Exploratory Analysis

**Plotting Systems in R**

1. The Base Plotting System

“Artist’s palette model: Start with blank canvas (plot function) and use annotation functions to add/modify (text, lines, points, axis)

Example:

library(datasets)

data(cars)

with(cars, plot(speed, dist))

1. The Lattice System

xyplot, bwplot: looking at how y changes with x across levels of z

margins/spacing set automatically because entire plot is specified at once

good for putting many plots on a screen

Example:

library(lattice)

state <- data.frame(state.x77, region = state.region)

xyplot(Life.Exp ~ Income | region, data = state, layout = c(4, 1))

1. The ggplot2 System

Automatically deals with spacings, text, titles but also allows you to annotate by “adding” to a plot.

Example:

library(ggplot2)

data(mpg)

qplot(displ, hwy, data = mpg)