# Using Data to Improve Your Negotiations 

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Panelists: Todd Pooler, Procurement Specialist - Senior UW- Madison, Purchasing Services

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## Session Objectives

- Explore how various types of data can assist with making fact based decisions during solicitation development, contract negotiations and other contract management activities
- Identify resources for obtaining and verifying data
- Examine and discuss 2 case studies which used data to mitigate price increase requests


## EVERYBODY, ON YOUR FEET!

## Data here.

 Data there.Data everywhere.

## 2,500,000,000,000,000,000 bytes daily!

## Defining Data

- Data
- Quantitative statistics and facts for reference and analysis.
- Information
- Data is processed, interpreted, organized, and structured in a given context.
- Context
- Data requires context to become information. Information supports decision-making.

THE GOAL: Turning data into information into outcomes!

## Data: Types and Uses

Administrative

Performance

Reference

## Data: Ownership

- First-party
- Second-party
- Third-party




## Where can I find data? How can I confirm that the data is accurate and verifiable?

## External Data Resources

| Who we serve | What we do | Conferences | Insights | About | Search | Q |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |




## Fueling the Future of Business

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See how and where the government spends money.
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sales, and receive bid notifications. Get a sneak peek now with a free account!


## Internal Data Resources

- STAR - BI (Business Intelligence)
- STAR - Customized queries and other reports
- Management reports outlined in the contract and provided by supplier
- WISBuy and Shop@UW
- Benchmarks


## How can I gather data for the solicitation?

## Data for Comparison




## How can I use data to mitigate price increase requests from suppliers?

## DOA Case Study: <br> Enterprise Cleaning Chemicals Contract

## Product Definitions and Price List

- Tier 1: 121 Manufacturer-specific items from 6 manufacturers
- Tier 2: Discount-off manufacturer list prices for non-Tier 1 items (10 additional manufacturers)
- Tier 3: Discount-off manufacturer list prices for non-Tier 1 and Tier 2 items

Vendors on Contract: 6
Types of Products: Consumable/disposable items

## DOA Case Study

## Proposed Price Increases:

- Tier 1: Price increases on 87 of the 121 items from multiple suppliers
- Tier 2: Reduction to "discount off" amount from 4 manufacturers (pricing from 2 suppliers)
- Tier 3: No changes


## Data Points:

- Tier 1 and Tier 2:
- Actual pricing for prior year
- Proposed pricing for this year
- Alternative contracted supplier pricing
- Tier 1 item-specific utilization
- Supplier performance


## Tier 1 Analysis: Pricing Comparisons

## Data (and Detail)

- "Like" items versus "similar" items
- Identify products that have a price increase (87 of the 121 items)
- Identify market alternative prices for all items:
- All items: 56 products have alternatives
- Items with price increases: 47 products have alternatives

What is the impact of these pricing changes?
Information: Impact of each pricing option for products in Tier 1

## Tier 1 Analysis: Pricing Comparisons

- Gojo: 32 products, including hand wash, sanitizer, shampoo
- Suppliers: 2
- Market Alternatives: 20 of 32 items
- Impact of price increase

Is this acceptable, or should we select alternative sources?
\(\left.$$
\begin{array}{|c|c|c|}\hline \text { Price } \\
\text { Increase }\end{array}
$$ \begin{array}{c}Supplier <br>

A\end{array}\right)\)| Supplier |
| :---: |
| B |$|$| $0 \%$ | 5 | 23 |
| :---: | :---: | :---: |
| $1 \%$ | 0 | 9 |
| $3 \%$ | 23 | 0 |
| $5 \%$ | 3 | 0 |
| $7 \%$ | 1 | 0 |

## Case Study: Tier 1 Analysis

| Product <br> Description | Supplier <br> A | Supplier <br> B | Market <br> Alternative <br> Exist? | 9.1.17 <br> Pricing | $10.1,18$ <br> Pricing | Market <br> Alternative <br> Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Handwash, foam, <br> dispenser refill | 72 | 668 | Yes | $\$ 20,492$ | $\$ 20,553$ | $\$ 21,993$ |

## Case Study: Key Performance Indicators

Ongoing impact of proposed pricing increase from contracted vendors:

- Cost savings (unit pricing and total cost of ownership)
- Supplier comparison (unit pricing): Vendor spend ratio
- Behavioral change (purchasing staff): Best price purchase rate
- Managed Spend (purchasing staff): Contract ratio spend


# "Without rigorous contract management, 75\% of sourcing savings can disappear within 18 months." 

Supplier Performance Measurement and Continuous Improvement February, 24, 2010 - Corporate Executive Board

## Five Buckets of Money

## Case Study UW Madison

- Five Buckets of Money: Costs a manufacturer pays to make their product
- Why is that important?



## Five Buckets of Money

- Require supplier to provide breakdown for " 5 Buckets" categories before agreeing to price increases
- Only agree to increases for categories that have been provided
- Cost increases must be tied to " 5 Buckets" and must include documented cost increase from manufacturer/market index
- Ex: (Price $\mathrm{x} \%$ of price relating to direct materials) $\mathrm{x} \%$ increase
- Determine what an acceptable breakdown would look like (e.g., product category, other group)


## 5 Buckets of Money for BAFO



## Case Study: Five Buckets of Money

- Problem: Vendors let us know about price increases due to the tariffs on products from China
- Analysis:
- Made a list of products with hardware components from China
- Calculated $25 \%$ price increase with and without " 5 Buckets" methodology

| Product <br> Description | Actual Price Paid | $25 \%$ Increase on <br> All Costs | $25 \%$ Increase on <br> Material Costs Only |
| :---: | :---: | :---: | :---: |
| Grand Total | $\$ 955,935.03$ | $\$ 238,983.76$ | $\$ 62,135.78$ |

## C/PPI Index

- Bureau of Labor Statistics (https://www.bls.gov/data/) or another mutually agreed upon Index
- Numbers show the value of products relative to the market at a given point in time
- Millions of rows of data, very complex, can't be implemented overnight

Download: X].x|sx

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual | HALF1 | HALF2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 8}$ | 208.757 | 209.526 | 211.542 | 212.662 | 214.932 | 215.738 | 217.459 | 215.971 | 215.465 | 213.363 | 209.053 | 205.959 | 212.536 | 212.193 | 212.878 |
| $\mathbf{2 0 0 9}$ | 207.616 | 207.367 | 207.462 | 207.886 | 209.809 | 211.010 | 210.906 | 211.441 | 211.345 | 211.708 | 212.206 | 211.185 | 209.995 | 208.525 | 211.465 |
| $\mathbf{2 0 1 0}$ | 212.104 | 212.456 | 212.952 | 212.929 | 212.984 | 212.186 | 212.535 | 212.784 | 213.339 | 213.332 | 213.066 | 213.778 | 212.870 | 212.602 | 213.139 |

## CPI Index: How to Apply It

| Period | Qty | Total Spend | Avg Price | CPI | CPI <br> Change | CPI \% <br> Change | CPI Predicted <br> Price |
| :--- | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| FY17, July | 188 | $\$ 237,950.11$ | $\$ 1,265.69$ | 164.092 | -- | -- | $\$ 1,265.69$ |
| FY17, Aug | 132 | $\$ 148,585.01$ | $\$ 1,125.64$ | 164.890 | 0.80 | 0.00484 | $\$ 1,271.82$ |
| FY17, Sept | 99 | $\$ 134,593.19$ | $\$ 1,359.53$ | 165.291 | 0.40 | 0.00243 | $\$ 1,274.90$ |
| FY17, Oct | 99 | $\$ 112,623.70$ | $\$ 1,137.61$ | 165.454 | 0.16 | 0.00099 | $\$ 1,276.16$ |

## CPI Index

- When using averages, look at the peaks and understand what caused them
- CPI is not a good short-term measure (years are better than months)



## Linear Regression

- Can be used to:
- Compare items that are similar but not identical
- Ex: Different sized computer monitors
- Compare identical items sold in different sizes or packaging
- Ex: Solvent sold in bulk vs individual-sized bottles
- Using the trend line formula, you can calculate the over/under of the price to the trend line to ask for a specific price reduction


## Linear Regression

- Create a baseline, use that each year
- Makes it more difficult to refute
- Will shift the discussion to:
- Reducing the prices of items above the line
- Raising the prices of items below the line


## Linear Regression

- Suppliers will try to point out contradictions in the data
- Examples:
- New technology vs old technology
- Variations in specs (e.g., monitor resolution)
- Country of origin



## Case Study: Key Performance Indicators

Select data points to measure:

- Price
- Customer satisfaction
- Number of complaints
- Number of returns
- Lead time
- Risk
- Percentage of orders shipped complete
- On time delivery


## Closing Thoughts

- Data will never be perfect, but it's still important to track
- Plan as much as possible before starting
- People will question your data - be open to feedback, but require facts and examples to explain how your assumptions or calculations are incorrect
- Understand where the data comes from
- Start small
- Seek out various strategic sourcing tools
- Data and methods used in manufacturing environments don't necessarily apply to what we do


## Questions?

THANK YOU FOR ATTENDING!

## Supplemental Materials and Links

THE FOLLOWING SLIDES CONTAIN SUPPLEMENTAL INFORMATION, EXAMPLES, AND LINKS FOR THOSE WANTING A CLOSER LOOK

## Supplemental Materials - Meet the Panel

## Cathy Neidner

Cathy Neidner, Procurement Specialist, Senior has been with the State of Wisconsin for 7 years. Prior to coming to the State, Cathy has held various procurement roles, in the private section, which spans over 25+ years.

## Todd Pooler

Todd Pooler, Procurement Specialist, Senior has been with the State of Wisconsin for 9 years. Along with experience in State procurement, has worked in industry for another 15 years for companies like Kimberly Clark, Bemis and Oshkosh Corp.

## Linn Schifano

Linn Schifano, MPP, is a Data \& Program Analyst in the State of Wisconsin Bureau of Procurement. Linn has a strong background in financial and data analysis, having previously worked in consumer lending and finance, economic development and health insurance.

## Supplemental Materials Data Sources

## Fee-Based External Data Sources:

- Forrester https://go.forrester.com
- Gartner https://www.gartner.com/en
- GovSpend
- ISM Reports


## Free External Data Sources:

- PPI and CPI from Department of Labor Statistics https://www.bls.gov
- Procurement IQ (SBOP has a Login as part of NASPO membership Contact SBOP for assistance)

Internal Data Sources:

- STAR


## Supplemental Materials - Other

How Much Data Do we Create Every Day? The Mind-Blowing Stats Everyone Should Read
Forbes - May 21, 2018
https://www.forbes.com/sites/bernardmarr/2018/05/21/how-much-data-do-we-create-every-day-the-mind-blowing-stats-everyone-should-read/\#192b0be160ba

## Supplemental Materials Linear Regression

Every commodity/service will have different variables that you will want to measure. Here are some general links that you will need to understand to apply them to your data.
http://onlinestatbook.com/2/regression/intro.html https://www.spss-tutorials.com/simple-linear-regression/ https://en.wikipedia.org/wiki/Simple linear regression https://owlcation.com/stem/How-to-Create-a-Simple-Linear-RegressionEquation

## Supplemental Materials Examples of Key Performance Indicators

- Spend/Headcount
- Spend on core list
- Spend on contract/leakage off contract
- Average order size
- Average cost of product
- Average percent off list/NASPO/Benchmark
- Cost savings by commodity/vendor (cost avoidance and/or actual savings)
- Customer Satisfaction
- Number of Complaints
- Number of Returns


# Supplemental Materials From DOA Case Study 

## Scope of Contract [\#505ENT-M16-CLEANINGCHEMS]

Included items:

- Hand, Body, Hair Chemicals
- Hard Surface (non-floor) Chemicals
- Floor Care
- Laundry Chemicals
- Ware Washing Chemicals


## Excluded items:

- State Use Program
- Work Centers
- Alternative DOA enterprise contract items [U07, U93, U97, etc]

Required delivery criteria: maximum one week from order date.

## Product Definitions and Price List

Tier 1: 121 Manufacturer-specific items from 6 manufacturers
Tier 2: Discount-off manufacturer list prices for non-Tier 1 items (10 additional manufacturers)
Tier 3: Discount-off manufacturer list prices for non-Tier 1 and Tier 2 items

## Vendors on Contract

6 current vendors

Pricing: including but not limited to insurance, packaging, shipping costs. No additional fees allowed.

Pricing changes and contract renewal term: October 1 through September 30.

| Product Description | Supplier | $\begin{aligned} & \text { Supplier } \\ & \text { B } \end{aligned}$ | Market <br> Alternative <br> Exist? | $\begin{array}{\|l} \text { 9.1.17 } \\ \text { Pricing } \end{array}$ | 10.1.18 <br> Pricing | Market <br> Alternative <br> Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hand Cleaner, foam, push dispenser refill | 806 | 399 | Yes | \$ 16,859 | \$ 17,198 | \$ 38,560 |
| Hand Cleaner, foam, counter mount dispenser refill | 588 | - | Yes | \$ 14,371 | \$ 14,806 | \$ 21,844 |
| Handwash, foam, dispenser refill | 152 | - | Yes | \$ 2,149 | \$ 2,213 | \$ 4,373 |
| Handwash, foam, dispenser refill | 54 |  | Yes | \$ 764 | \$ 786 | \$ 1,945 |
| Antimicrobial soap, lotion, bulk | 7,281 | 150 | No | \$ 155,097 | \$ 159,757 |  |
| Hand Sanitizer, Purell, foam, touch-free dispenser refill | 51 | - | Yes | \$ 2,225 | \$ 2,292 | \$ 2,548 |
| Hand Sanitizer, Purell, foam, push dispenser refill | 2 | 22 | Yes | \$ 1,061 | \$ 1,064 | \$ 1,192 |
| Hand Sanitizer, Purell, foam, pump bottle (18 oz) | 4 | - | No | \$ 191 | \$ 191 |  |
| Hand Sanitizer, Purell, gel, pump bottle, 8 oz. | 216 | 15 | Yes | \$ 7,184 | \$ 7,184 | \$ 9,155 |
| Hand Sanitizer, gel, bottle, 2 oz. |  | 58 | No | \$ 1,643 | \$ 1,643 |  |
| Handwash, foam, counter mount dispenser refill | 392 | 528 | Yes | \$ 13,634 | \$ 14,030 | \$ 36,119 |
| Handwash, foam, dispenser refill | 1,036 | 80 | No | \$ 15,765 | \$ 16,200 |  |
| Hand, Hair, Body Wash, dispenser refill | 76 | - | Yes | \$ 1,075 | \$ 1,107 | \$ 3,406 |
| Antimicrobial Handwash, Provon, dispenser refill | 51 | - | No | \$ 1,658 | \$ 1,707 |  |
| Medicated handwash, foam, Provon, dispenser refill | 71 | - | No | \$ 2,567 | \$ 2,643 |  |
| Antimicrobial Handwash, foam, Provon, dispenser refill | - |  | No | \$ - | \$ |  |
| Handwash, foam, dispenser refill | 72 | 668 | Yes | \$ 20,492 | \$ 20,553 | \$ 21,993 |
| Body \& Hair Shampoo, Spa Bath, Dispenser Refill | 100 | 8 | No | \$ 3,315 | \$ 3,469 |  |
| Handwash, foam, mild, dispenser refill | 158 | - | Yes | \$ 4,938 | \$ 5,086 | \$ 5,574 |
| Handwash, a nit-bacterial, foam, dispenser refill | 556 |  | Yes | \$ 7,862 | \$ 8,095 | \$ 20,305 |
| Hand, Hair, Body Wash, foam, dispenser refill | 534 | - | No | \$ 7,551 | \$ 7,775 |  |
| Handwash, foam, Provon with moisturizers, dispenser refill | 18 | - | Yes | \$ 508 | \$ 523 | \$ 542 |
| Lotion Skin Cleanser, dispenser refill | 37 | - | Yes | \$ 1,183 | \$ 1,242 | \$ 1,520 |
| Hand Sanitizer, Instant, Purell, foam dispenser refill | 51 | 32 | Yes | \$ 3,626 | \$ 3,694 | \$ 3,718 |
| Handwash, foam, Pomeberry | 400 | 610 | Yes | \$ 31,636 | \$ 32,012 | \$ 39,077 |
| Hand Sanitizer, Instant, Purell, dispenser refill | 496 | 196 | No | \$ 37,705 | \$ 39,054 |  |
| Handwash, foam, Provon with moisturizers, dispenser refill | 15 | - | Yes | 426 | 439 | \$ 353 |
| Antimicrobial Lotion Soap w/ chloroxylenol | 4 | 256 | No | \$ 8,112 | \$ 8,112 |  |
| Handwash, anit-bacterial, foam, dispenser refill | 427 | - | Yes | \$ 13,271 | \$ 13,271 | \$ 14,599 |
| Gojo spabath shampoo flat top 4gal/cs |  | - | Yes |  | \$ | \$ - |
| Hand cleaner, foam, dispenser refill | 196 | 40 | Yes | \$ 6,812 | \$ 6,980 | \$ 8,373 |
| Spa bath body hair shampoo pink 4gl/cs | 25 | - | No | 890 | 916 |  |

## Five Buckets of Money

## Dell Hardware example FY2019 UW-Madison Spend Only

|  |  |  |  |
| :--- | ---: | ---: | ---: |
| Product Desc | 25\% Increase on all |  |  |
| costs |  |  |  | | 25\% increase on $26 \%$ |
| ---: |
| Material costs |

List of products that have components coming from China

[^0]
## CPI Index

| Time Period | QTY | Total Spend | Ave Price | CPI | CPI chan | CPI \% change | CPI predicted Price |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FY 2017, July | 188 | \$237,950.11 | \$1,265.69 | 164.092 | - |  | \$ | 1,265.69 |
| FY 2017, August | 132 | \$148,585.01 | \$1,125.64 | 164.890 | 0.80 | 0.00484 | \$ | 1,271.82 |
| FY 2017, September | 99 | \$134,593.19 | \$1,359.53 | 165.291 | 0.40 | 0.00243 | \$ | 1,274.90 |
| FY 2017, October | 99 | \$112,623.70 | \$1,137.61 | 165.454 | 0.16 | 0.00099 | \$ | 1,276.16 |
| FY 2017, November | 90 | \$148,437.35 | \$1,649.30 | 163.609 | (1.85) | (0.01128) | \$ | 1,261.77 |
| FY 2017, December | 118 | \$138,458.95 | \$1,173.38 | 163.691 | 0.08 | 0.00050 | \$ | 1,262.40 |
| FY 2017, January | 92 | \$120,317.19 | \$1,307.80 | 165.286 | 1.60 | 0.00965 | \$ | 1,274.58 |
| FY 2017, February | 168 | \$190,700.99 | \$1,135.12 | 164.788 | (0.50) | (0.00302) | \$ | 1,270.73 |
| FY 2017, March | 83 | \$109,615.32 | \$1,320.67 | 164.527 | (0.26) | (0.00159) | \$ | 1,268.71 |
| FY2017, April | 135 | \$150,876.15 | \$1,117.60 | 165.906 | 1.38 | 0.00831 | \$ | 1,279.26 |
| FY 2017, May | 181 | \$219,709.28 | \$1,213.86 | 165.595 | (0.31) | (0.00188) | \$ | 1,276.86 |
| FY 2017, June | 188 | \$239,717.82 | \$1,275.09 | 164.499 | (1.10) | (0.00666) | \$ | 1,268.35 |
| FY 2018, July | 403 | \$593,910.70 | \$1,473.72 | 165.247 | 0.75 | 0.00453 | \$ | 1,274.09 |
| FY2018, August | 305 | \$339,827.56 | \$1,114.19 | 166.368 | 1.12 | 0.00674 | \$ | 1,282.68 |
| FY 2018, September | 111 | \$132,845.28 | \$1,196.80 | 167.633 | 1.27 | 0.00755 | \$ | 1,292.36 |
| FY 2018, October | 132 | \$145,994.79 | \$1,106.02 | 166.856 | (0.78) | (0.00466) | \$ | 1,286.34 |
| FY 2018, November | 82 | \$99,149.98 | \$1,209.15 | 167.328 | 0.47 | 0.00282 | \$ | 1,289.97 |
| FY 2018, December | 80 | \$94,935.70 | \$1,186.70 | 166.150 | (1.18) | (0.00709) | \$ | 1,280.82 |
| FY 2018, January | 131 | \$167,388.72 | \$1,277.78 | 167.420 | 1.27 | 0.00759 | \$ | 1,290.54 |
| FY 2018, February | 193 | \$222,924.23 | \$1,155.05 | 166.612 | (0.81) | (0.00485) | \$ | 1,284.28 |
| FY 2018, March | 176 | \$227,036.96 | \$1,289.98 | 166.674 | 0.06 | 0.00037 | \$ | 1,284.76 |
| FY2018, April | 83 | \$106,143.71 | \$1,278.84 | 168.517 | 1.84 | 0.01094 | \$ | 1,298.81 |
| FY 2018, May | 161 | \$184,224.07 | \$1,144.25 | 168.856 | 0.34 | 0.00201 | \$ | 1,301.41 |
| FY 2018, June | 735 | \$734,449.60 | \$999.25 | 168.380 | (0.48) | (0.00283) | \$ | 1,297.73 |
| FY 2019, July | 115 | \$133,652.16 | \$1,162.19 | 167.483 | (0.90) | (0.00536) | \$ | 1,290.78 |
| FY2019, August | 110 | \$132,438.78 | \$1,203.99 | 167.475 | (0.01) | (0.00005) | \$ | 1,290.72 |

## CPI Index

- When using averages, you need to look at the peaks and understand what caused them.
- CPI is not a good short term measure (years are better than months)



## Linear Regression

| Product | $\checkmark$ | Size 7 | Cost - | Qty <br> Purchase - | bundle - | Cost/In - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dell 19 Monitor - E1916H |  | 19 | \$ 83.49 | 13 | Non Bundle | \$ 4.39 |
| Dell 20 Monitor - E2016H |  | 20 | \$ 100.39 | 4 | Non Bundle | \$ 5.02 |
| Dell 22 Monitor E2216H |  | 22 | \$ 124.32 | 3 | Non Bundle | \$ 5.65 |
| Dell 23 Monitor - E2316H |  | 23 | \$ 131.49 | 16 | Bundle | \$ 5.72 |
| Dell 23 Monitor P2317H |  | 23 | \$ 136.59 | 1179 | Bundle | \$ 5.94 |
| Dell 24 Monitor - E2417H |  | 24 | \$ 148.39 | 5 | Non Bundle | \$ 6.18 |
| Dell 22 Monitor - P2217 |  | 22 | \$ 136.28 | 2 | Bundle | \$ 6.19 |
| Dell 22 Monitor - P2217H |  | 22 | \$ 136.28 | 67 | Bundle | \$ 6.19 |
| Dell 24 Monitor for Video-Conferencing - P2418HZ |  | 24 | \$ 161.54 | 1 | Non Bundle | \$ 6.73 |
| Dell 24 Monitor - P2417H |  | 24 | \$ 164.00 | 284 | Bundle | \$ 6.83 |
| Dell 19 Monitor - P19175 |  | 19 | \$ 133.03 |  | Bundle | \$ 7.00 |
| Dell UltraSharp 24 InfinityEdge Monitor ? U2417H |  | 24 | \$ 182.00 | 838 | Bundle | \$ 7.58 |
| Dell UltraSharp 24 Monitor - U2414H |  | 24 | \$ 182.00 | 209 | Non Bundle | \$ 7.58 |
| Dell UltraSharp 24 Monitor - U2412M |  | 24 | \$ 202.96 | 57 | Bundle | \$ 8.46 |
| Dell UltraSharp 24 Monitor U2415 |  | 24 | \$ 215.00 | 607 | Bundle | \$ 8.96 |
| Dell 22 Monitor P2213 |  | 22 | \$ 204.71 |  | Non Bundle | \$ 9.31 |
| Dell UltraSharp 29 Ultrawide Monitor - U2913WM |  | 29 | \$ 286.52 | 6 | Non Bundle | \$ 9.88 |
| Dell UltraSharp 23 Skype for Business Monitor - UZ2315H |  | 23 | \$ 229.51 | 8 | Non Bundle | \$ 9.98 |
| Dell 27 Monitor- P2717H |  | 27 | \$ 278.80 | 31 | Non Bundle | \$ 10.33 |
| Dell Ultrasharp 25 Monitor U2515H |  | 25 | \$ 267.65 | 18 | Bundle | \$ 10.71 |
| Dell 24 Monitor P2416D |  | 24 | \$ 291.49 | 11 | Non Bundle | \$ 12.15 |
| Dell UltraSharp 29 Ultrawide Monitor - U2917W |  | 29 | \$ 395.99 | 2 | Non Bundle | \$ 13.65 |
| Dell 23 Touch Monitor P2314T |  | 23 | \$ 316.39 |  | Non Bundle | \$ 13.76 |
| Dell UltraSharp 27 InifinityEdge Monitor - U2717D |  | 27 | \$ 376.61 | 211 | Bundle | \$ 13.95 |

## Linear Regression




[^0]:    Product De
    $\square$ (All)
    A Alienware Desktops
    ( Alienware Notebooks V Chrome
    $\square$ Client Peripherals Cloud Client CLOUD CLIENT
    Cloud Products CS 3RD PARTY SOFTWARE
    V Dell Networking
    $\checkmark$ Dell Storage OEM
    D Dell Storage PS

    - DELL STORAGESC
    - Dell Storage SC Deployment Services
    $\checkmark$ DISPLAYS
    $\checkmark$ Displays
    $\checkmark$ ENTERPRISE PERIPHERALS ESG 3RD PARTY SOFTWARE - ESG EDUCATION SERVICES
    $\square$ Fixed Workstations
    (v) IMAGING
    $\checkmark$ Imaging
    $\checkmark$ Latitude
    $\checkmark$ Mobile Workstations
    - OptiPlex Desktops
    ( Other Electronics
    V Personal Desktops
    - Personal Notebooks
    $\checkmark$ PowerEdge
    SECURITY AND THREAT MANAGEMENT SUPPORT SERVICES
    (V) Tablets

    UNKNOWN
    $\checkmark$ XPS Desktops
    XPS Notebooks

