



6 Ways to Increase 2019 Savings



Introducing APD

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

Customized solutions; There is no one size fits all approach.



We Help Clients Implement Knowledge-Based Cost Management in Three Ways . . .

1

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

2

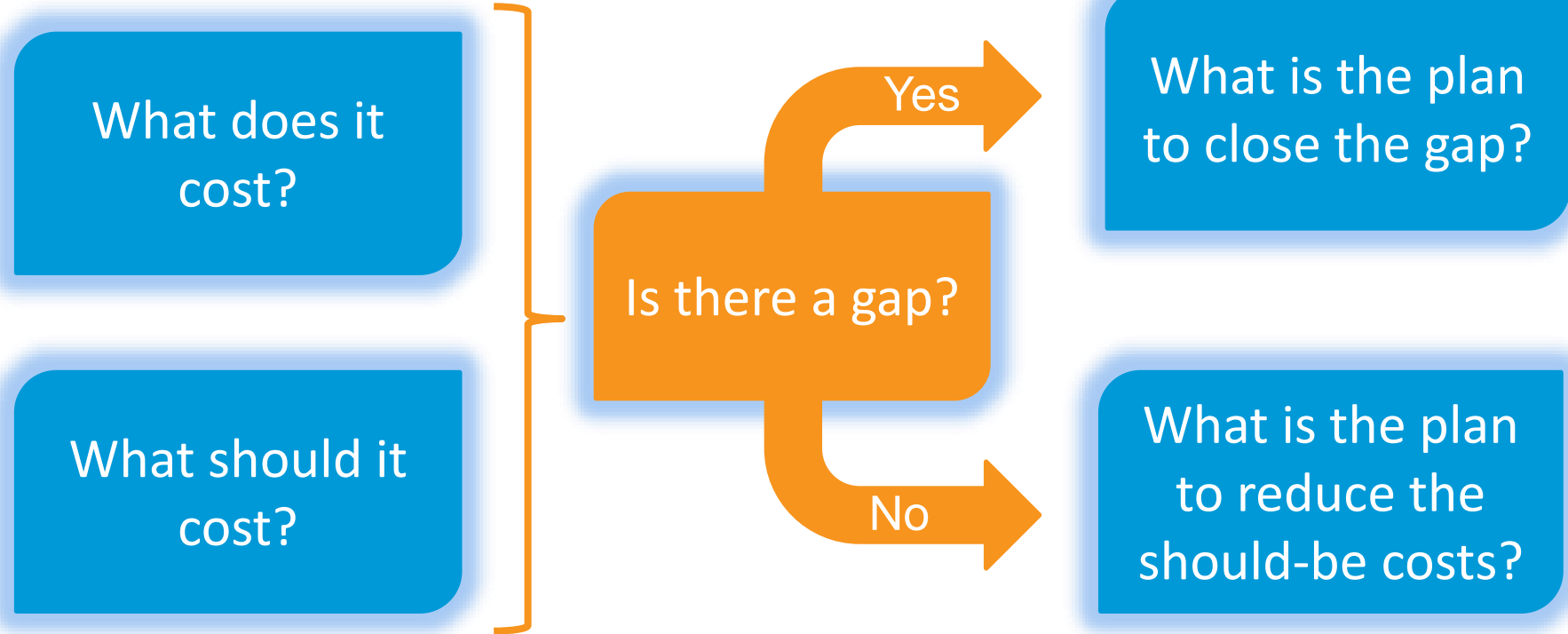
Execute-and-Mentor where we deliver the early stages and guide the client's staff to complete the project while internalizing capabilities

3

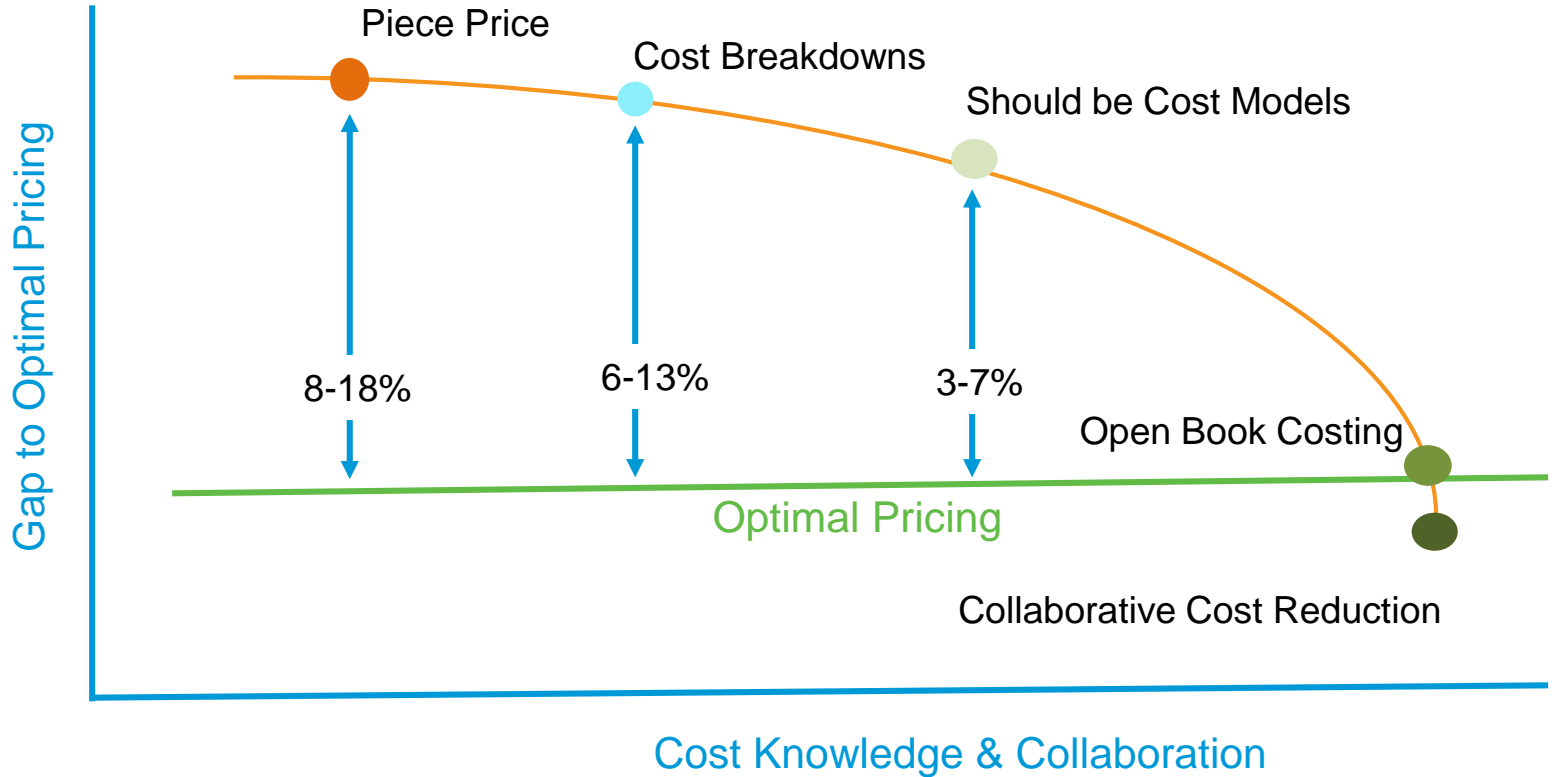
Technology Transfer approach that relies on the client organization to execute

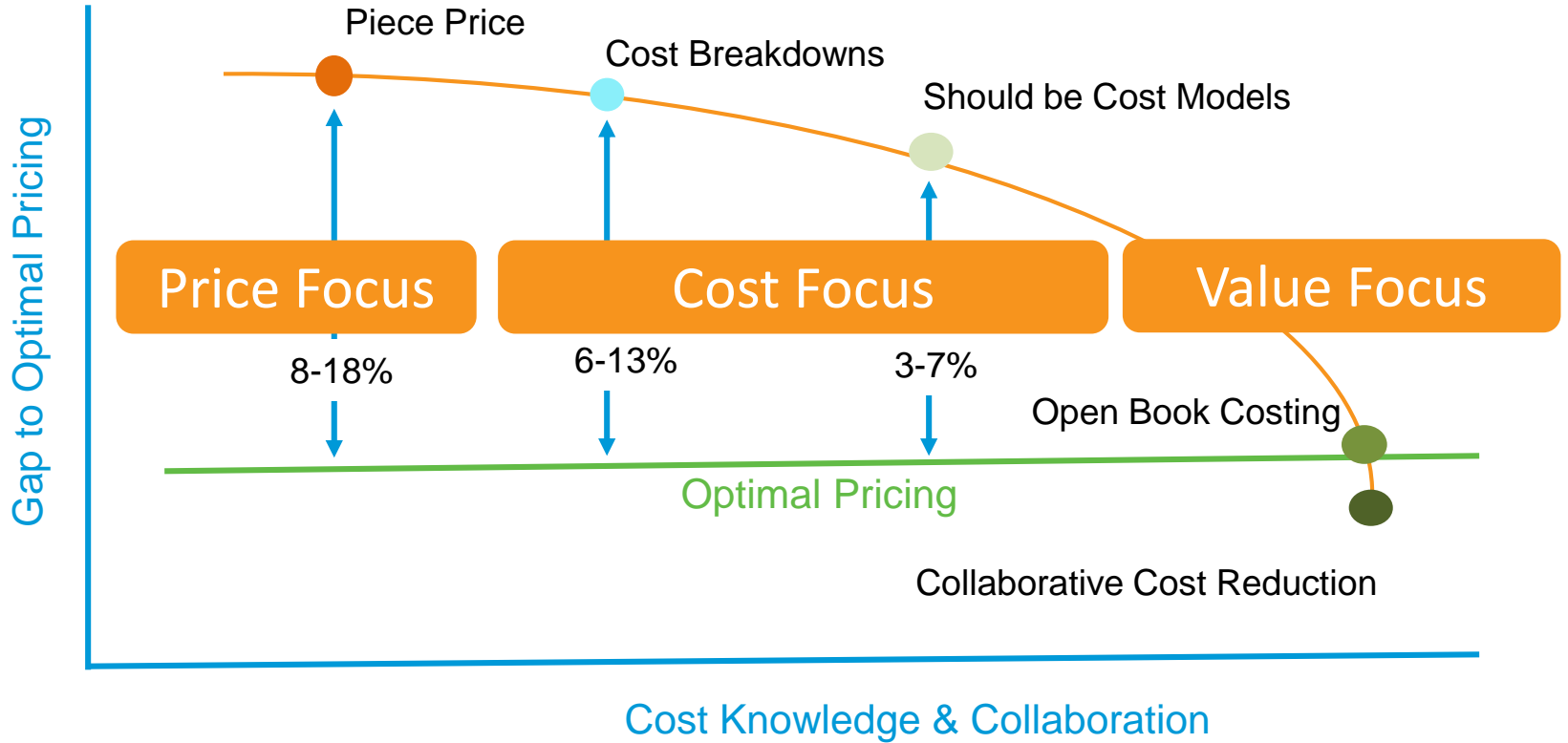


Top Purchasing Cost Performers Know



The Opportunity







6 Ways to Increase Savings in 2019

- 1 Linear Cost Models
- 2 Multivariate Models
- 3 Cost Breakdown Analysis
- 4 Tail Spend Approach
- 5 Kick the Can on Indirect
- 6 Metrics/Meetings

Linear Cost Models



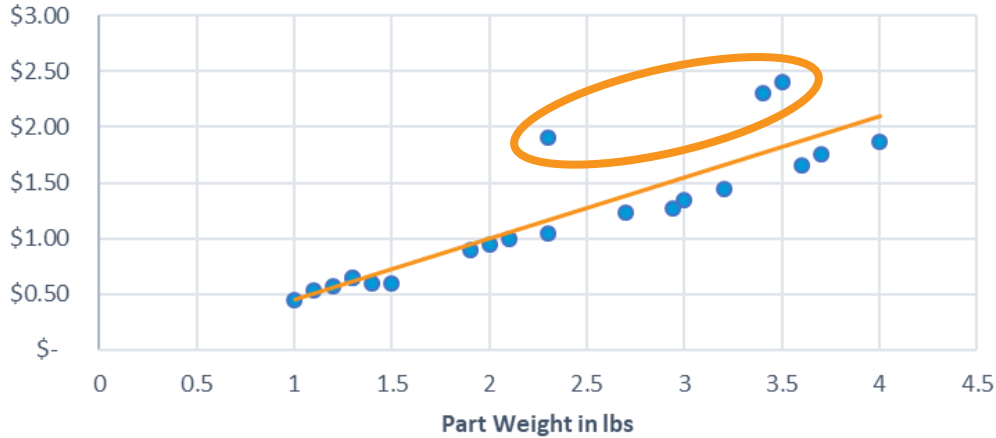
- ▶ Using a single part attribute to predict price:

Example: $\text{Price} = \text{Net Weight} * \$.46$



Linear Models Can Help

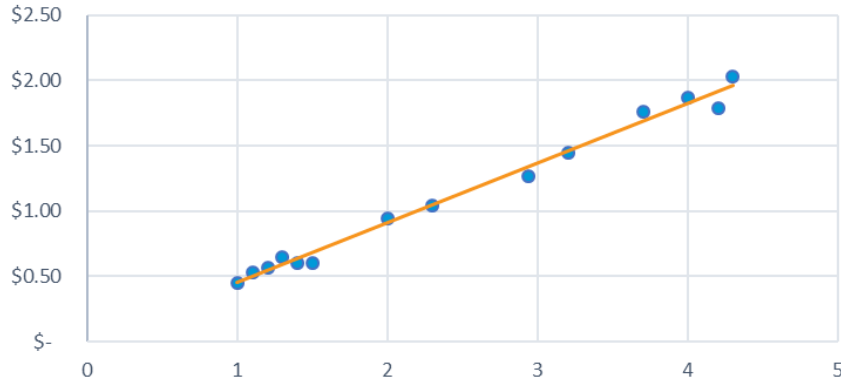
Price Linear
Net Part Weight * \$.51



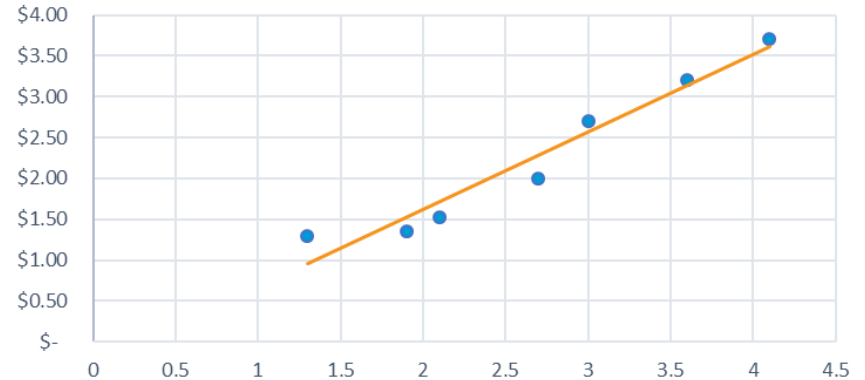
- ▶ Predict Price
- ▶ Identify Potential Negotiation Targets

Predictive Linear Models

Price Linear: Volume > 100,000
Weight * \$.46 = Price



Price Linear: Volume < 100,000
Weight * \$.84 = Price



▶ In practice, multiple attempts may be required.



Multiple Linear Models for 1 Commodity

Commodity	Characteristics			Linear Formula
Die Casting	Parts with Volumes < 100,000	Parts without Machining	Parts without Washing	Net Part Weight * \$.86
			Parts with Washing	Net Part Weight * \$.87
		Parts with Machining		Net Part Weight * \$.97
	Parts with Volumes > 100,000	Parts without Machining	Parts Without Washing	Net Part Weight * \$.46
			Parts with Washing	Net Part Weight * \$.47
		Parts with Machining		Net Part Weight * \$.77



6 Ways to Increase Savings in 2019

- 1 Linear Cost Models
- 2 Multivariate Models
- 3 Cost Breakdown Analysis
- 4 Tail Spend Approach
- 5 Kick the Can on Indirect
- 6 Metrics/Meetings

- ▶ Regression enables us to look at pricing and a number of possible cost drivers at once and:
 - ▶ Determine which cost drivers have the greatest influence on price.
 - ▶ Develop a mathematical formula to forecast price.
 - ▶ Identify specific price reduction opportunities by identifying pricing which is “out of formula”.



Multivariate Regression Models

Attribute of Part Being Estimated		Regression Coefficient	Cost Impact
	↓		\$ 0.09
Net Part Weight (lbs)	3	0.22	\$ 0.66
# of Machined Surfaces	2	0.14	\$ 0.28
# of Times Washed	1	0.11	\$ 0.11
Material Index Value	1.34	0.91	\$ 1.22
Volume	100,000	-0.0000013	\$ (0.13)
Should be Estimate			\$ 2.23

- ▶ Create the models
- ▶ Identify outliers
- ▶ Investigate the differences
- ▶ Close the gaps



When to Use Linear/Multivariate Models

- ▶ Prior to a market test to identify:
 - ▶ Parts priced high vs. model >>> include in market test
 - ▶ Parts priced low vs. model >>> exclude from market test
- ▶ After a market test to develop a price estimation tool

6 Ways to Increase Savings in 2019

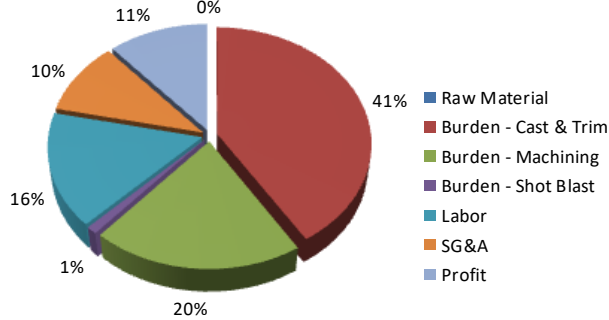
- 1 Linear Cost Models
- 2 Multivariate Models
- 3 Cost Breakdown Analysis
- 4 Tail Spend Approach
- 5 Kick the Can on Indirect
- 6 Metrics/Meetings

Variance Analysis Example

POWERED BY
PROCUREFORCE

Cost Driver Opportunity

- Variance from Average Value -

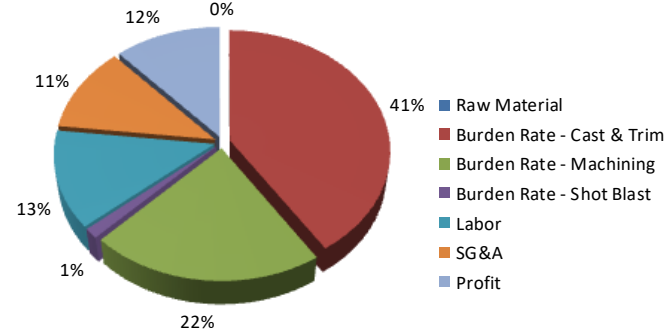


Cost Driver	Variance from Average	Percent of Variance Identified
Raw Material	\$0	0%
Burden - Cast & Trim	\$804,384	41%
Burden - Machining	\$400,536	20%
Burden - Shot Blast	\$20,314	1%
Labor	\$311,010	16%
SG&A	\$199,811	10%
Profit	\$223,806	11%
Total Opportunity	\$1,959,861	
Opportunity % Identified		12%

POWERED BY
PROCUREFORCE

Cost Driver Opportunity

- Variance from Minimum Value -

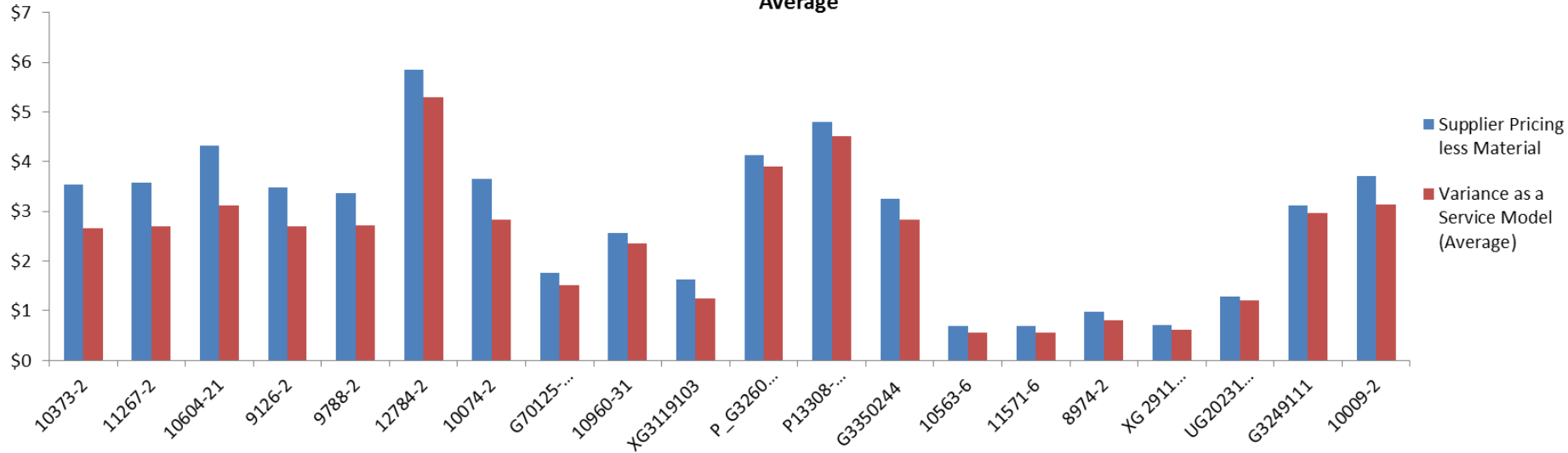


Cost Driver	Variance from Minimum Value	Percent of Variance Identified
Raw Material	\$0	0%
Burden Rate - Cast & Trim	\$2,392,711	41%
Burden Rate - Machining	\$1,274,734	22%
Burden Rate - Shot Blast	\$79,266	1%
Labor	\$764,854	13%
SG&A	\$673,128	11%
Profit	\$689,305	12%
Total Opportunity	\$5,873,997	
Opportunity % Identified		35%



Part Level Variance – Average – Top 20 Parts

Variance as a Service
Supplier Quote vs. Variance as a Service Model
Average



Part Level Variance – Average – Top 20 Parts

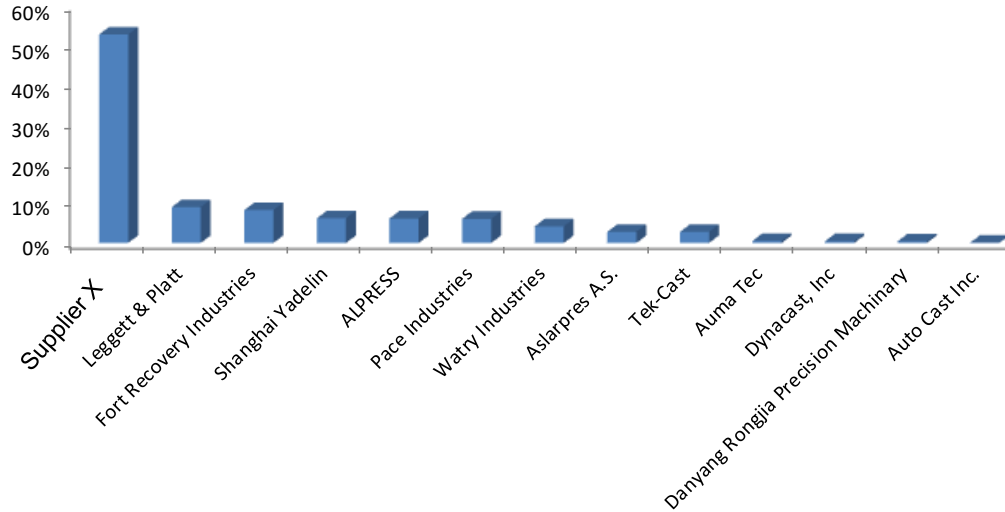
Part Number	Supplier	Annual Volume	Supplier Pricing less Material	Variance as a Service Model (Average)	Per Piece Difference	% Opportunity	Annual Opportunity
10373-2	Supplier X	300,000	3.54	2.65	(0.89)	-25.1%	266,417
11267-2		261,000	3.58	2.69	(0.89)	-24.9%	232,839
10604-21		168,000	4.31	3.13	(1.19)	-27.5%	199,226
9126-2		160,000	3.49	2.70	(0.79)	-22.7%	126,374
9788-2		166,600	3.37	2.71	(0.66)	-19.7%	110,598
12784-2	wwary industries	148,000	5.85	5.29	(0.56)	-9.5%	82,489
10074-2	BOCAR	89,364	3.64	2.83	(0.81)	-22.3%	72,738
G70125-301	Shanghai Yadelin	290,695	1.76	1.51	(0.24)	-13.8%	70,375
10960-31	Pace Industries	300,000	2.56	2.35	(0.20)	-8.0%	61,409
XG3119103	ALPRESS	150,000	1.63	1.25	(0.38)	-23.3%	56,923
P_G3260130_051512	Fort Recovery Industries	175,000	4.12	3.91	(0.21)	-5.2%	37,498
P13308-6_091113	Fort Recovery Industries	131,000	4.80	4.51	(0.28)	-5.9%	37,017
G3350244	ALPRESS	85,900	3.25	2.83	(0.42)	-12.8%	35,807
10563-6	Leggett & Platt	246,000	0.70	0.57	(0.13)	-19.0%	32,712
11571-6	Leggett & Platt	246,000	0.70	0.57	(0.13)	-19.0%	32,712
8974-2	Leggett & Platt	166,600	0.98	0.82	(0.17)	-17.0%	27,805
XG 2911 103	Aslarpres A.S.	307,000	0.71	0.62	(0.08)	-11.9%	25,823
UG2023166	Pace Industries	300,000	1.29	1.20	(0.09)	-6.7%	25,735
G3249111	Fort Recovery Industries	175,000	3.11	2.97	(0.14)	-4.6%	24,867
10009-2	Tek-Cast	40,000	3.70	3.14	(0.56)	-15.1%	22,286



Opportunity within Suppliers

POWERED BY:
PROCUREFORCE

Percent of Total Opportunity per Supplier

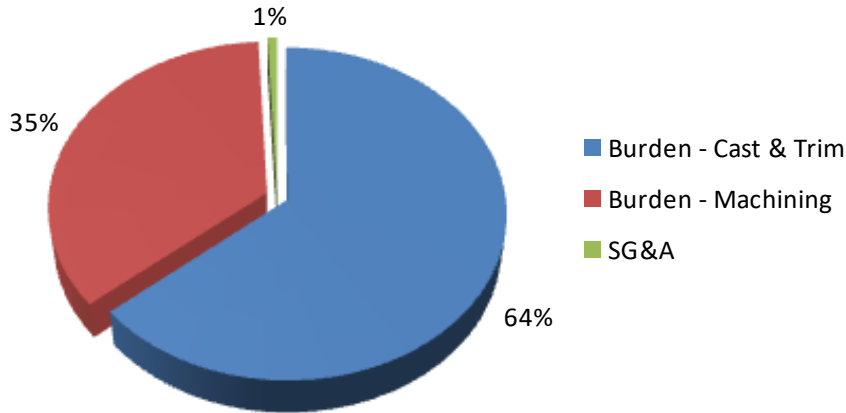


Suppliers	% of Total Opportunity
Supplier X	52.68%
Leggett & Platt	9.06%
Fort Recovery Industries	8.31%
Shanghai Yadelin	6.25%
ALPRESS	6.20%
Pace Industries	6.10%
Watry Industries	4.21%
Aslarpres A.S.	2.82%
Tek-Cast	2.80%
Auma Tec	0.54%
Dynacast, Inc	0.47%
Danyang Rongjia Precision Machinery	0.45%
Auto Cast Inc.	0.10%

Opportunity within Supplier X

POWERED BY:
PROCUREFORCE

Cost Driver Opportunity - Variance from Average Value -

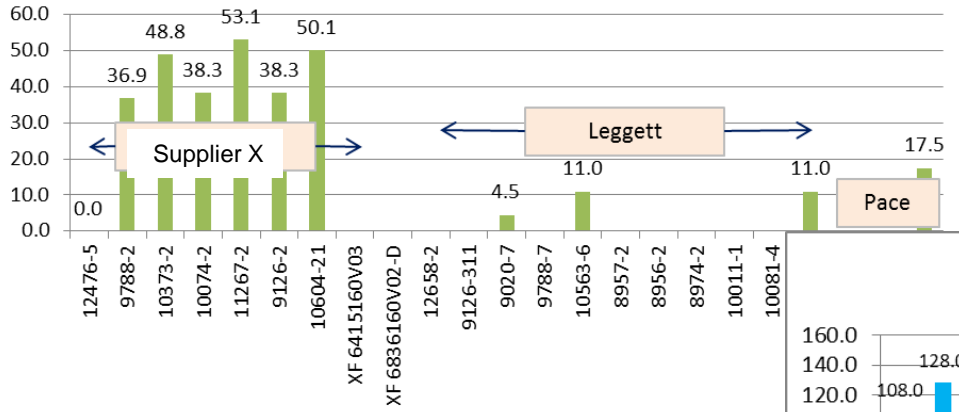


Supplier X Opportunity	Variance from Average	Percent of Variance Identified
Raw Material	\$0	0.0%
Burden - Cast & Trim	\$660,055	63.9%
Burden - Machining	\$364,759	35.3%
Burden - Shot Blast	\$0	0.0%
Labor	\$0	0.0%
SG&A	\$7,726	0.7%
Profit	\$0	0.0%
Total Opportunity	\$1,032,541	

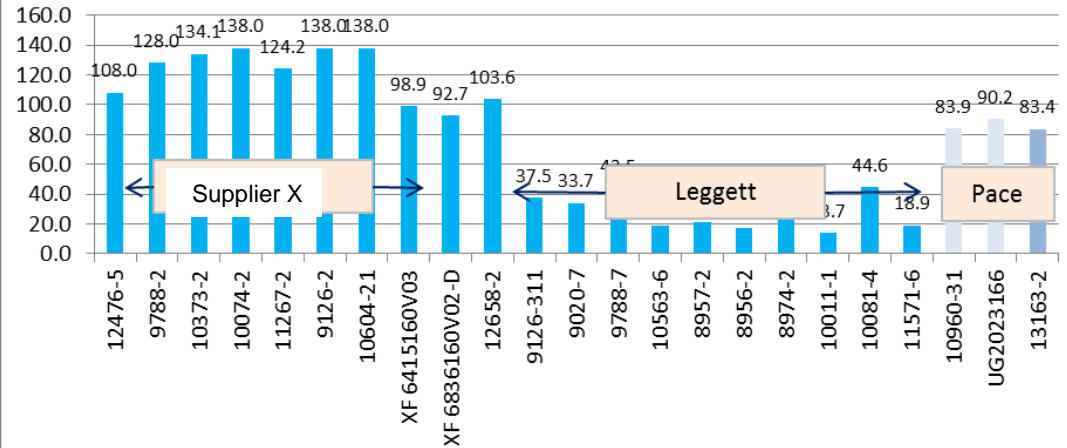


High & Inconsistent OH Rates

Burden Rate Machining \$/Hr - MEXICO



Burden Rate (Press+Trim) \$/Hr - MEXICO





Complex Assembly

Profile

- ▶ Complex assembly auto supplier
- ▶ Global

Situation

- ▶ Obtaining excel detailed cost breakdowns
- ▶ No aggregation of data

Process

- ▶ Variance as a service
- ▶ Analyzed \$30M spend across 3 regions

Achieved

- ▶ One supplier ~ \$400k rebate for overstated overhead

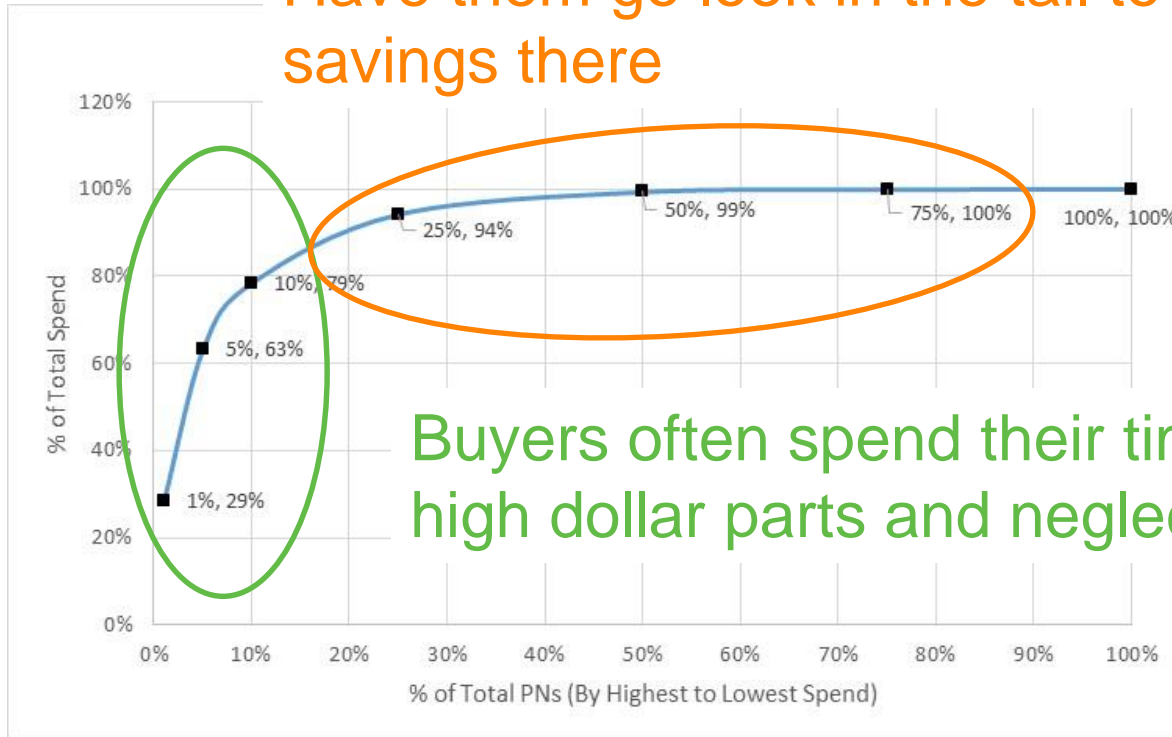


6 Ways to Increase Savings in 2019

- 1 Linear Cost Models
- 2 Multivariate Models
- 3 Cost Breakdown Analysis
- 4 Tail Spend Approach
- 5 Kick the Can on Indirect
- 6 Metrics/Meetings

Look at your tail spend

Have them go look in the tail to see if there are savings there



Buyers often spend their time looking at the high dollar parts and neglecting the low

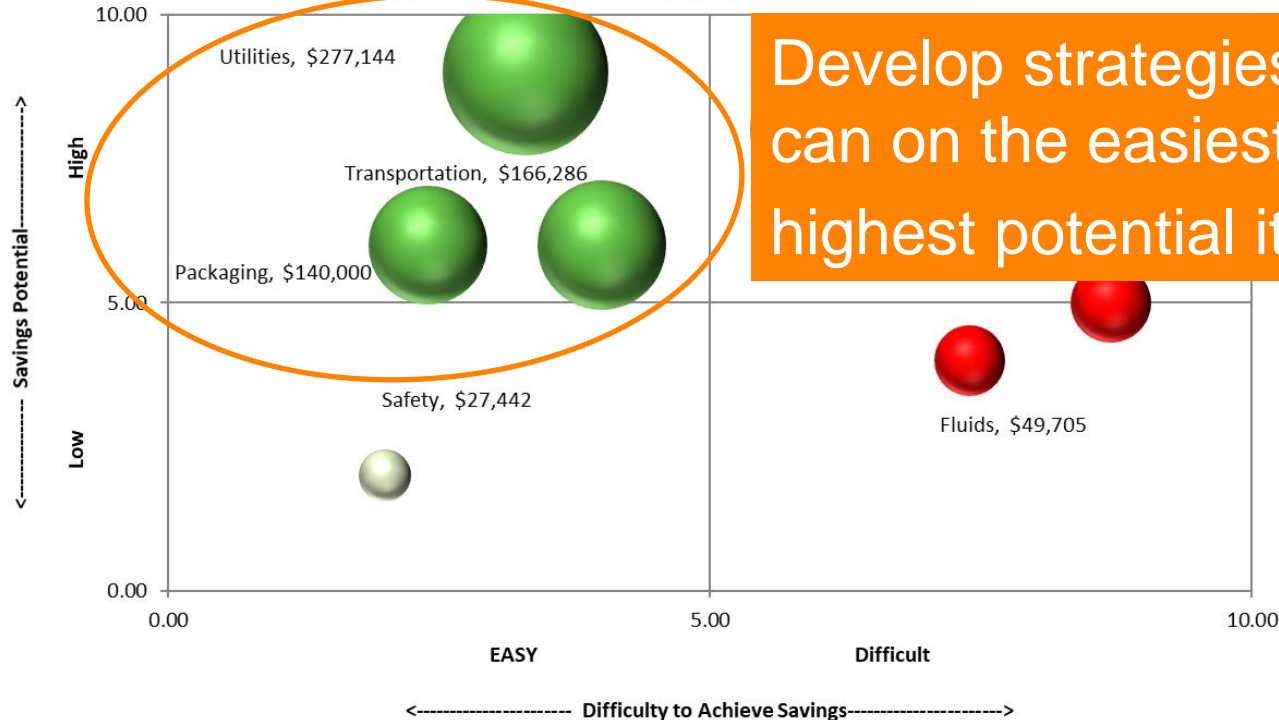


6 Ways to Increase Savings in 2019

- 1 Linear Cost Models
- 2 Multivariate Models
- 3 Cost Breakdown Analysis
- 4 Tail Spend Approach
- 5 Kick the Can on Indirect
- 6 Metrics/Meetings

- ▶ Develop a **quick** understanding of your spend
- ▶ Look at the highest spend categories:
 - ▶ Current purchasing practices
 - ▶ Last time category was “kicked”
 - ▶ Ease of kicking the category

Indirect Savings Potential Assessment



Develop strategies to kick the can on the easiest, highest potential items

- ▶ Packaging market test - - 35% 4 weeks
- ▶ Joined a consortium for office supplies – 22% 5 weeks
- ▶ Optimized truckload shipments - - 27% 4 weeks
- ▶ Sold non-moving inventory - - 6 weeks

6 Ways to Increase Savings in 2019

- 1 Linear Cost Models
- 2 Multivariate Models
- 3 Cost Breakdown Analysis
- 4 Tail Spend Approach
- 5 Kick the Can on Indirect
- 6 Meetings that Matter

- ▶ Weekly purchasing meetings to review status
- ▶ Monthly cross-functional meetings to coordinate activities
- ▶ Monthly reports to Sr. Management on results, issues



You Know Your Succeeding When

- ▶ Buyers/managers know and own their numbers
- ▶ Managers know the status of 80% of the items 100% of the time
- ▶ Execs notice a difference



6 Ways to Increase 2019 Savings