



What to Do if Your Purchasing Practices Are Not Providing Should be Costs Part 2

Execution

Implementing projects that improve the bottom line

- Savings roadmaps with specific cost savings actions for each commodity
- Should-be cost model development
- Strategic sourcing implementations for sustainable savings

Technology

Unlocking savings with big data analytics for purchasing

- E-sourcing tool simplifies quoting and supplier management
- Develops should-be cost models for side-by-side quote comparison
- Identify opportunities for savings based on variance analysis of supplier quotes

People

Enhancing the capabilities of your purchasing team

- Purchasing Placement (direct hire or contract)
- Buyer skill development training:
 - Strategic negotiations
 - Commodity leadership
 - Understanding and managing costs

We help clients build knowledge & implement bottom line savings.



Three Ways We Help Clients

1

Turn-key Projects that provide the maximum leverage of our expertise and time

2

Execute-and-Mentor where we deliver the early stages and guide the client's staff to complete the project while internalizing capabilities

3

Technology Transfer approach that relies on the client organization to execute





Welcome to the Webinar

Attendees will be in listen only mode

A recording of this presentation and the slides will be available on the APD Website

Webinar attendees who complete the webinar feedback survey will receive the slides by email



Today's Presenter:



Jeff Burris

Principal, Advanced Purchasing Dynamics

- ▶ >30 years manufacturing purchasing experience
- ▶ Founded APD in 2004
- ▶ Helps clients make their investment in purchasing a competitive advantage



Jon Homrich

Client Support,
Advanced Purchasing Dynamics

- ▶ Project Management Leadership for Consulting and ProcureForce Implementation
- ▶ Helps clients make their investment in purchasing a competitive advantage

- ▶ Review why models are used.
- ▶ Build awareness of how others are approaching should be costing using:
 - ▶ Historical/current pricing catalogues
 - ▶ Single variable/linear price models
 - ▶ Multivariant regression models



What to Do if Your Purchasing Practices Are Not Providing Should be Costs – Part 1

- ▶ Available on demand:



<http://www.apurchasingd.com/knowledge-center/on-demand-webinars/>

- ▶ Building manufacturing process cost models
 - ▶ Creating optimal detailed cost breakdowns
 - ▶ Getting accurate information on quotes
 - ▶ Using supplier quote information to build manufacturing process cost models



April 19 Workshop

Creating Should- Be Cost Models



Join APD for an in-depth workshop on developing and managing should-be cost models

- ▶ April 19, 2:00pm – 5:00pm
- ▶ Reception afterwards
- ▶ Southfield Best Western Premier

Participants get excel workbooks with step by step directions.

Unlock Supplier Cost Data for Bottom Line Savings



ProcureForce is APD's technology platform that provides buyers with a direct look into supplier cost structures, enabling organizations to build and apply should-be cost models to achieve unparalleled savings.

Sourcing is much more efficient with built-in E-Sourcing functionality, and buyers have the analytics at their fingertips to collaborate with suppliers to optimize costs, both on existing products and new programs.

<http://www.procureforce.co/>



- ▶ Webinar Survey – Complete if you want the slides from today.
- ▶ Associated White Papers – reply
- ▶ Link to Info on the Workshop



What to Do if Your Purchasing Practices Are Not Providing Should be Costs Part 2



Why Do We Need Should be Costs?

- ▶ Serve as the basis for negotiating pricing with suppliers.
- ▶ Provide reasonably accurate predictions of costs that can be used in new-business pursuit and design optimization.



Why Don't We Just Go to the Suppliers?

- ▶ No time
- ▶ Too many requests
- ▶ 90% of the requests are never put into production
- ▶ Don't want to set pricing expectations



Manufacturing Process Cost Models

- ▶ Identify the processes and associated costs used in manufacturing to create a should-be costs.

- ▶ Cost Catalogs, Linear and Multivariant Models
 - ▶ Fast
 - ▶ Do not require supplier participation

- ▶ However
 - ▶ Build limited knowledge
 - ▶ Less accurate than manufacturing models



3 Steps to Manufacturing Process Models

- ▶ Create optimal cost breakdowns
- ▶ Work to ensure supplier quote accuracy
- ▶ Use a combination of regression and supplier cost detail to create should-be models



Optimal Cost Breakdowns

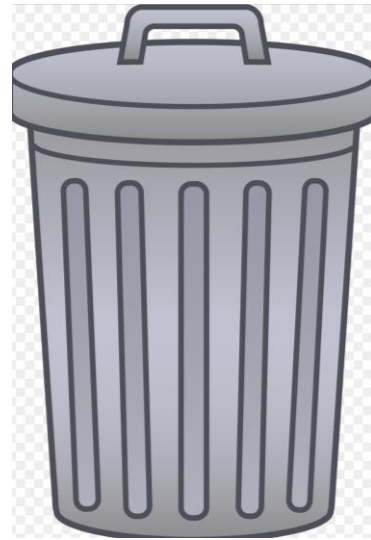
- ▶ Include part attributes
- ▶ Commodity specific
 - ▶ Cost accounting practices differ
 - ▶ Process metrics differ (cycle time vs. machine hours)



Breakdowns Should Include

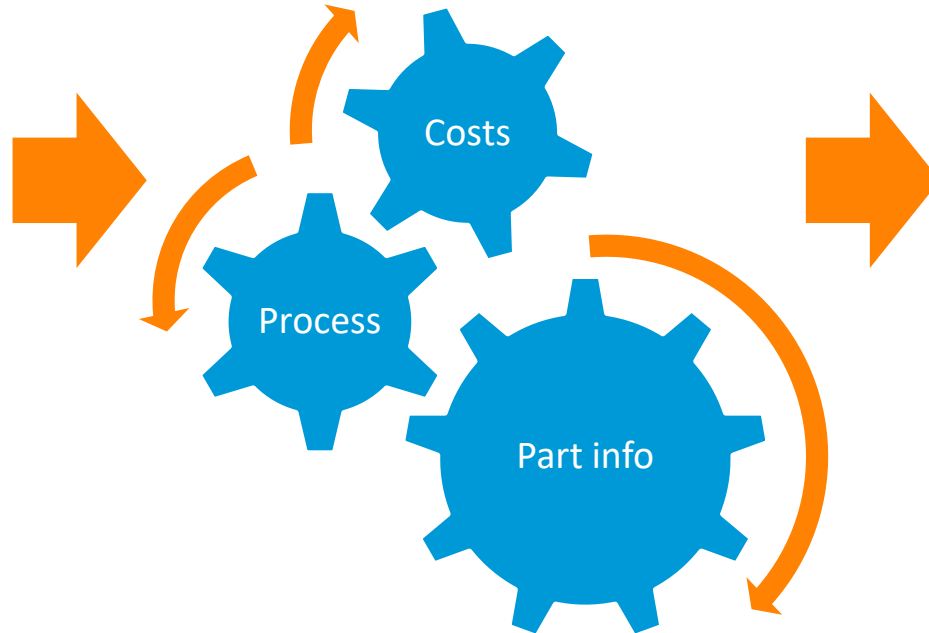
- ▶ Specific raw material types, gross and net weights
- ▶ Suppliers and supplier locations for raw material, services and purchased components
- ▶ Accounting for scrap sale/reuse
- ▶ Gross and net processing times
- ▶ Hourly base and fully fringed labor rates
- ▶ Fixed and variable overhead rates

Ensure Quote Accuracy



**Garbage
In**

Perfect Model



**Garbage
Out**

Ensure Accuracy



- ▶ Communicate accuracy expectations.

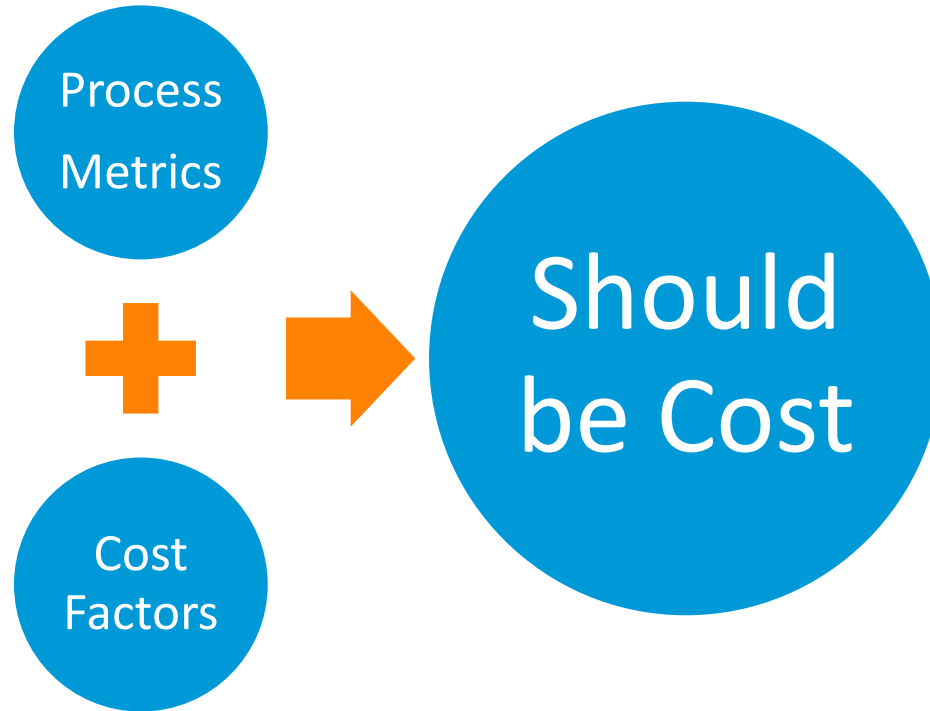
- ▶ Analyze in detail.



- ▶ Provide feedback without providing competitors' information.
- ▶ Severely limit multi round bidding.
- ▶ Cross reference to quality documentation (PPAP, Control Plans and run at rate studies).
- ▶ Verify when plant visits are conducted.



Manufacturing Process Should be Model





Process
Metrics

- ▶ Machine sizes
- ▶ Cycle times
- ▶ Material usage rates
- ▶ Machine efficiency rates

- Estimate with
- ▶ Linear
 - ▶ Multivariant



Multivariate Cycle Time Calculator

| Attribute | | Regression Coefficient | Cycle Time |
|-----------------------|-----|------------------------|-------------|
| | | | 0.090 |
| Net Part Weight (lbs) | 2.5 | 0.222 | 0.555 |
| Length (cm) | 9 | 0.22 | 1.980 |
| Width (cm) | 5 | 0.165 | 0.825 |
| Thickness (cm) | 0.4 | 3.423 | 1.369 |
| Cycle Time | | | 4.82 |



Cost Factors

- ▶ Labor Rates
- ▶ Overhead Rates
- ▶ Material Costs

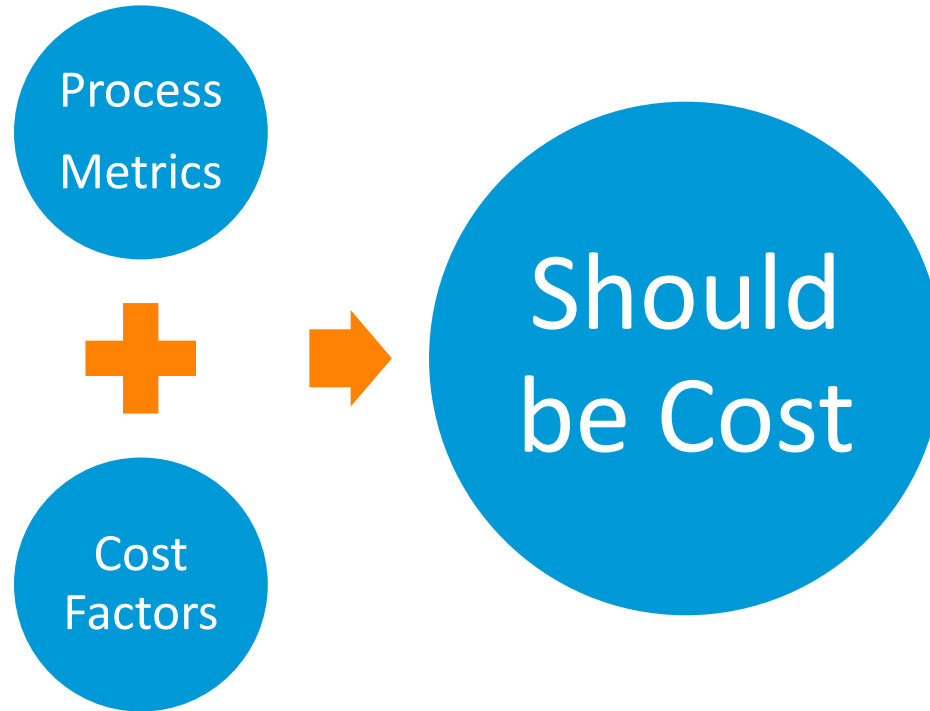


Estimate from:

- ▶ Cost tables
- ▶ Statistics
 - ▶ 1st Quartile
 - ▶ Average



Manufacturing Process Should be Model





Manufacturing Process Should be Model

Process Labor and Burden Cost

| | |
|------------------------------------|----------------|
| Labor Rate Per Hour | \$18.50 |
| # of Direct Operators Req'd | 1 |
| Cycle time in Seconds | 4.82 |
| Efficiency | 85% |
| Pieces Produced per Hour | 635 |
| Total Labor Cost | \$ 0.0291 |
| Machine Size | 200 |
| Burden Rate Per Hour | \$ 135.00 |
| Burden Cost Per Part | \$ 0.2126 |
| Total Labor and Burden Cost | \$ 0.24 |

| |
|----------------------------|
| Key: |
| Data from Cost Breakdown |
| |
| Caclulated from Regression |
| |
| Calculation |
| |



Benefits of Developing This Type of Model

- ▶ Greatly improves knowledge of suppliers' processes and costs.
- ▶ Using supplier data adds credibility to negotiations with suppliers over pricing.

- ▶ **Historical/current pricing catalogues**
 - ▶ **Single variable/linear price models**
 - ▶ **Multi variable regression models**
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- ▶ Provide fast estimates
 - ▶ Identify parts not priced like the others
 - ▶ Can incorporate indices
 - ▶ Do not require supplier participation



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