

1.8 Soft Tools

MBC 638

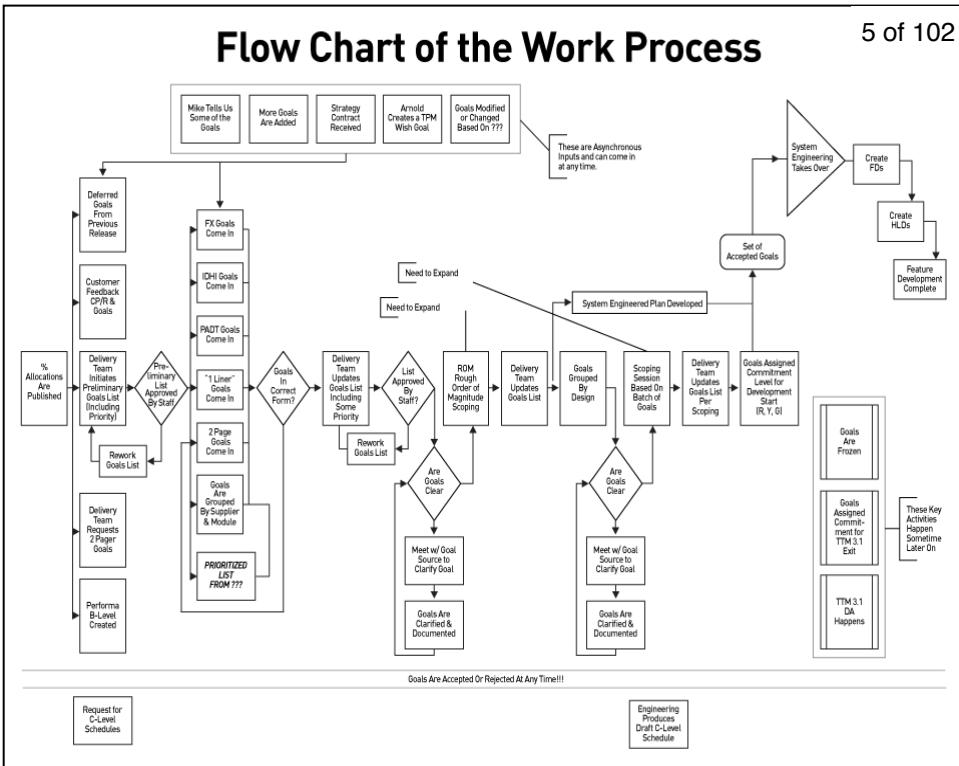
Data Analysis and Decision Making





Data analysis tools can be just as powerful and revealing as the more complex tools and testing methods.

Flow Chart of the Work Process



Process Map: Benefits

Process Map: Benefits

- Gives everyone clear understanding of process

Process Map: Benefits

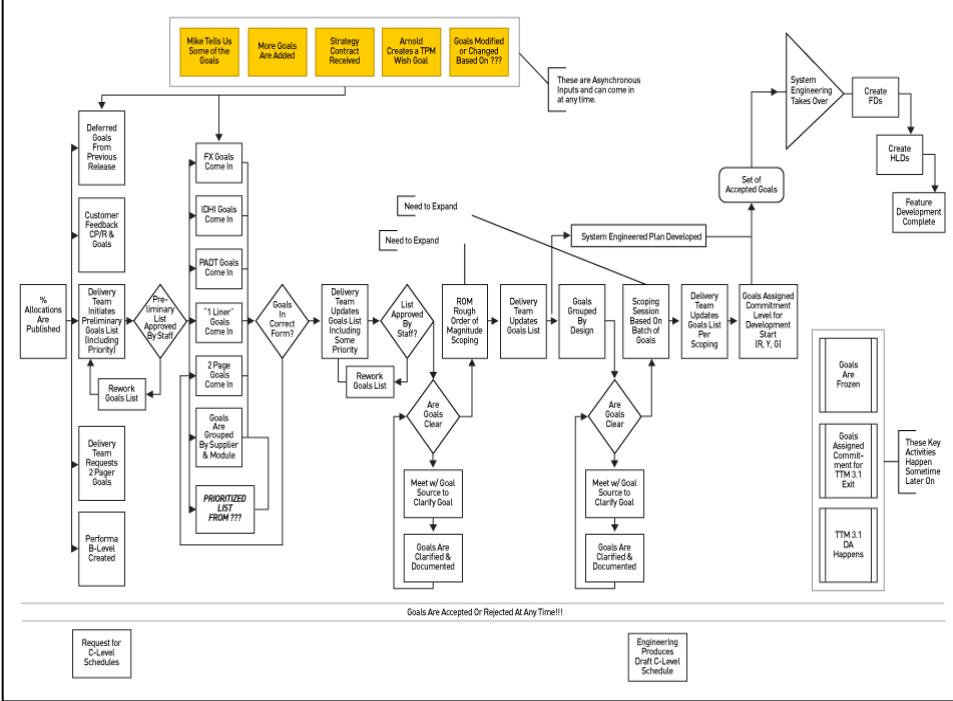
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- Keeps everyone on same page

Process Map: Benefits

- Gives everyone clear understanding of process
- Keeps everyone on same page
- Highlights decision points

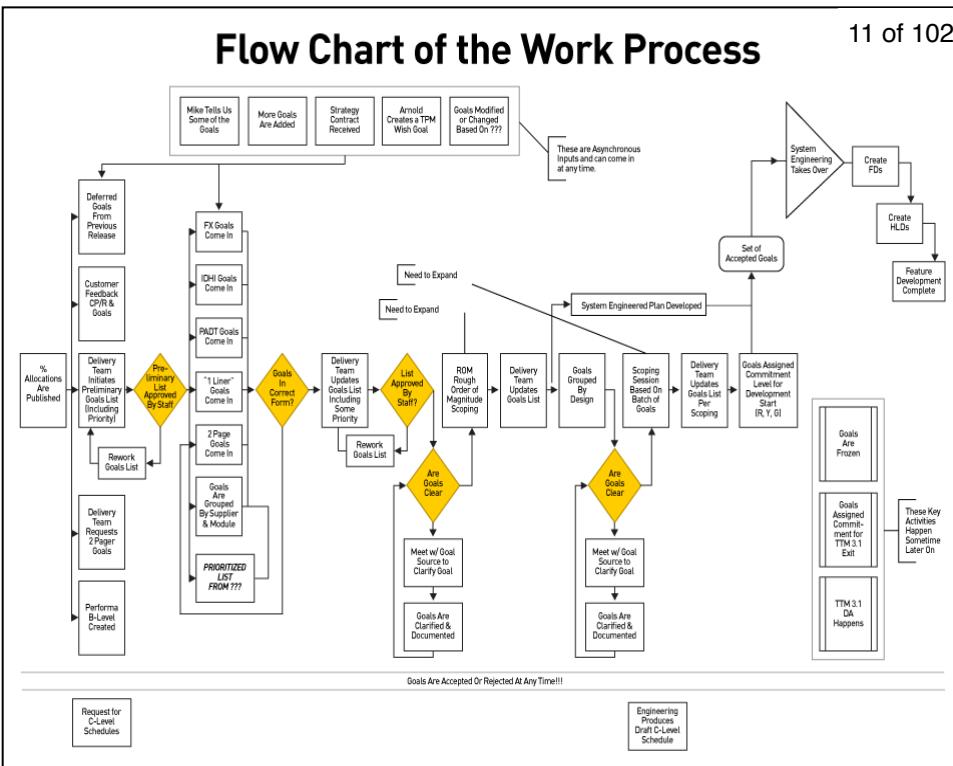
Flow Chart of the Work Process

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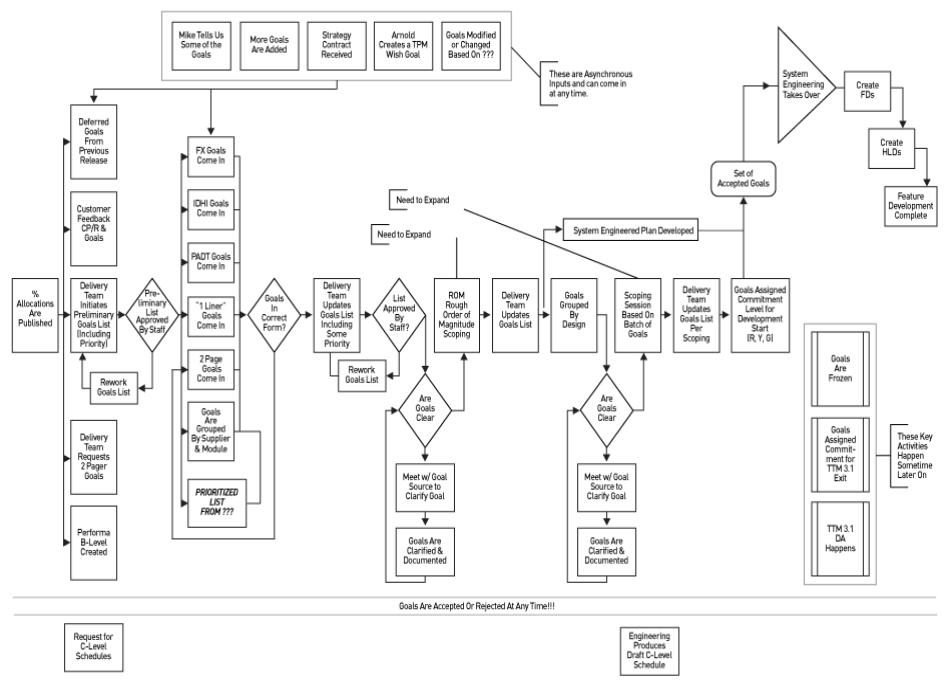
Flow Chart of the Work Process

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Flow Chart of the Work Process

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Process Map: Benefits

- Gives everyone clear understanding of process
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- Highlights decision points
- Helps identify non-value-add steps

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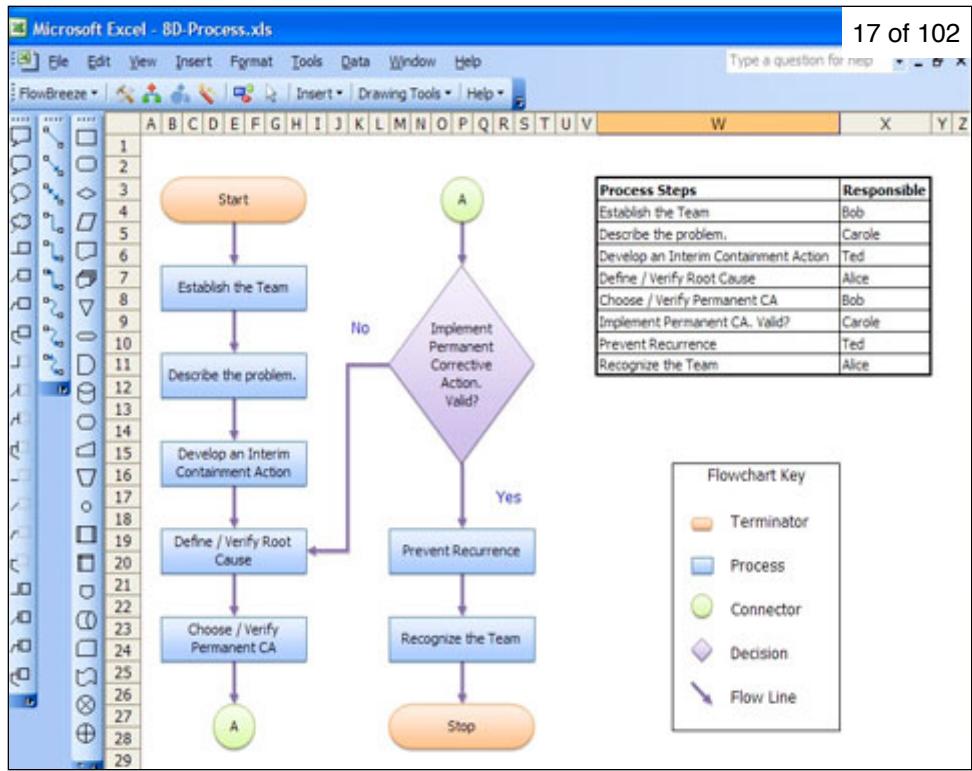
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- Can be used as communication and training tool

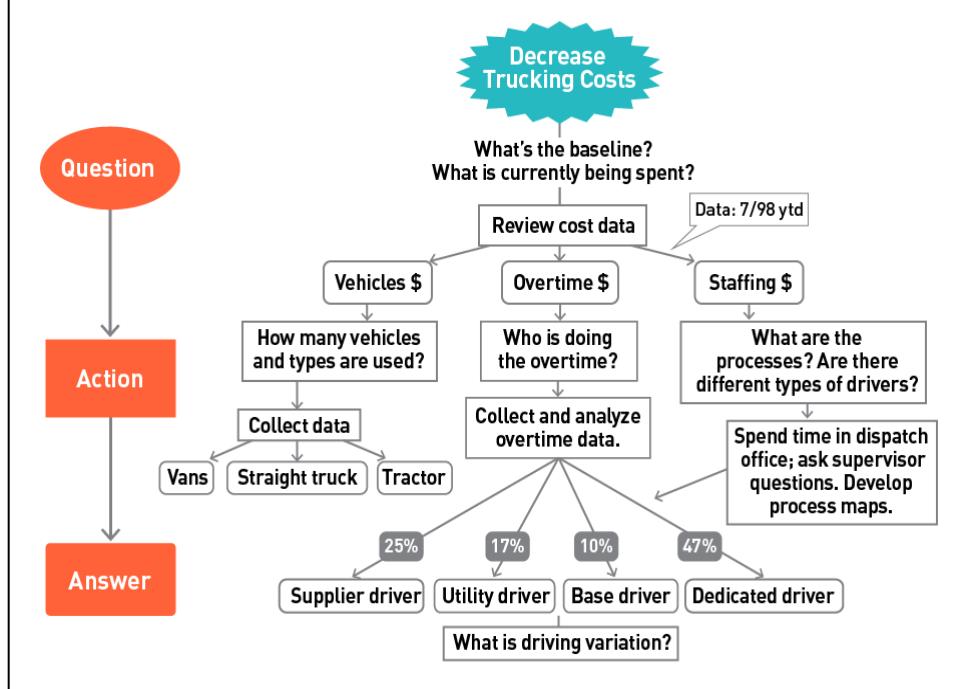
Process Map: Benefits

- Gives everyone clear understanding of process
- Keeps everyone on same page
- Highlights decision points
- Helps identify non-value-add steps
- Can be used as communication and training tool
- Gives a way to show improvement visually



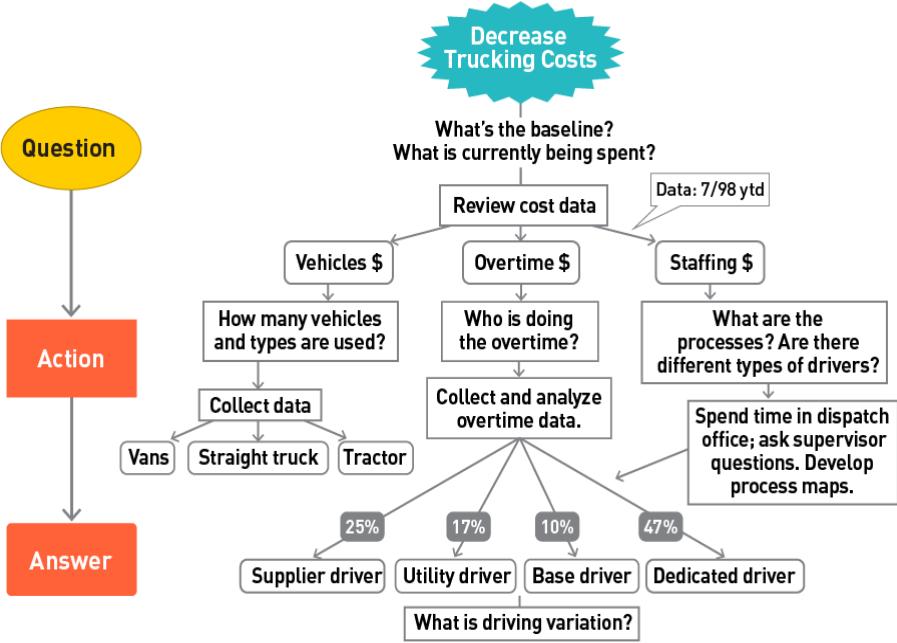


Thought Process Map



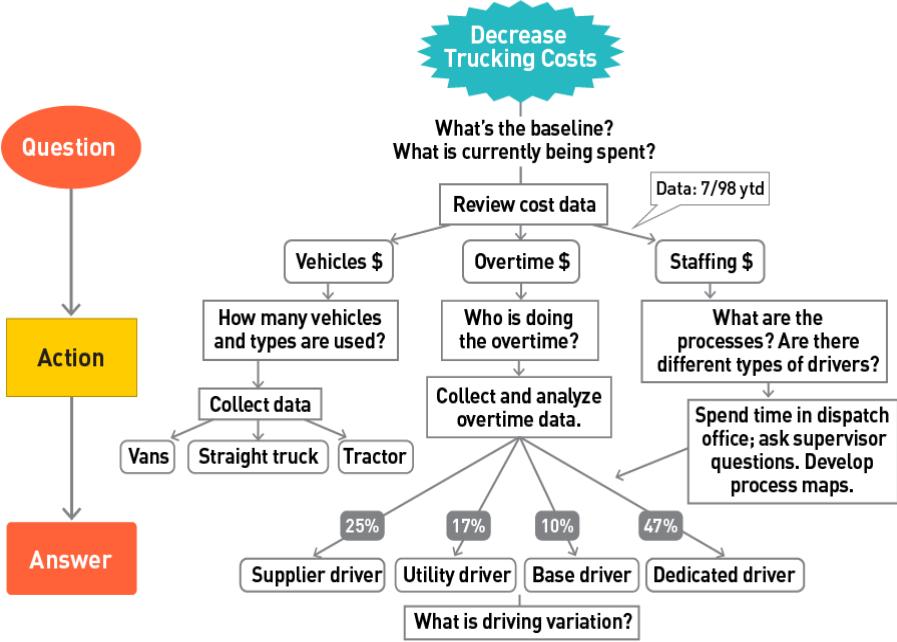
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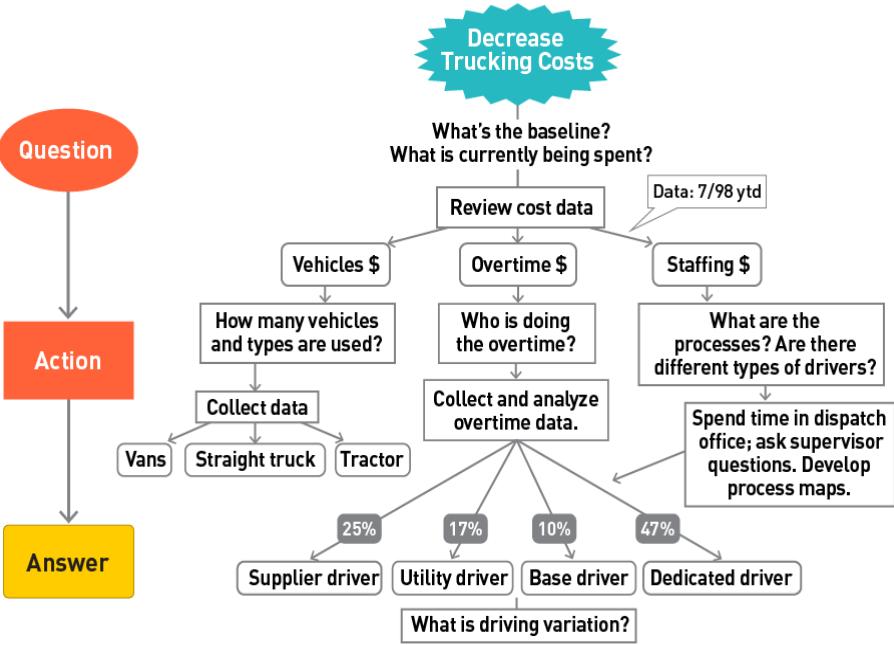


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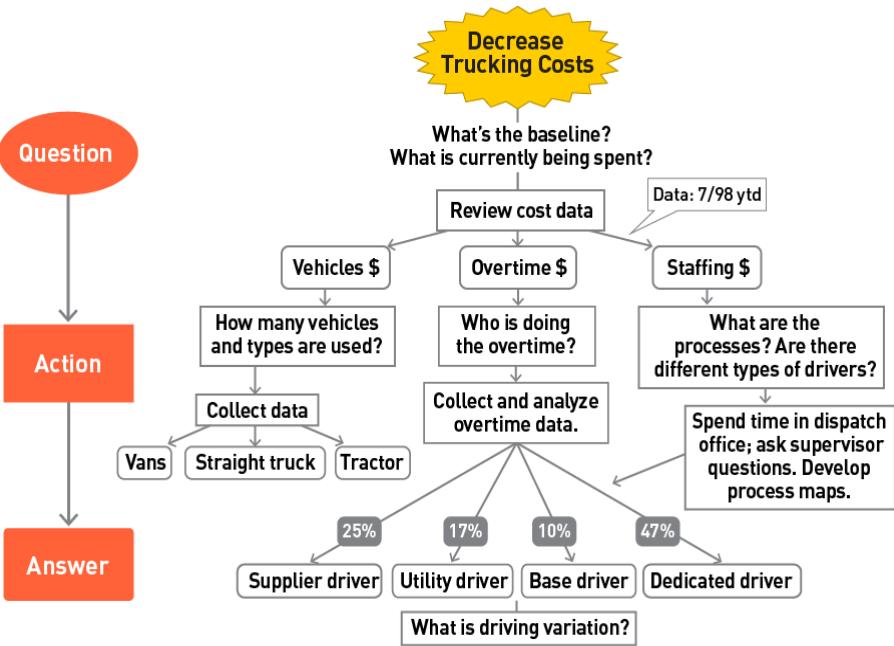
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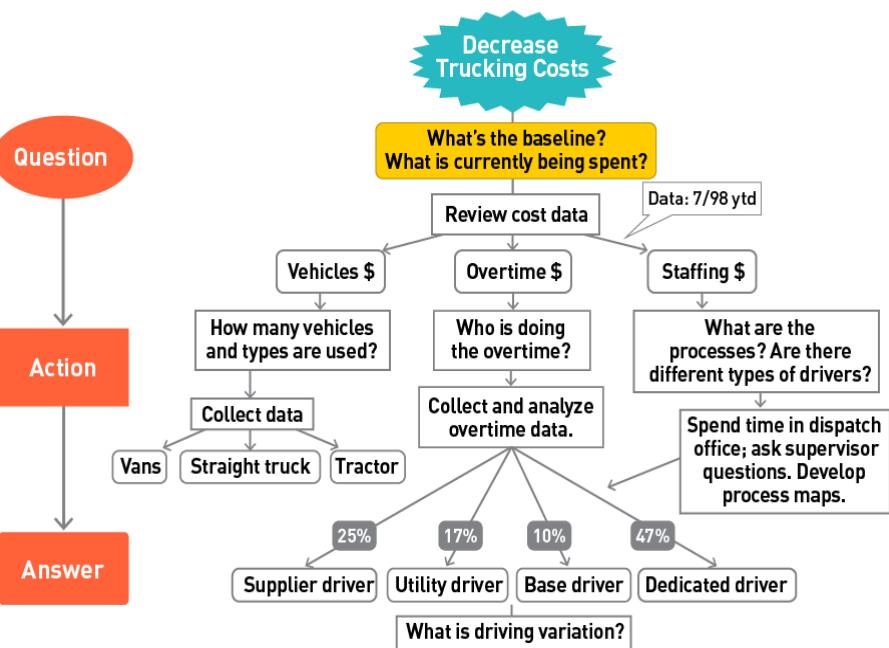


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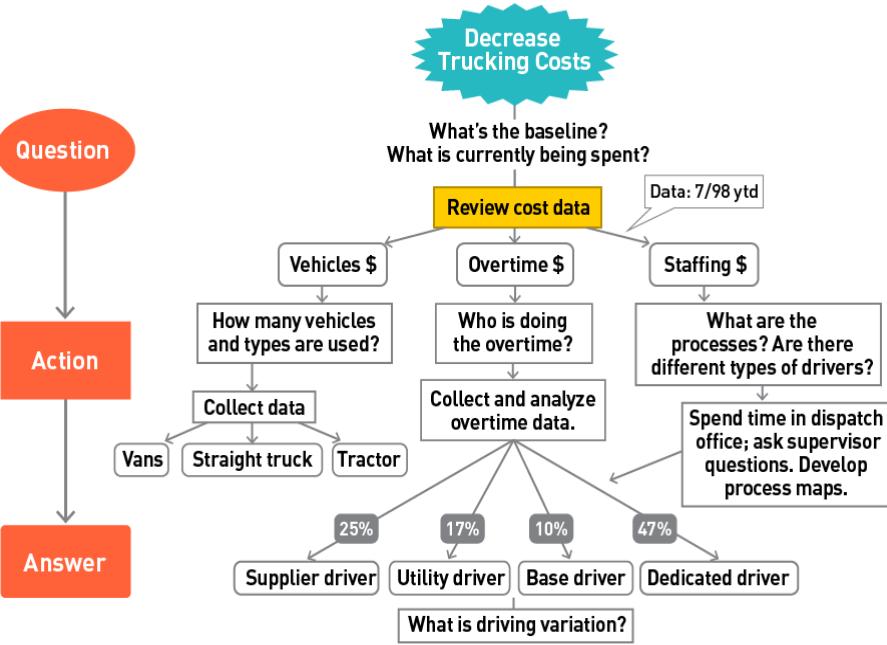


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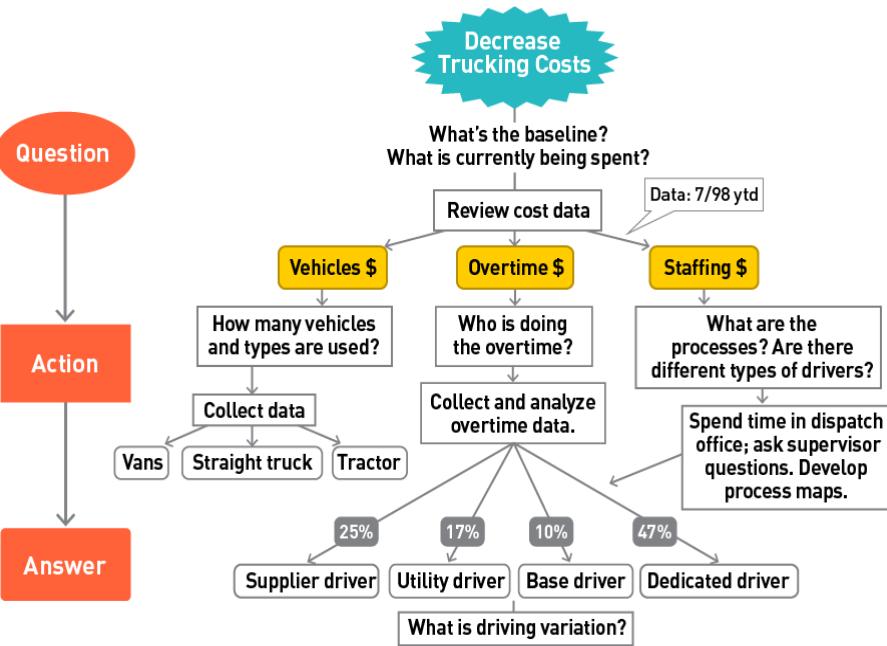
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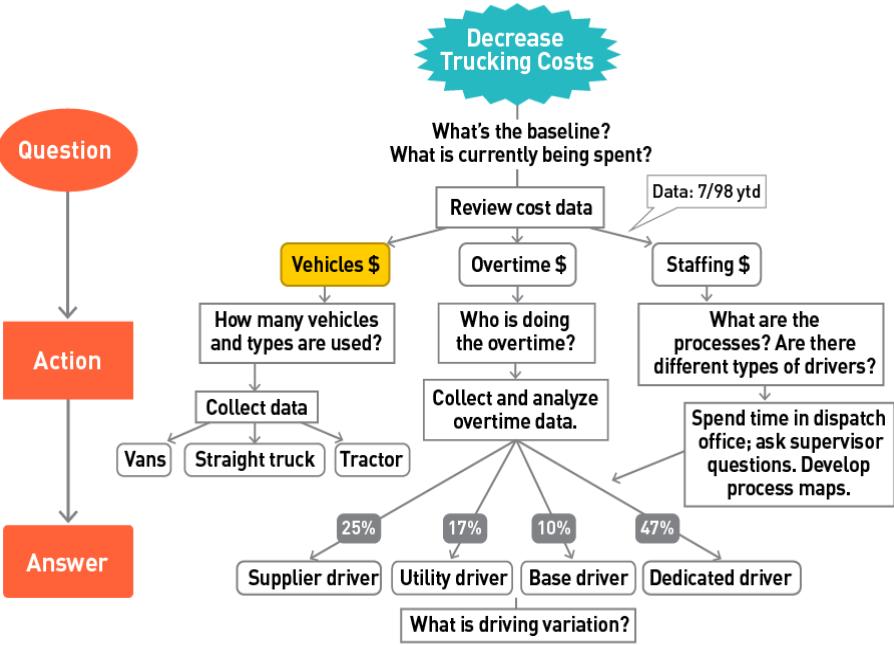


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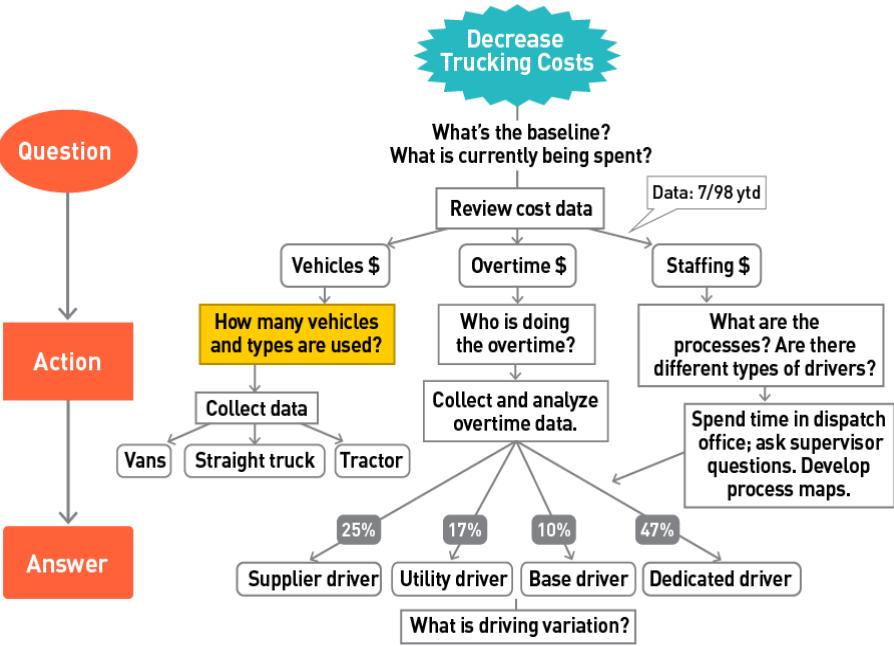
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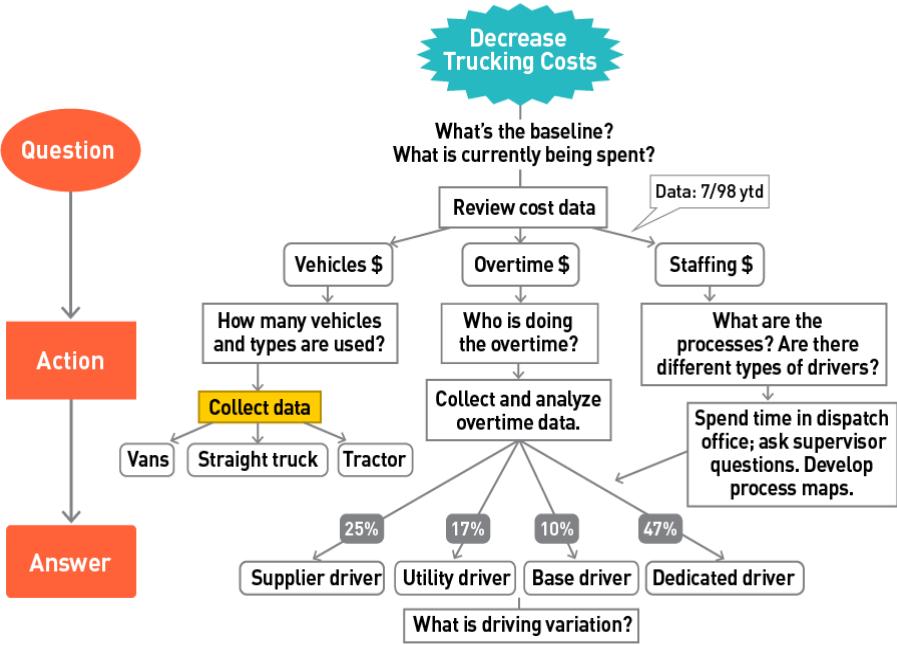
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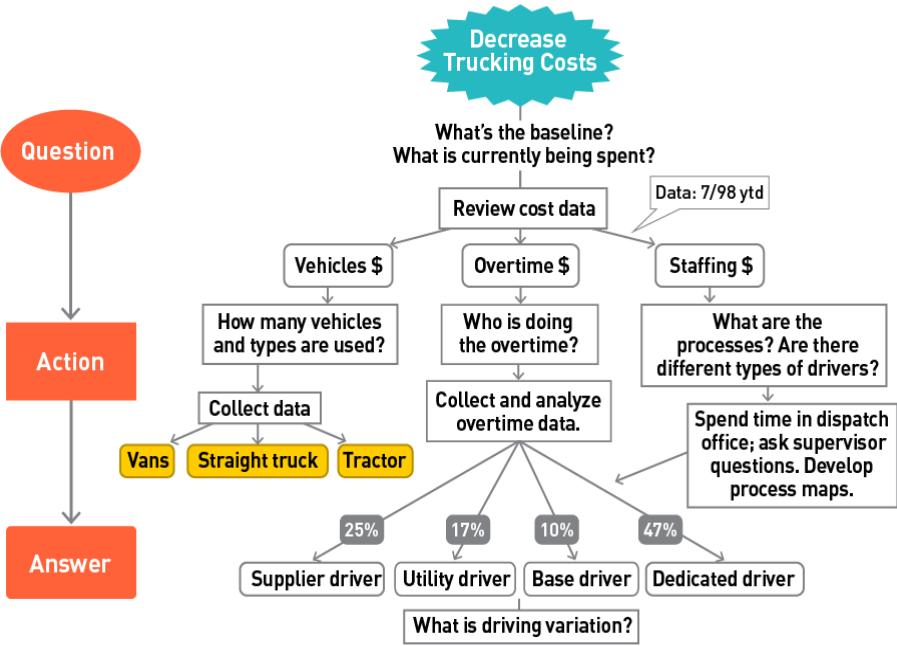
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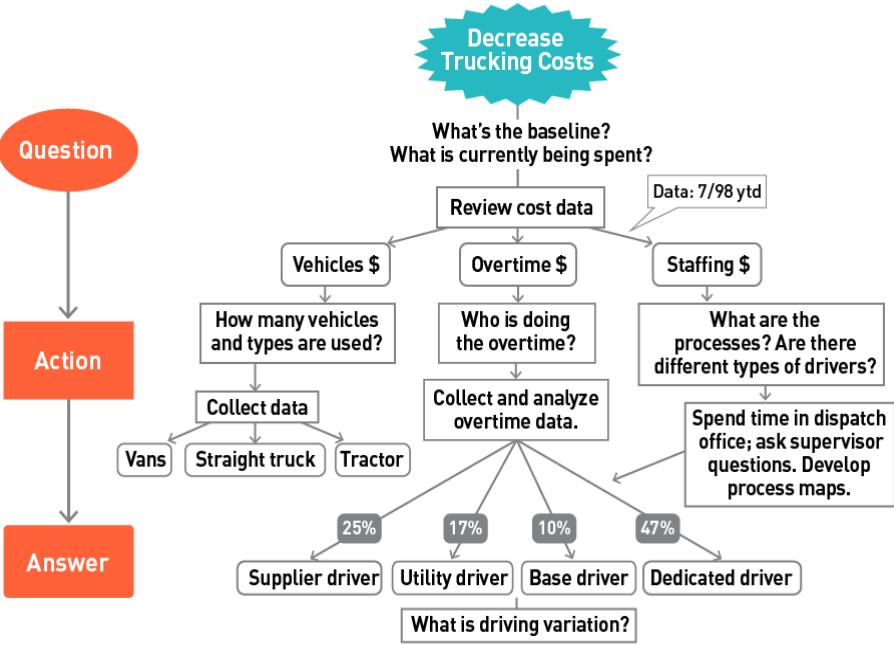
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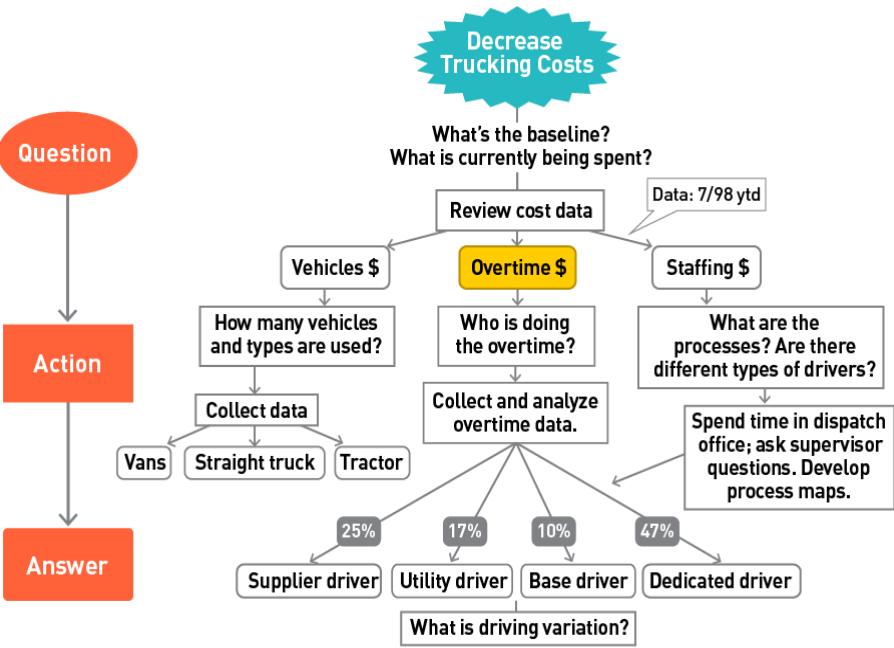
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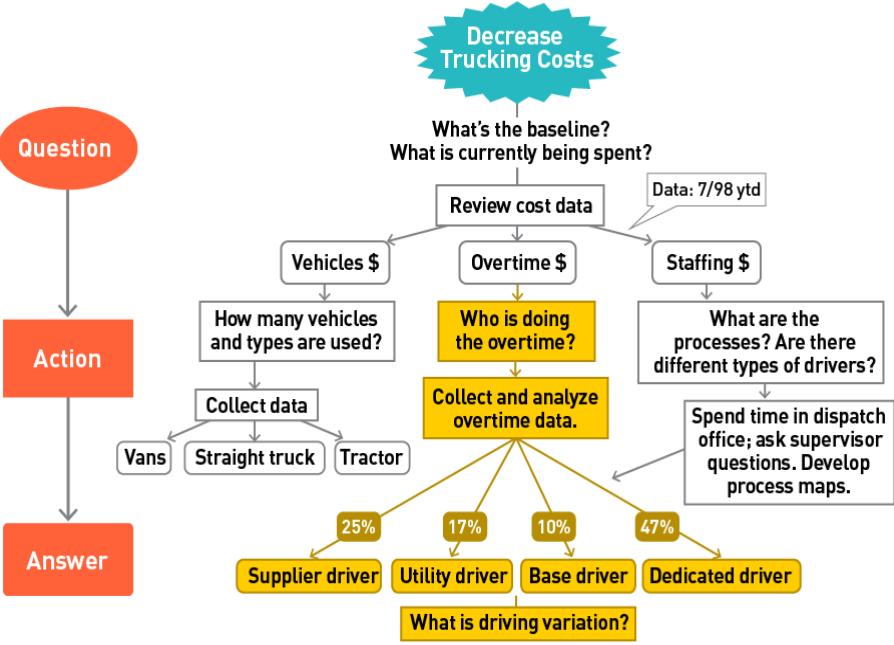


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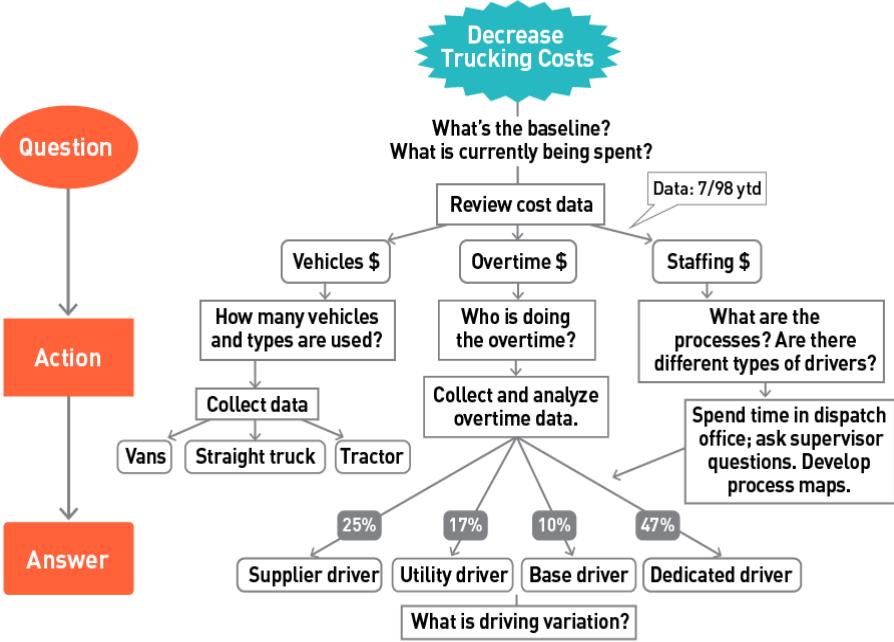
Thought Process Map

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Thought Process Map

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The thought process map is an excellent tool for explaining what you did and why you did it.

S**Suppliers**

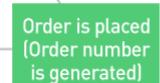
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- Serial Number
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- Incentive Plan

Inputs**P****Process****Inbound Sales Process****O****Outputs**

- Sale
- Transfer
- Price Quote
- Order Status Request
- Information Request
- Cancelled Order

C**Customer**

- External Customer
- Inbound Sales Rep
- Management
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Inbound call
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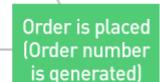
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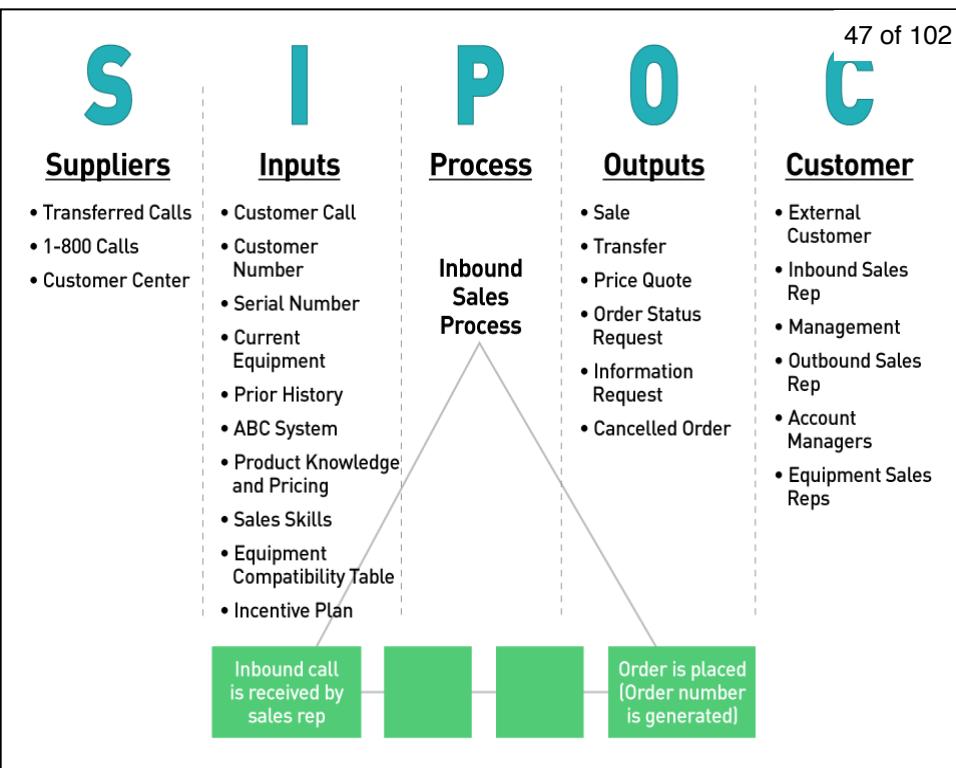
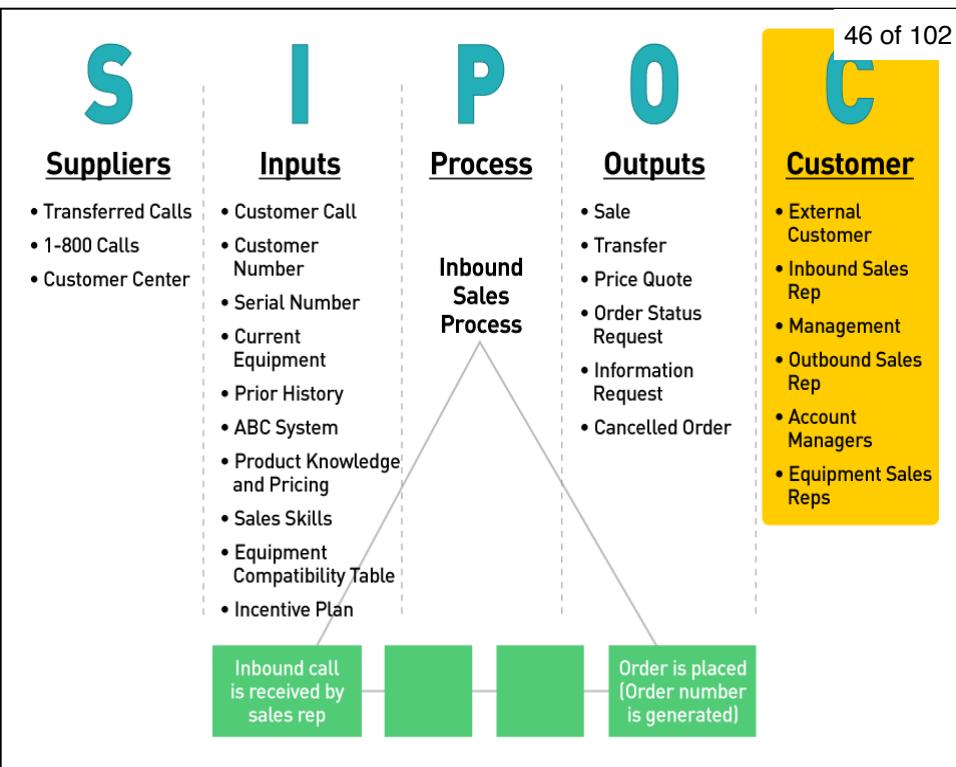
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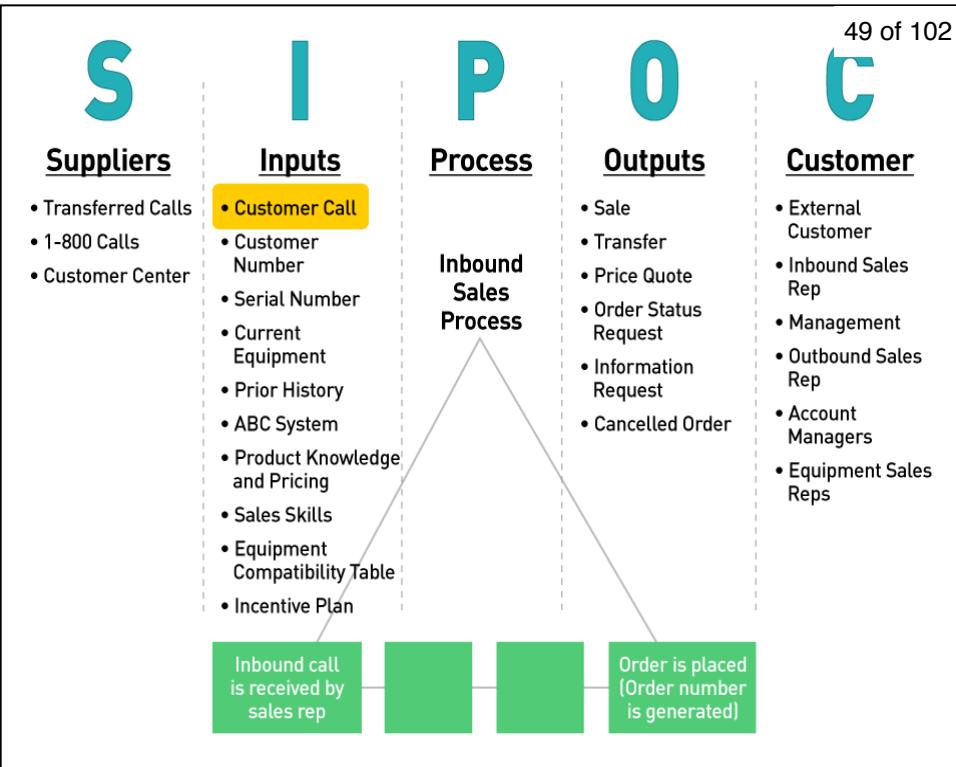
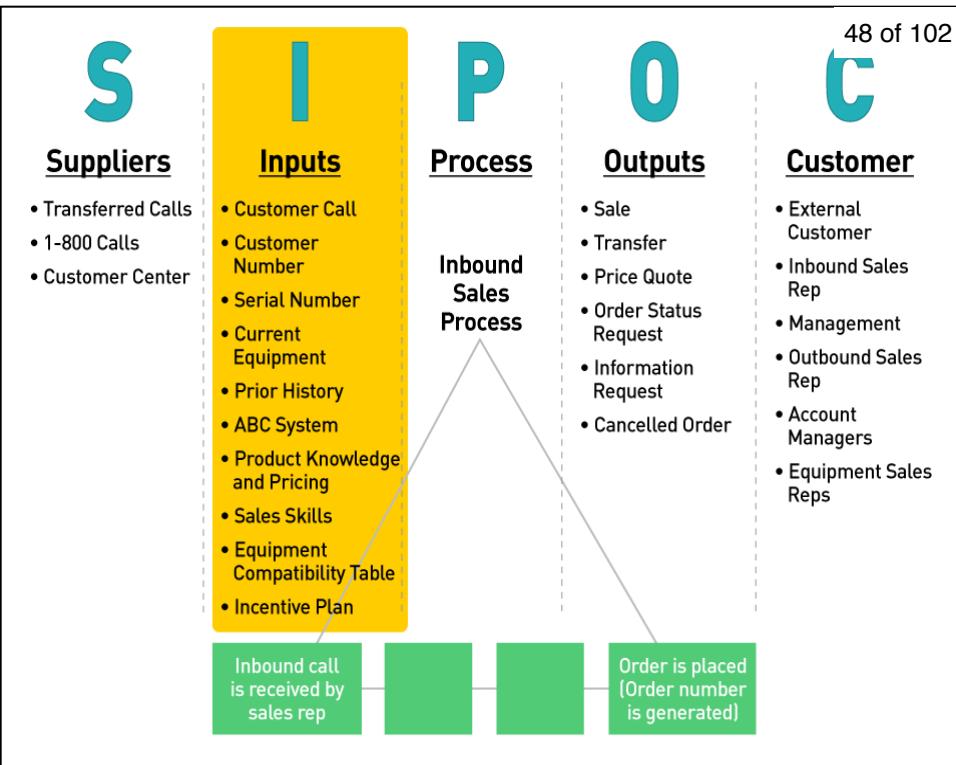
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**Remember: Our ultimate goal is to determine
 $Y = f(x)$, where Y is the output and x is the input.**

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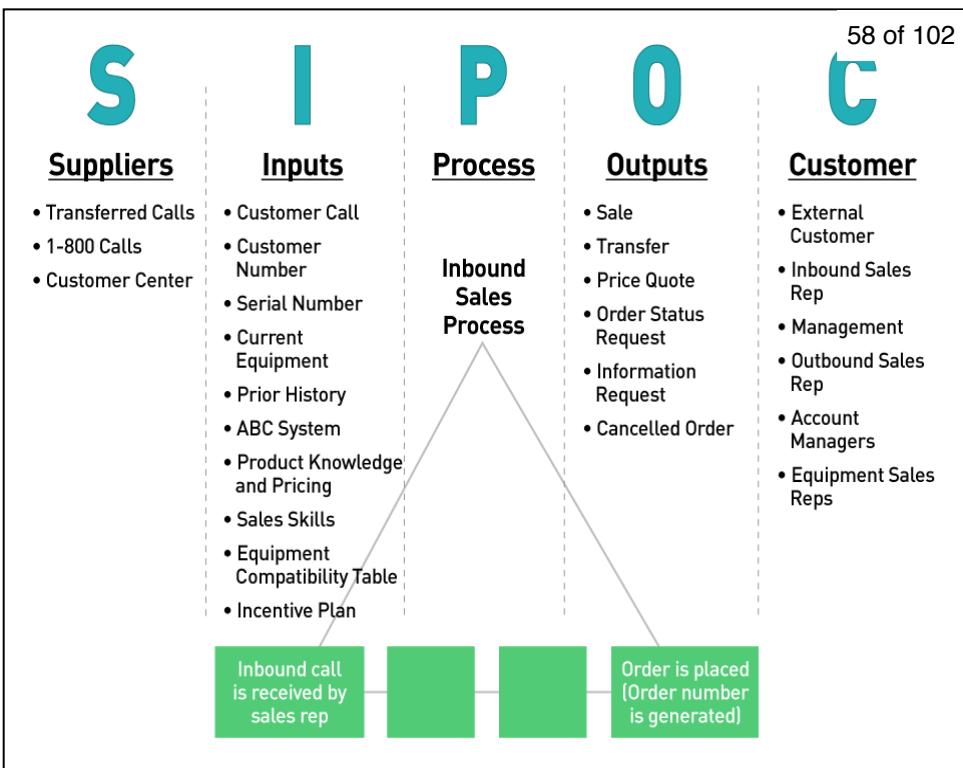
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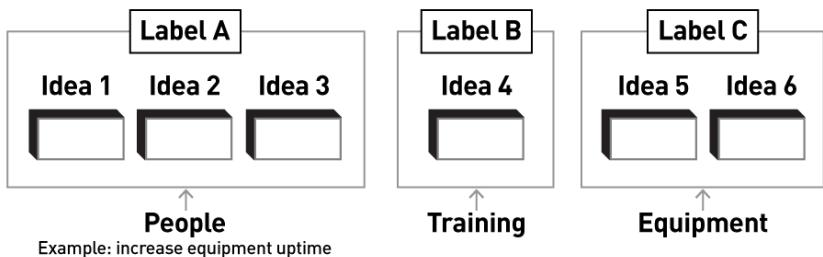






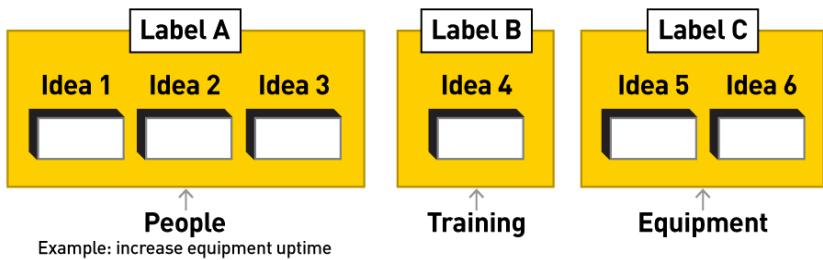
Affinity Diagram

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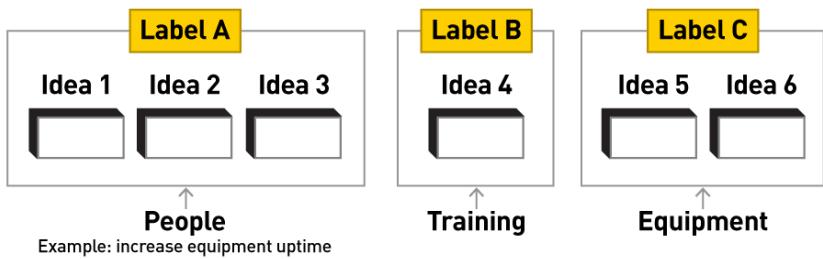
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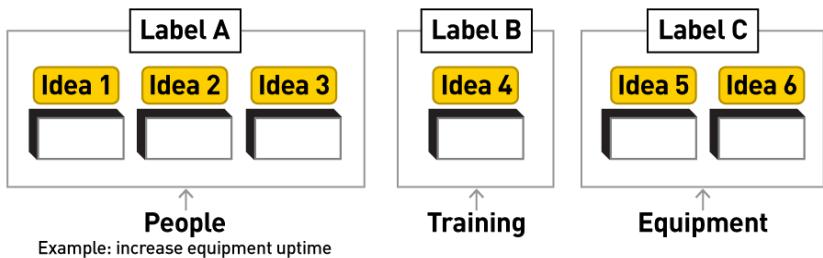
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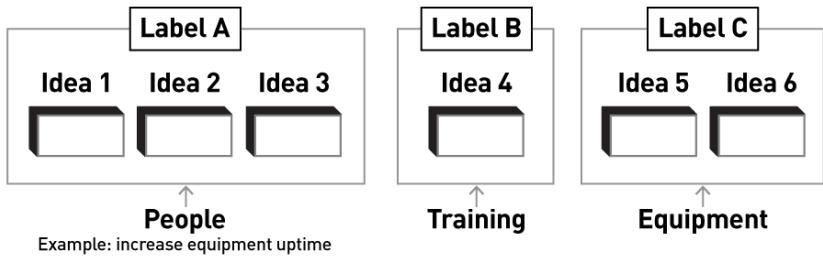
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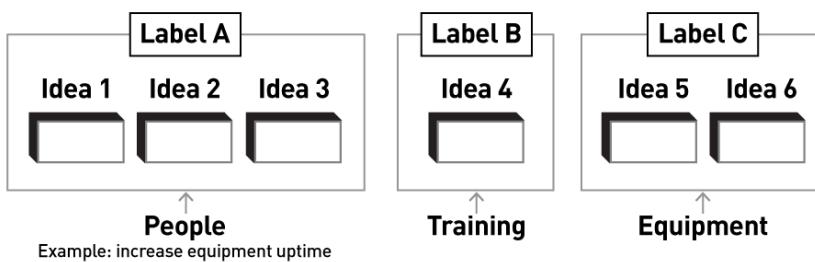
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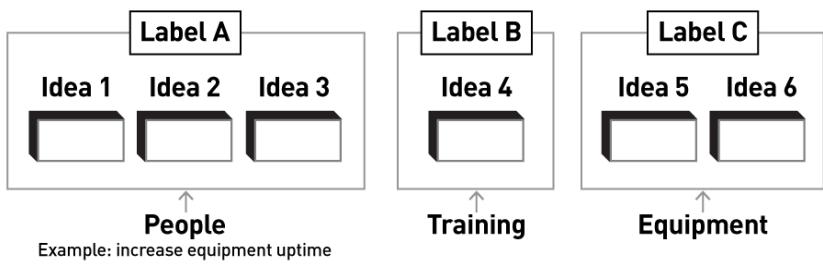


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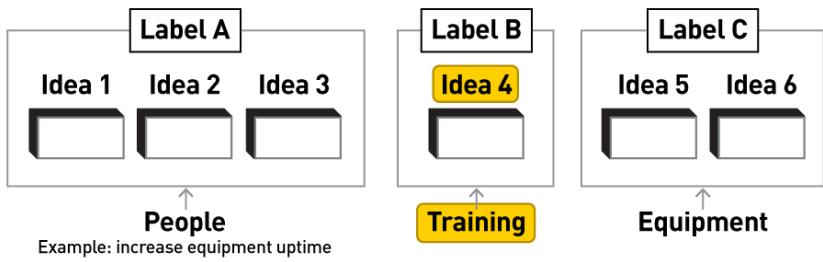
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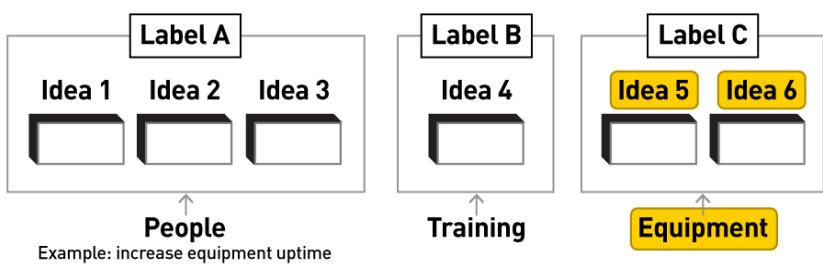
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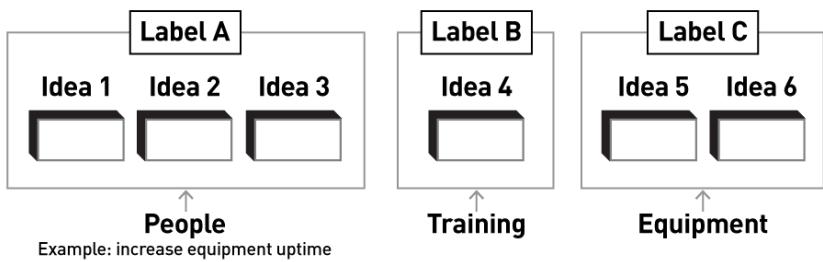
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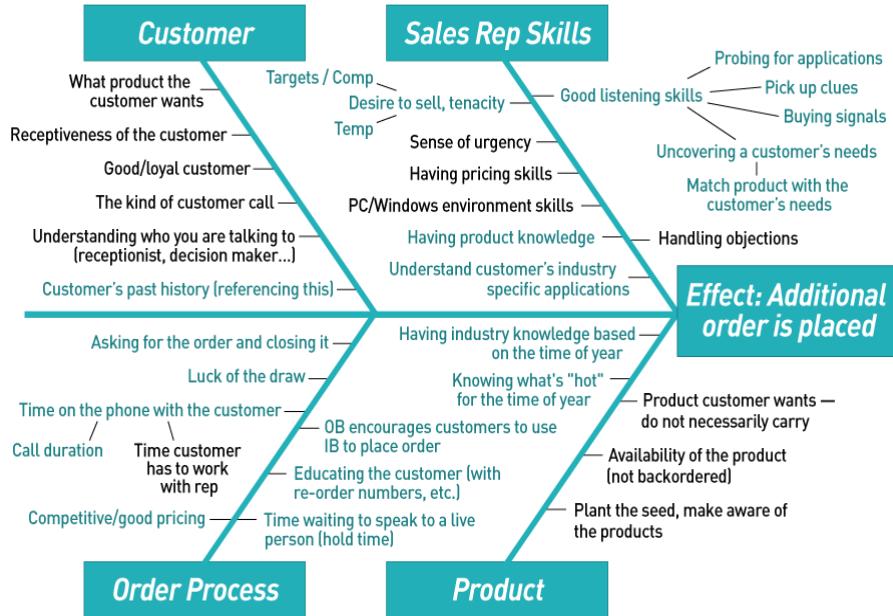
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Identifying Potential Critical Xs

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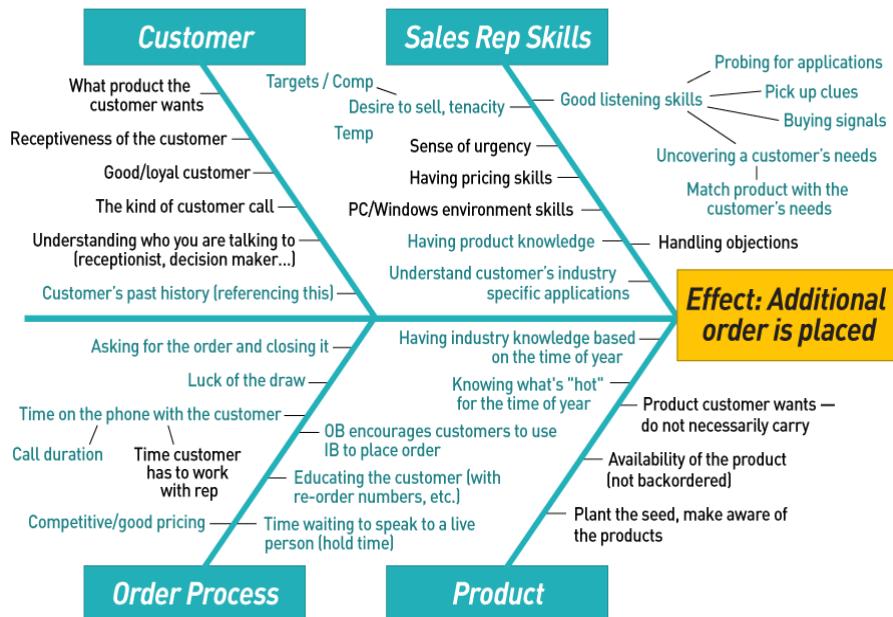


The cause and effect diagram provides a way to identify likely root causes of a problem, and to document/understand the sources of process variability.

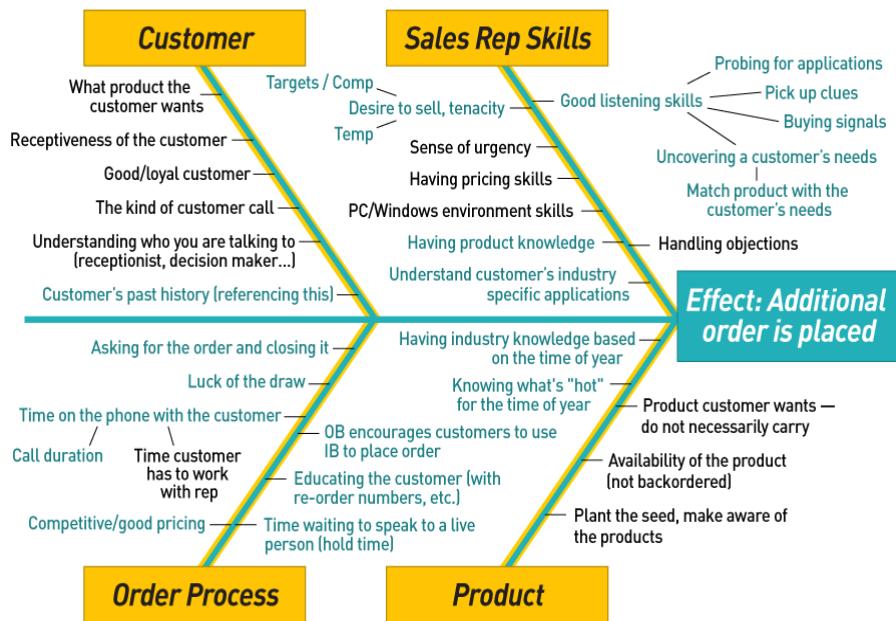
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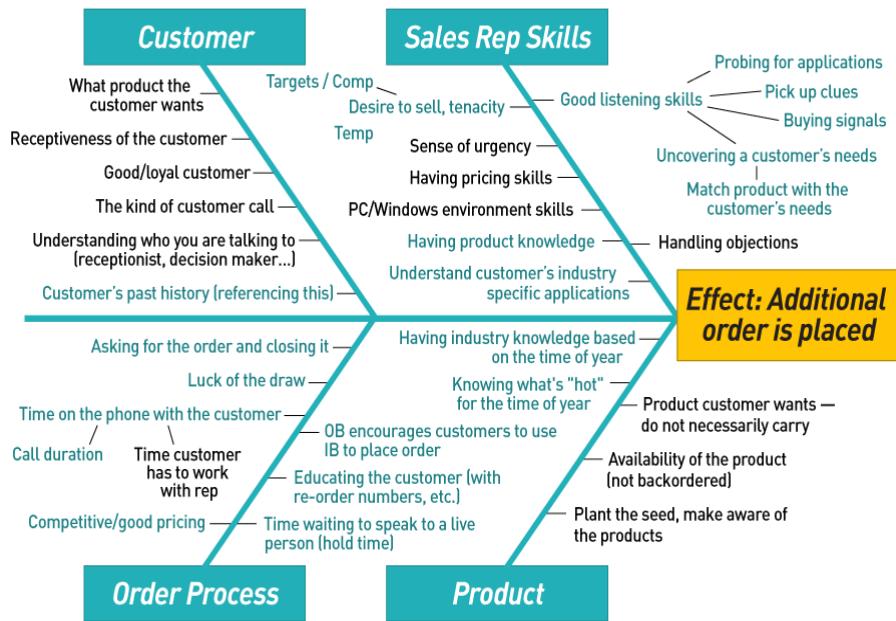
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Identifying Potential Critical Xs

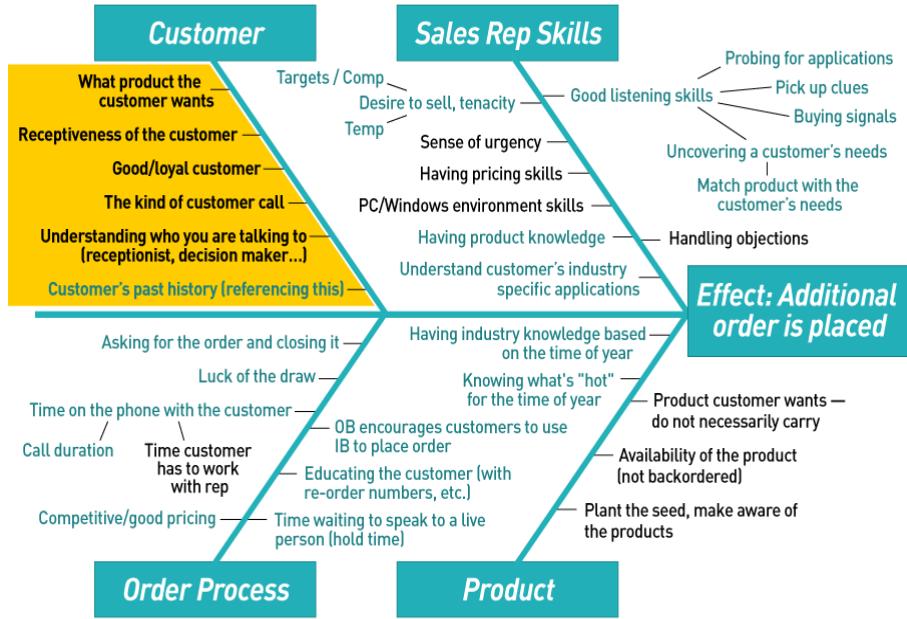


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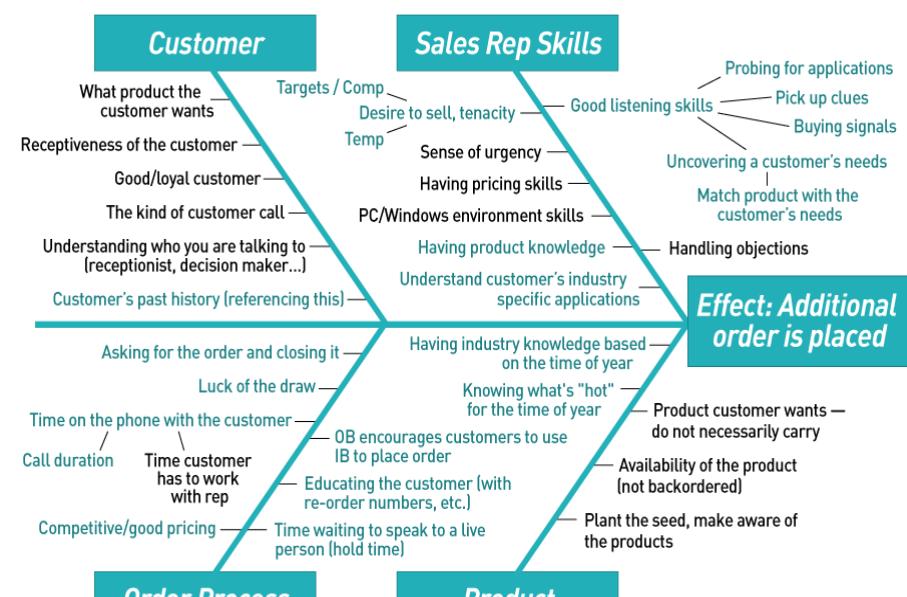
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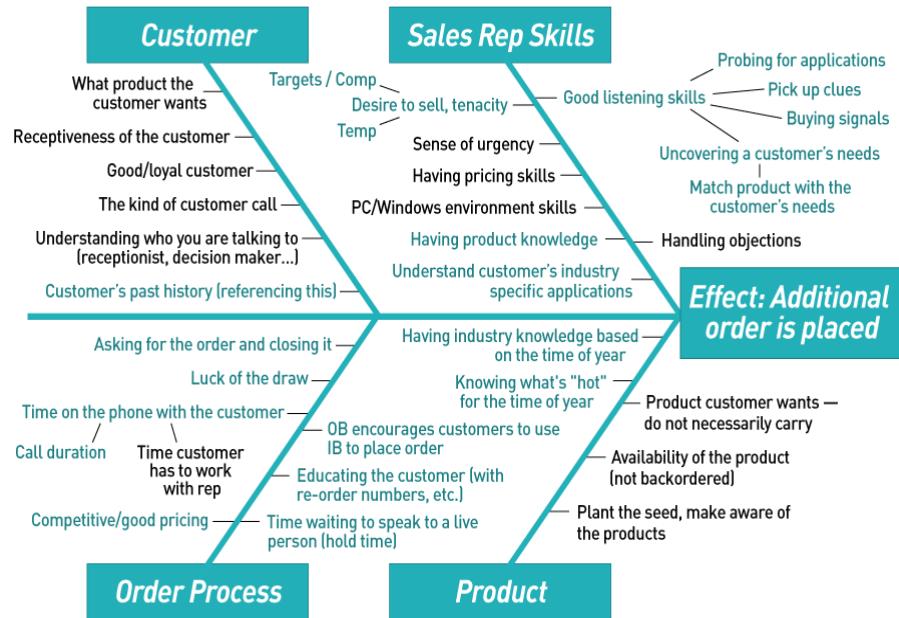
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Identifying Potential Critical Xs

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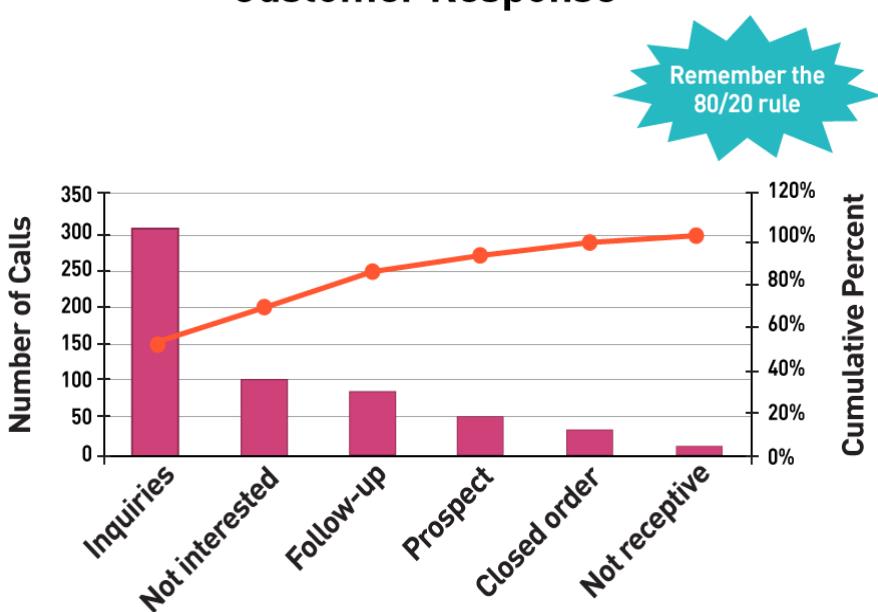
79 of 102

Note that MS Word provides cause-and-effect diagram templates:

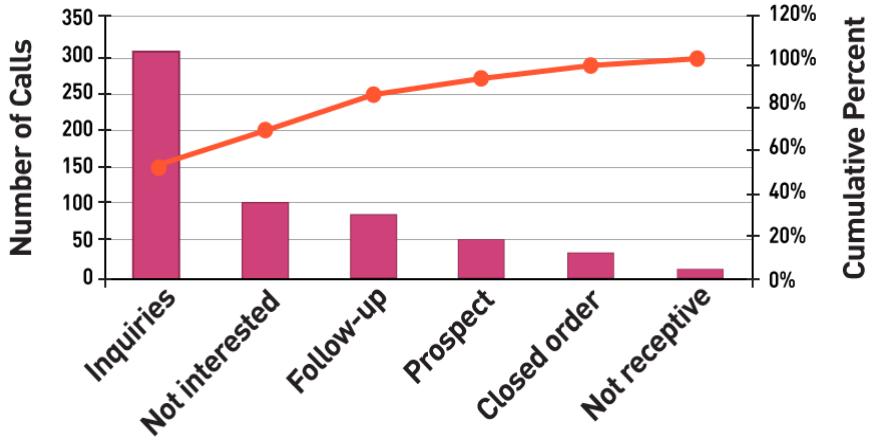
File → New → Templates → Charts and Diagrams.

Pareto Chart
Customer Response

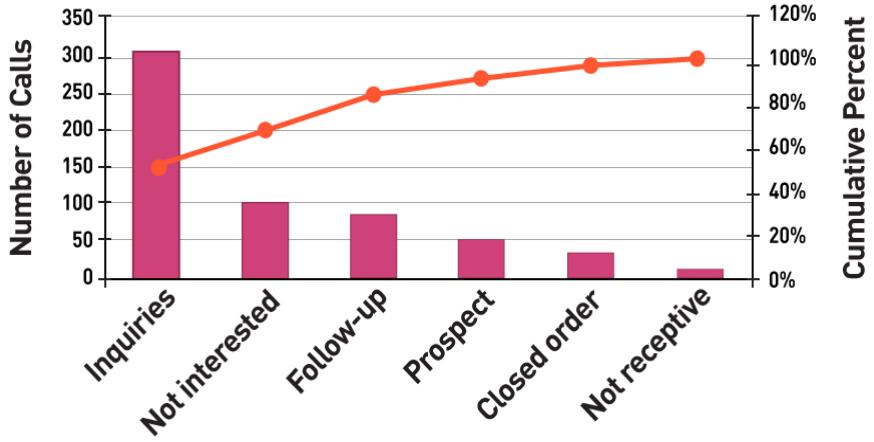
80 of 102



Pareto Chart Customer Response

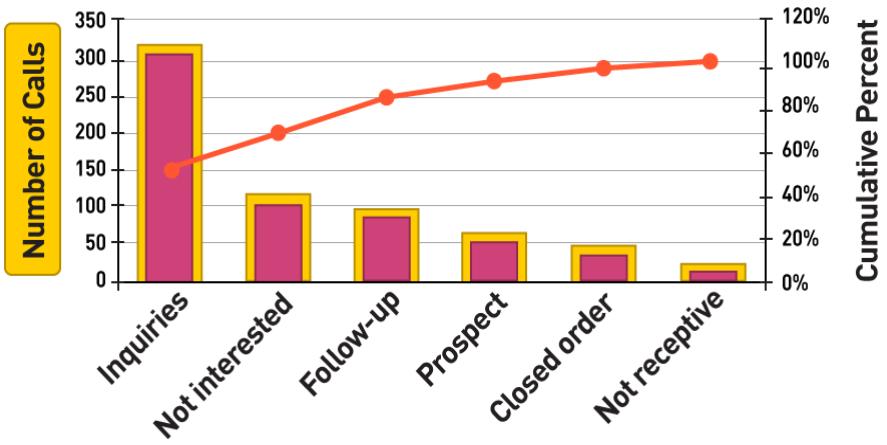


Pareto Chart Customer Response



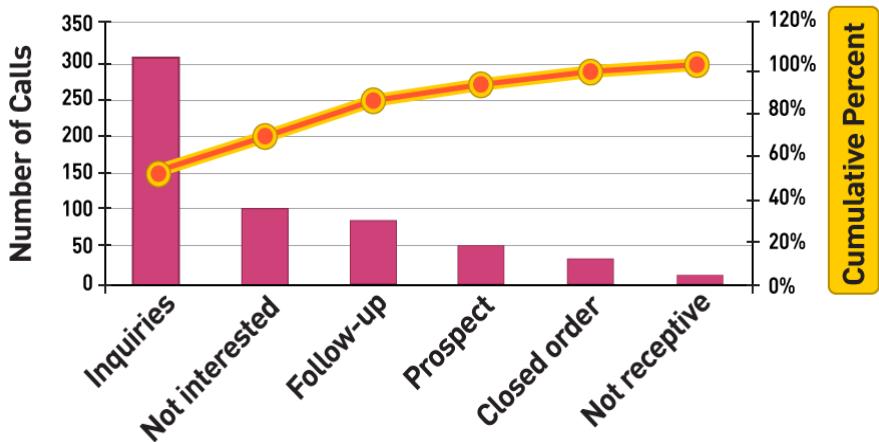
Pareto Chart Customer Response

Remember the
80/20 rule



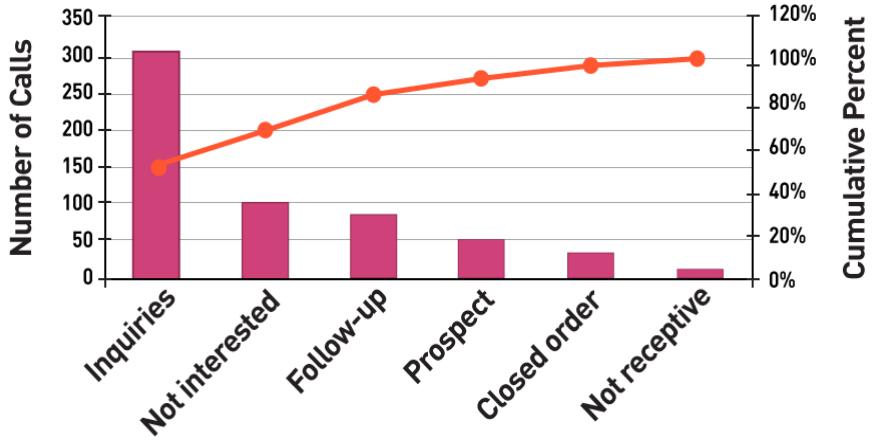
Pareto Chart Customer Response

Remember the
80/20 rule



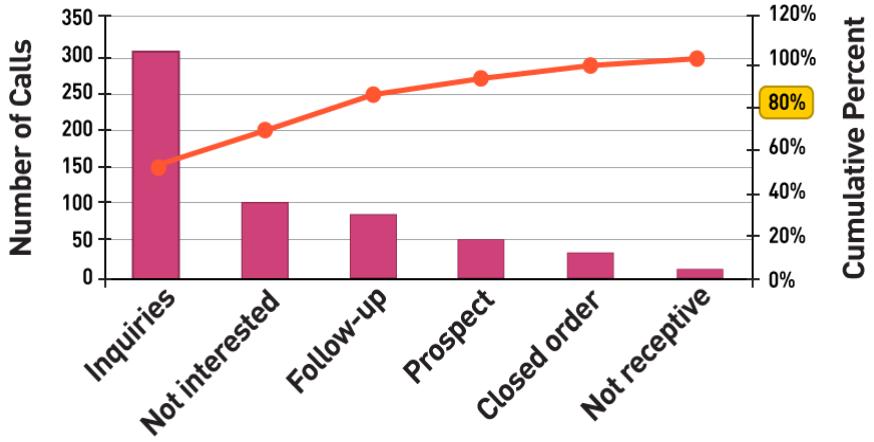
Pareto Chart Customer Response

Remember the
80/20 rule



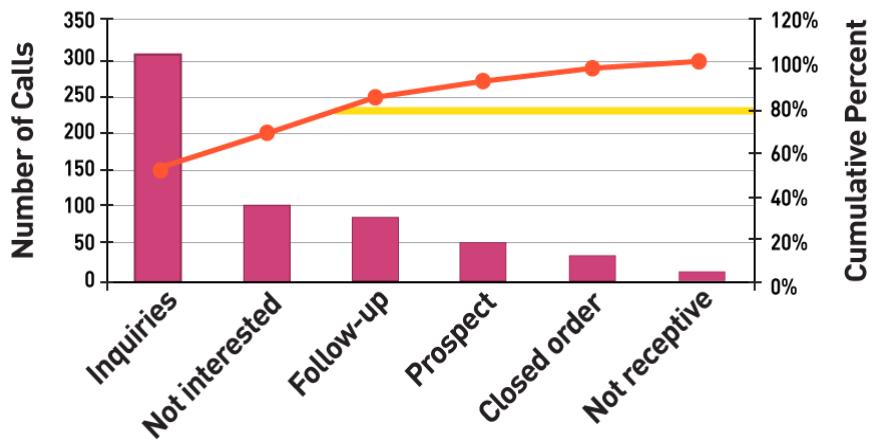
Pareto Chart Customer Response

Remember the
80/20 rule



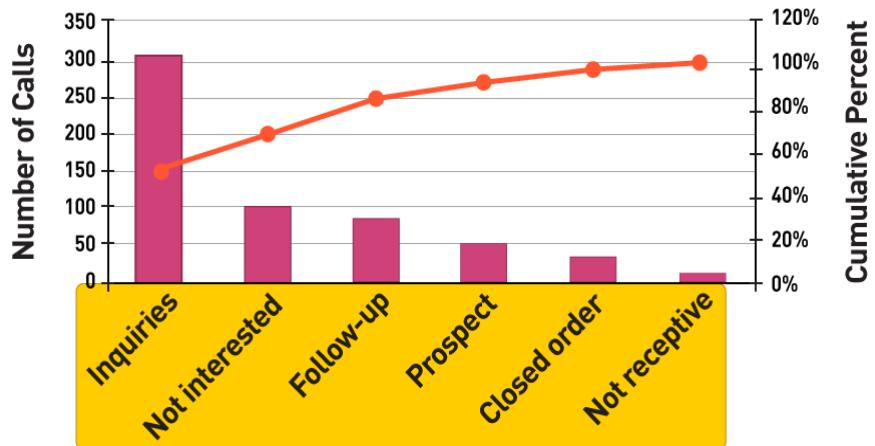
Pareto Chart Customer Response

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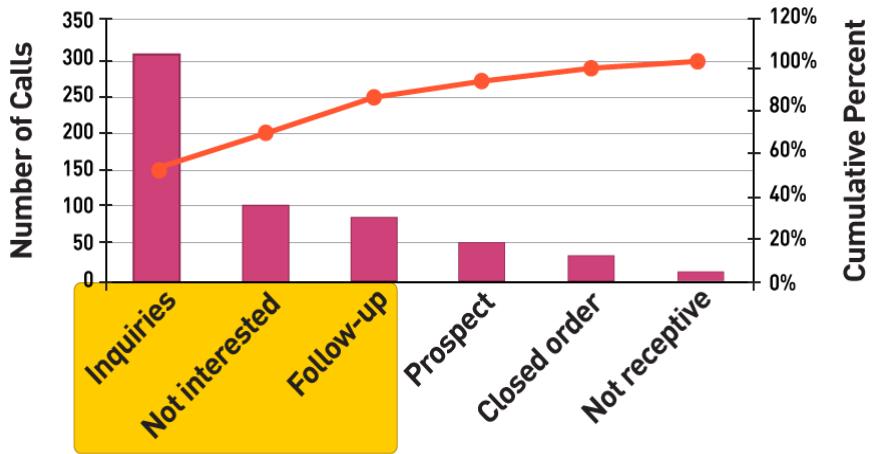
Pareto Chart Customer Response

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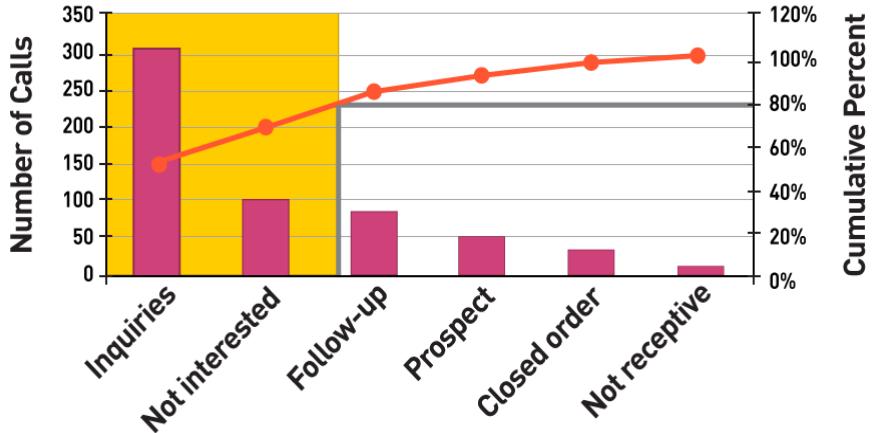
Pareto Chart Customer Response

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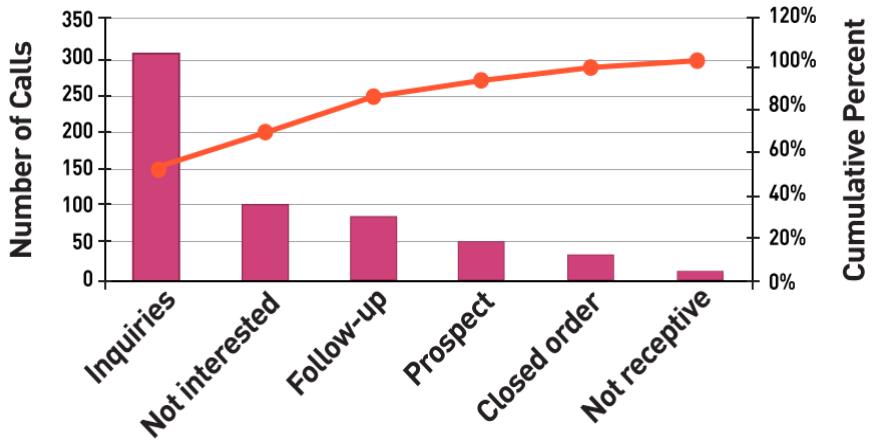
Pareto Chart Customer Response

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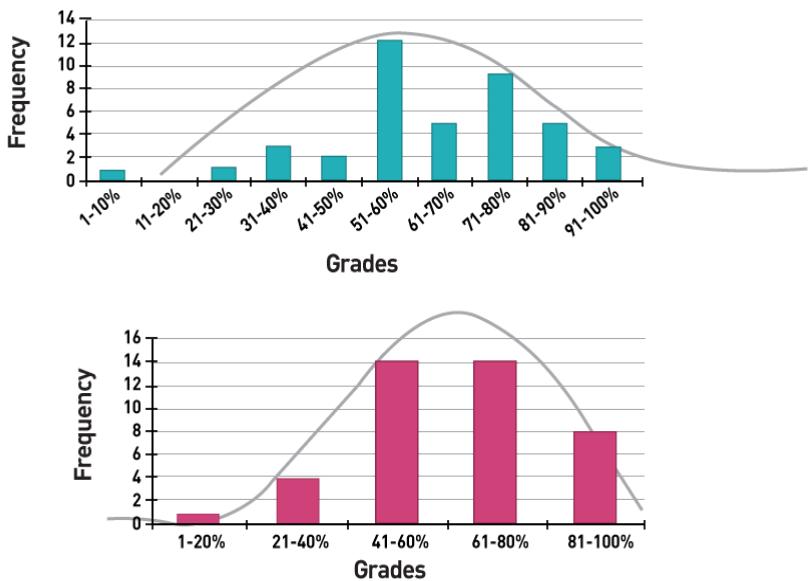
Pareto Chart Customer Response

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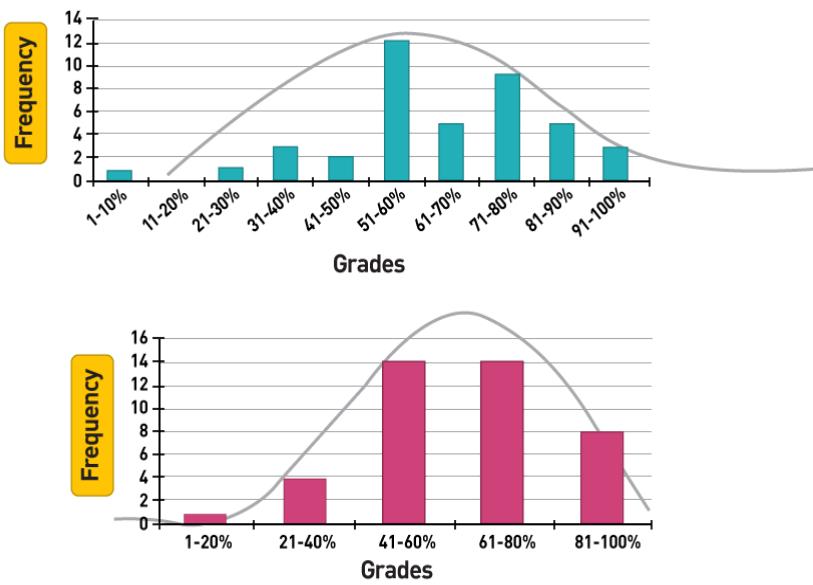
Histogram/Frequency Distribution

Shows the shape of data; a visual representation of variability



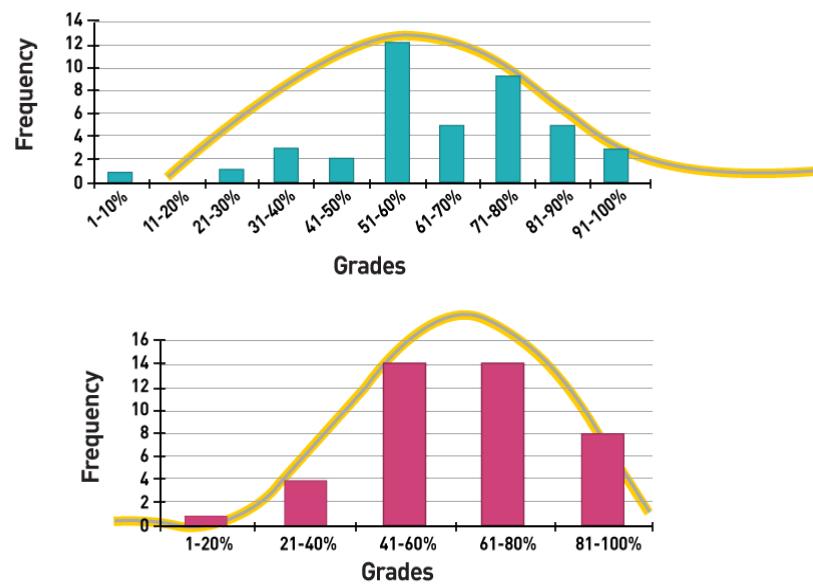
Histogram/Frequency Distribution

Shows the shape of data; a visual representation of variability



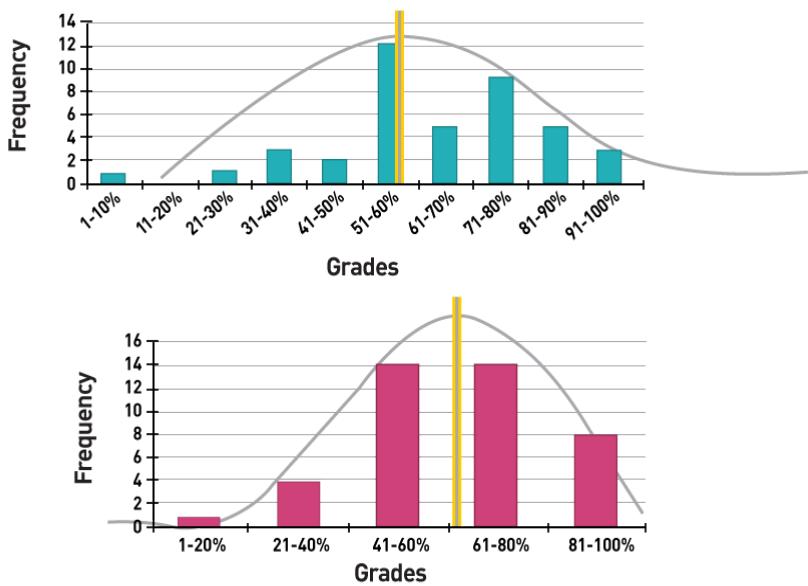
Histogram/Frequency Distribution

Shows the shape of data; a visual representation of variability



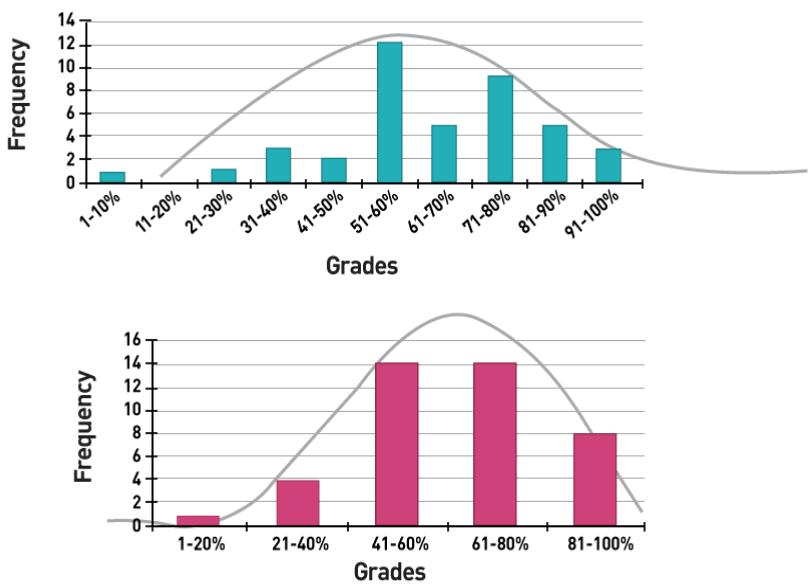
Histogram/Frequency Distribution

Shows the shape of data; a visual representation of variability

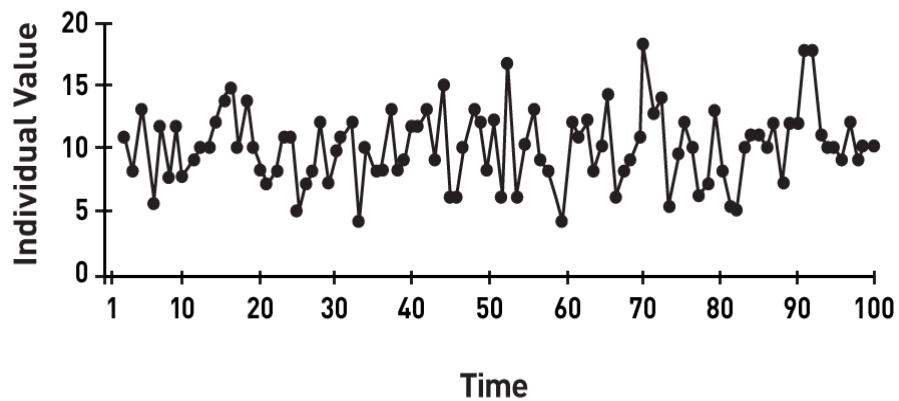


Histogram/Frequency Distribution

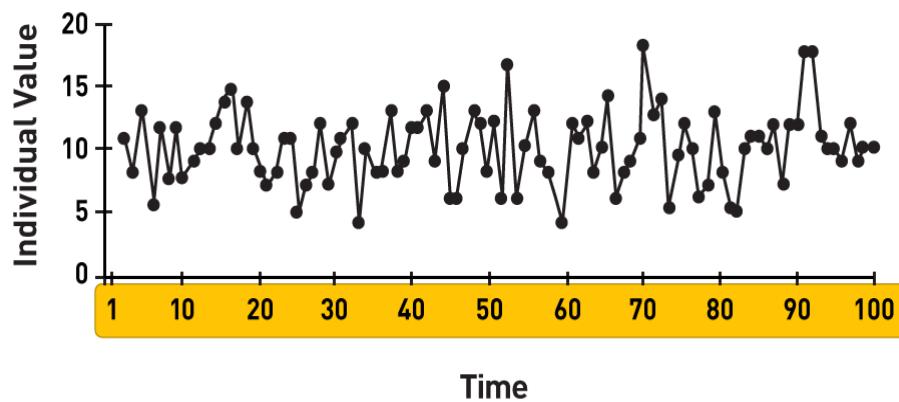
Shows the shape of data; a visual representation of variability



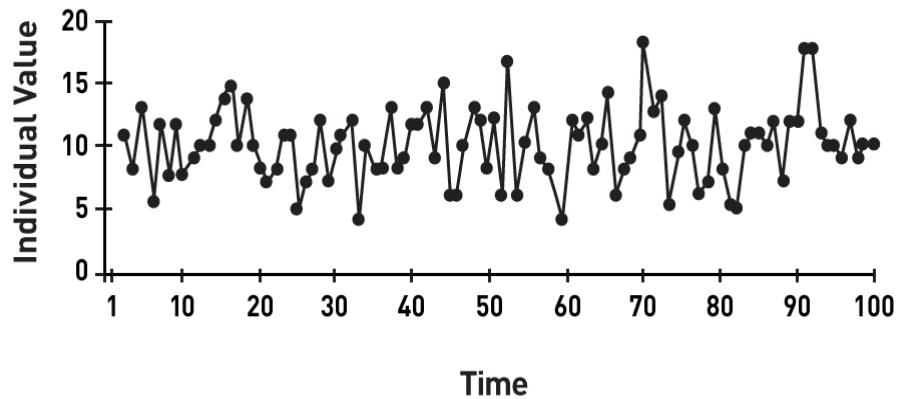
Trend Chart (or Time Plot)



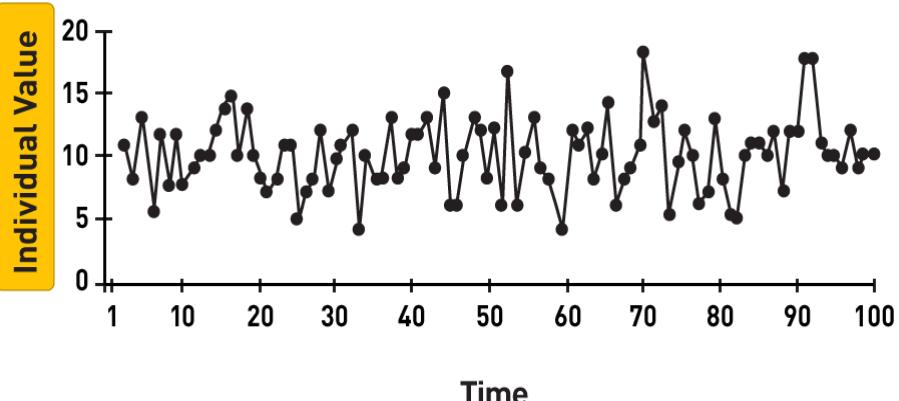
Trend Chart (or Time Plot)



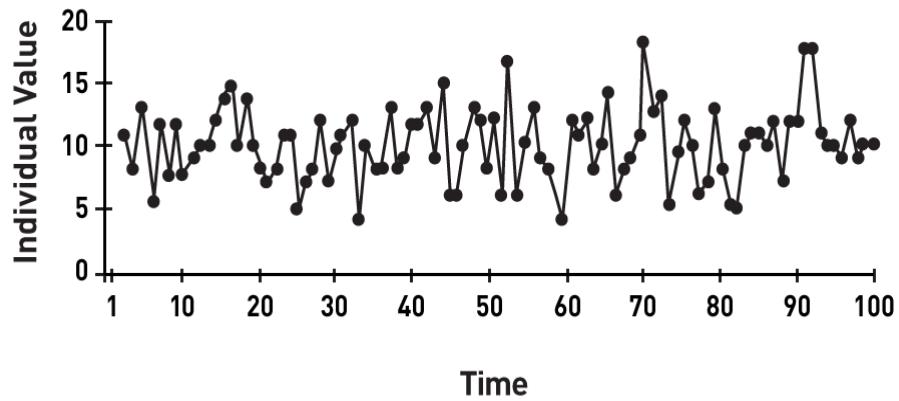
Trend Chart (or Time Plot)



Trend Chart (or Time Plot)



Trend Chart (or Time Plot)



The tools we have discussed in this unit don't require many calculations but are just as powerful and effective as some of the statistical/analytical tools we'll learn about later.