the graphic on the right to see the key points for this module.



User Instructions: Select Next to continue.

[D](#)


Analyzing Direct Material Costs

ResourcesGlossaryHelp

Summary (cont.)

Now that you have completed this module, you should be able to:

- Identify the different types of material costs
- Determine the appropriateness of the offeror's cost estimating methodology
- Determine the fairness and reasonableness of summary level cost estimates
- Establish the fairness and reasonableness of detailed quantity estimates
- Evaluate the reasonableness of unit cost estimates



User Instructions: Select the next module from the Table of Contents to continue.

28 of 28BackNext