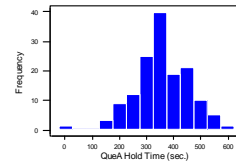


Understanding Variation

Continuous Measures
 Discrete Measures

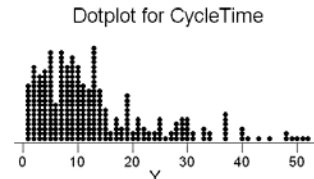
For A Point In Time

- **Histograms**

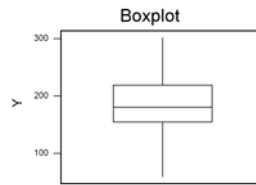


Graphs...

- **Dotplots**

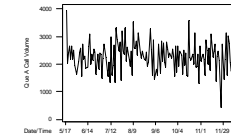


- **Boxplots**

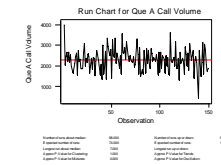


Over Time

- **Time Series Plots**

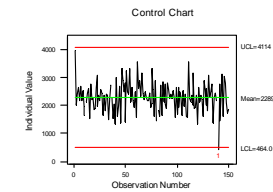


- **Run Charts**



- **Control Charts**

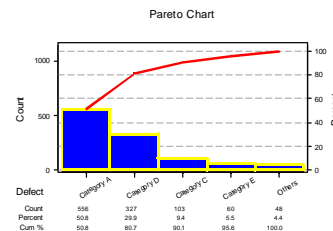
- **Individuals**
- **X-bar & R / X-bar & s**



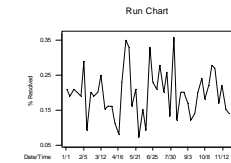
- **Tables**

Category A	556
Category B	48
Category C	103
Category D	327
Category E	60

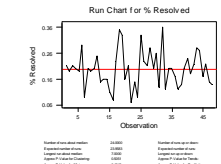
- **Pareto Charts**



- **Time Series Plots**

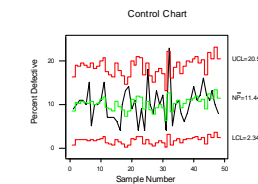


- **Run Charts**



- **Control Charts**

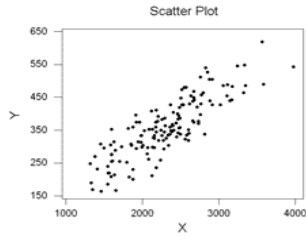
- **np or p (defectives, %'s)**
- **c or u (defects, dpu)**



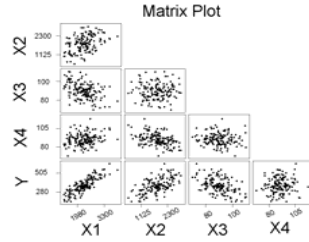
Understanding Relationships

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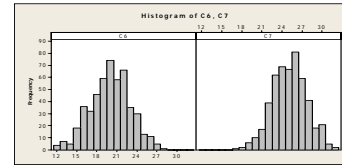
Scatterplots



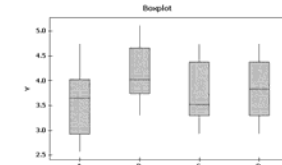
Matrix Plots



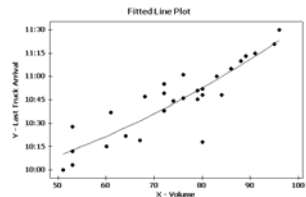
Histograms



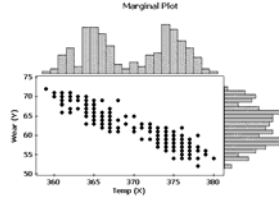
Boxplots



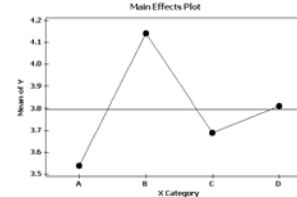
Fitted Line Plots



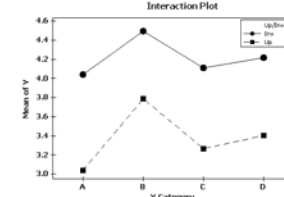
Marginal Plots



Main Effects Plots

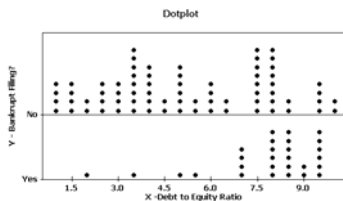


Interaction Plots



Y

Dot Plots



Individual Value Plots



Tables

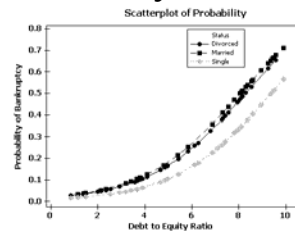
Category A	556
Category B	48
Category C	103
Category D	327
Category E	60

Contingency Tables

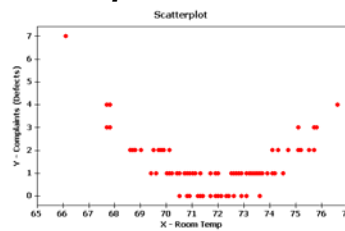
Type	Day of Week						Totals	
	S	M	T	W	T	F		S
A	1	3	1	1	0	4	2	12
B	6	7	4	6	5	5	8	41
C	4	5	1	2	0	7	12	31
D	0	4	1	0	0	8	6	19
Totals	11	19	7	9	5	24	28	103

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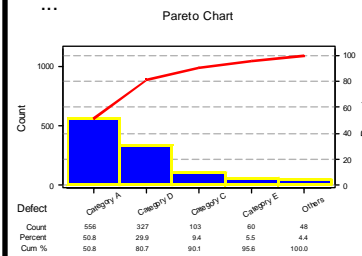
Probability Plots



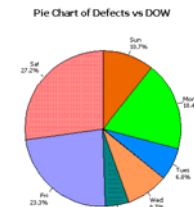
Scatterplot of Defects



Pareto Charts



Pie Charts



Continuous

X

Discrete (Categorical)