

Visualization 2

Applied Multivariate Statistics – Spring 2013



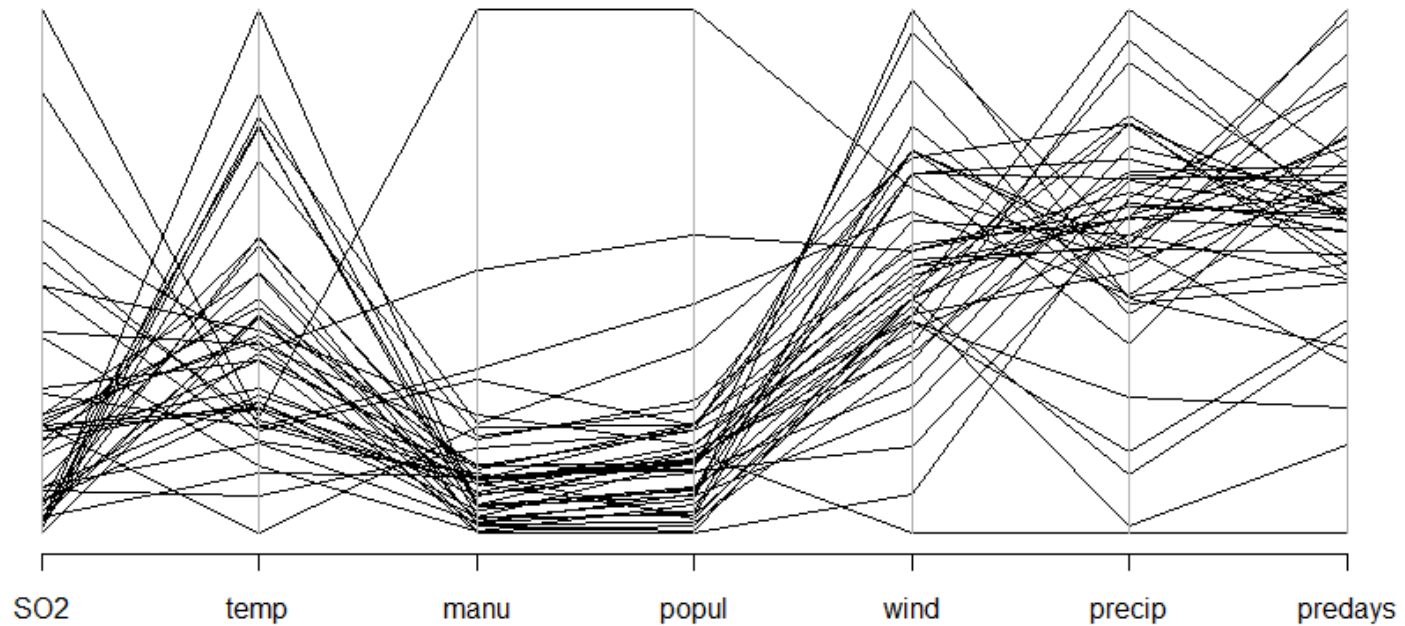
Goals

- Continuous data
 - Bubbleplot
 - Parallel Coordinate Plots
 - Glyphplots (stars)
- Mixed data: One suggestion for a hard problem
- Discrete data: Next lecture

- Teaser: googleVis (not for exam)

Parallel Coordinate Plots

- Easily overcrowded

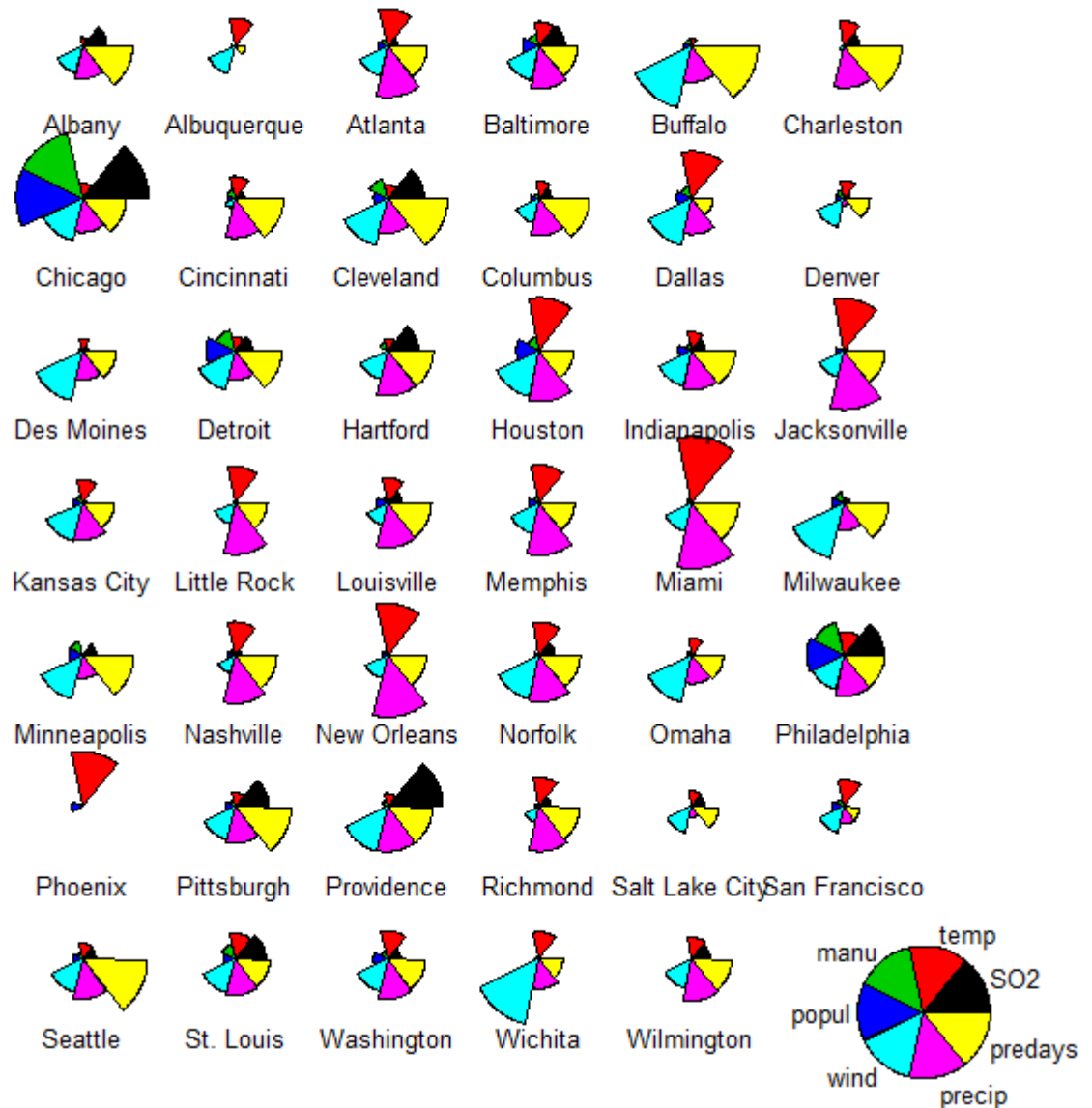


Glyphplots for continuous data

- Each data sample is represented by a symbol (=glyph) with some aspects
- Depending on data values, aspects are more or less pronounced
- Very good, if you have few samples (<50) and not too many variables (<10)

Glyphplots: Stars

- Which cities are special?
- Which cities are like New Orleans?
- Seattle and Miami are quite far apart; how do they compare?



If data is not continuous...

- Categorical: See next lecture
- Mixed: Very hard
 - parallel coordinate plots might work
 - use colors or plot symbols

Export graphics

- “Export” button in Rstudio
- Functions `jpeg()`, `pdf()`, etc. in R

R commands to know

- Symbols
- Parcoord
- Stars

Teaser: R package “googleVis”

- Many useful visualization functions
- Output can be easily embedded in webpage

- Example: MotionChart
Show development of data over time

Next week

- Visualizing categorical data and making inference