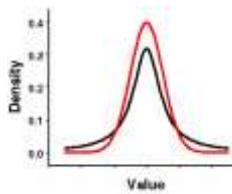
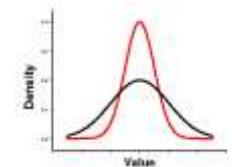
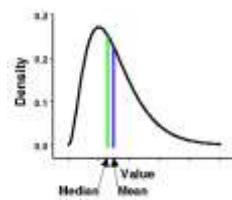


# Exploratory Spatial Data Analysis (ESDA)

## Summary Statistics

- Location
  - Mean, median, mode
  - Quantiles: quartiles, percentiles
- Spread
  - Variance, standard deviation
- Shape
  - Skewness – positive , negative
  - Kurtosis – leptokurtic, platykurtic



# Voronoi Map (Thiessen Polygons)

- Why use a Voronoi map?
- ArcGIS tools
  - Proximity toolbox: Create Thiessen Polygons
  - Geostatistical Analyst toolbar: Voronoi map
- Assigning values to polygons

## *Local Smoothing*

Mean

Mode

Median

## *Local Variation*

Standard deviation

Interquartile range

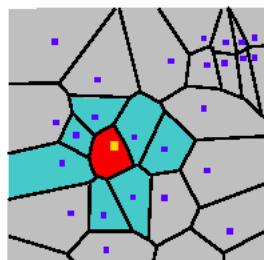
Entropy

## *Local Outliers*

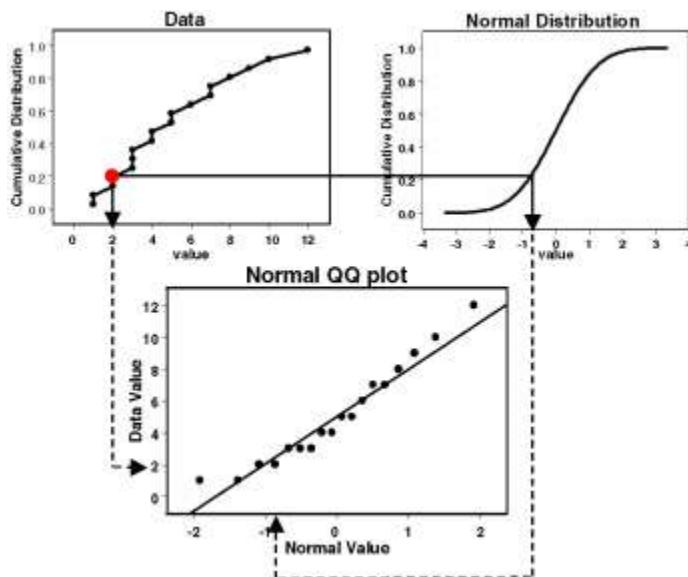
Cluster

## *Local Influence*

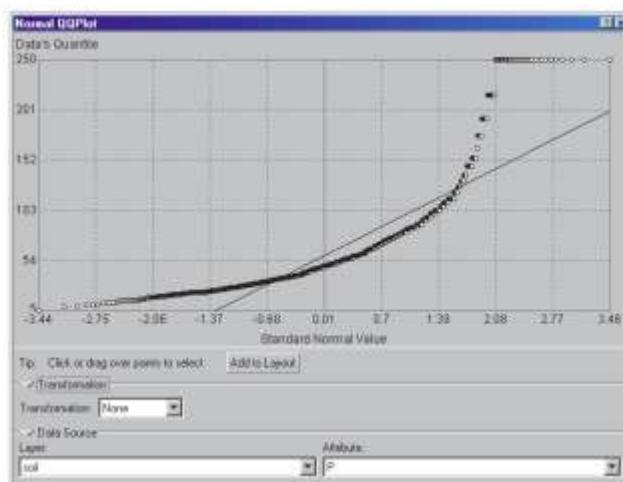
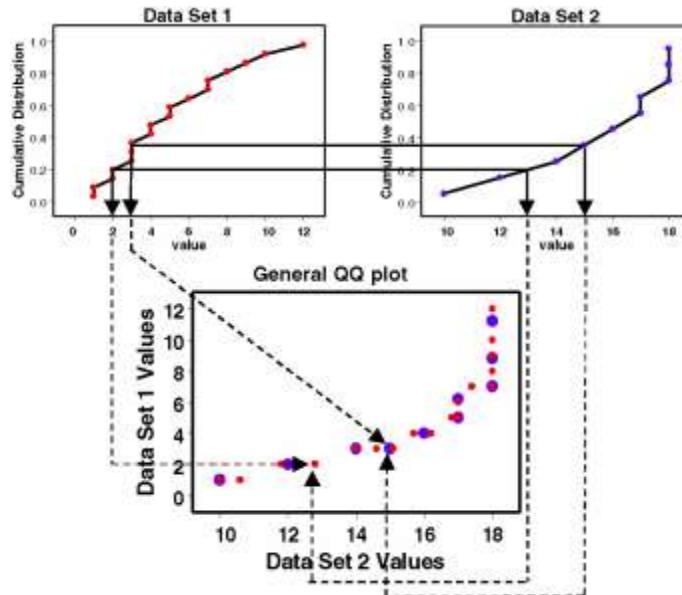
Simple



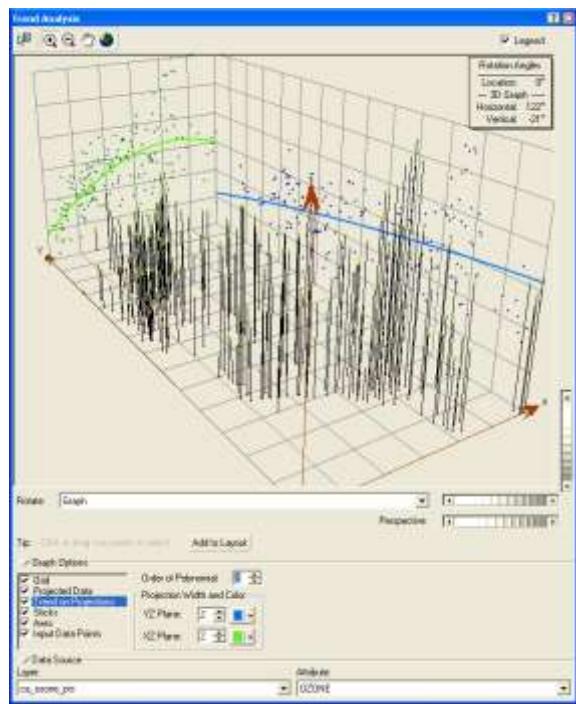
# Comparing Distributions – Normal QQPlot



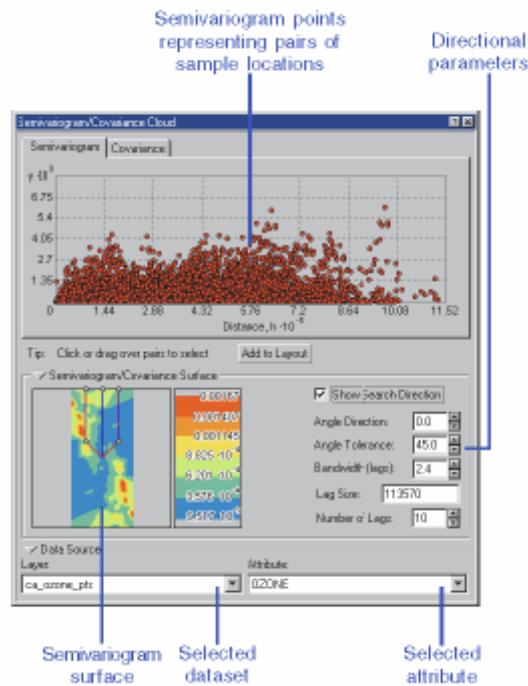
## Comparing Distributions – General QQPlot



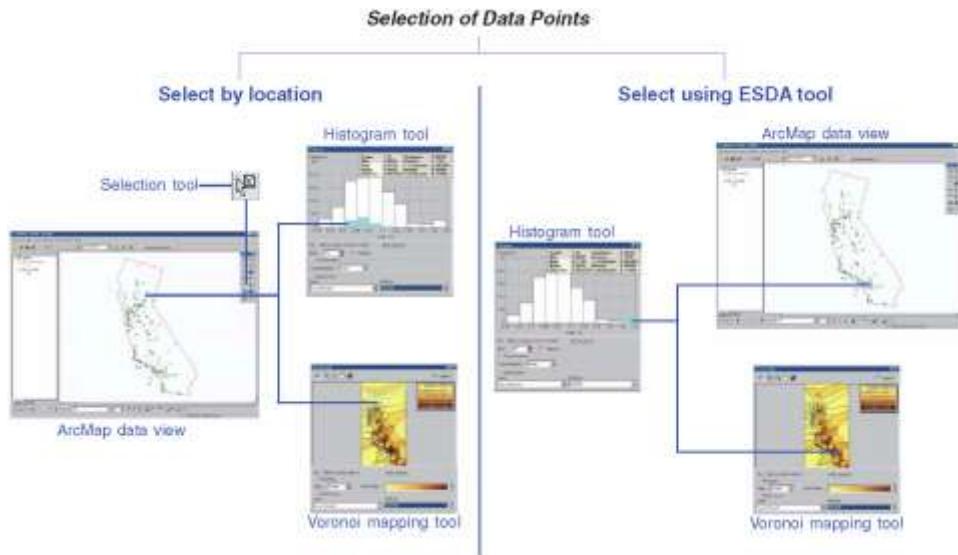
## Trend Analysis



## Semivarogram Cloud



# Brushing & Linking



## Crosscovariance Cloud

