

Today: 1-D Continuous

Sam Ventura

36-315

Today: Density Estimates, Kernels, Violin Plots
Rugs, Conditional Distributions, KS Tests

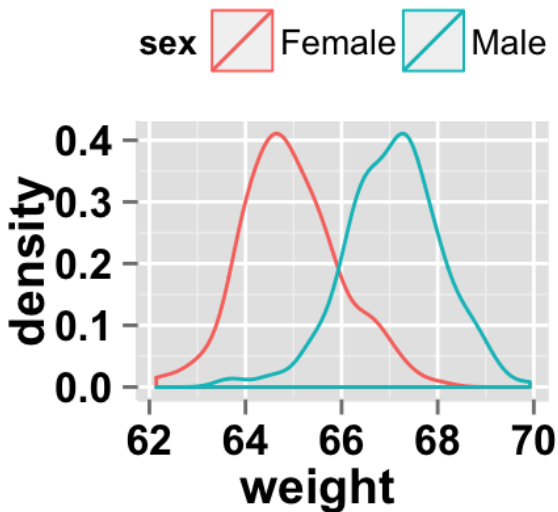
Department of Statistics
Carnegie Mellon University

February 13, 2017

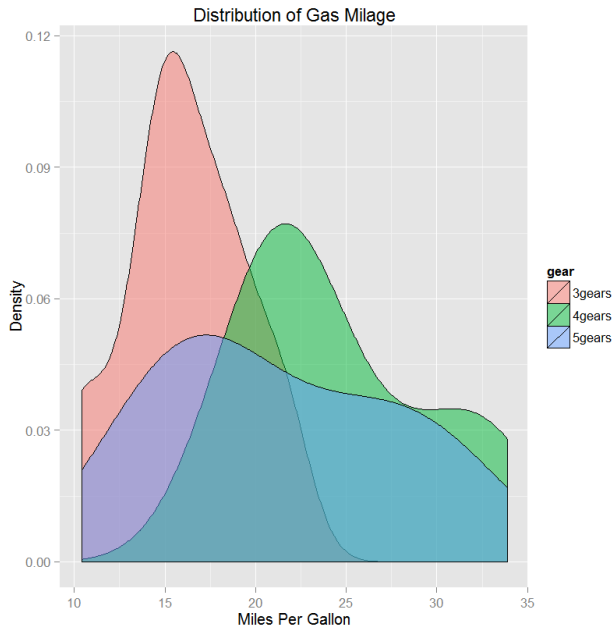
Conditional Distributions

1-D Kernel Density Estimation

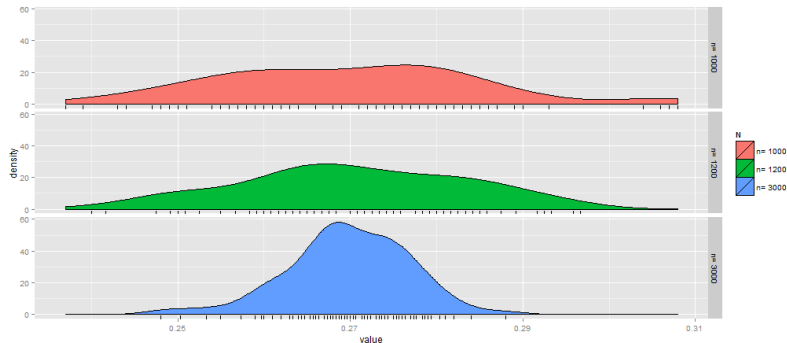
Density Estimates



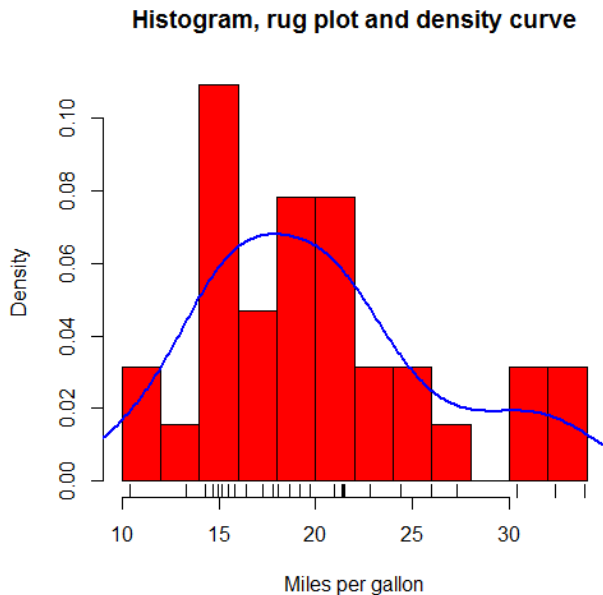
Density Estimates



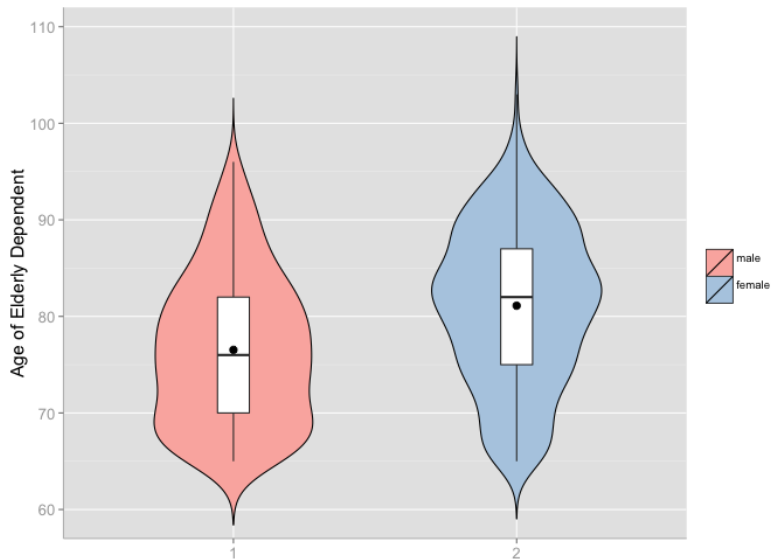
Density Estimates with “Rugs”



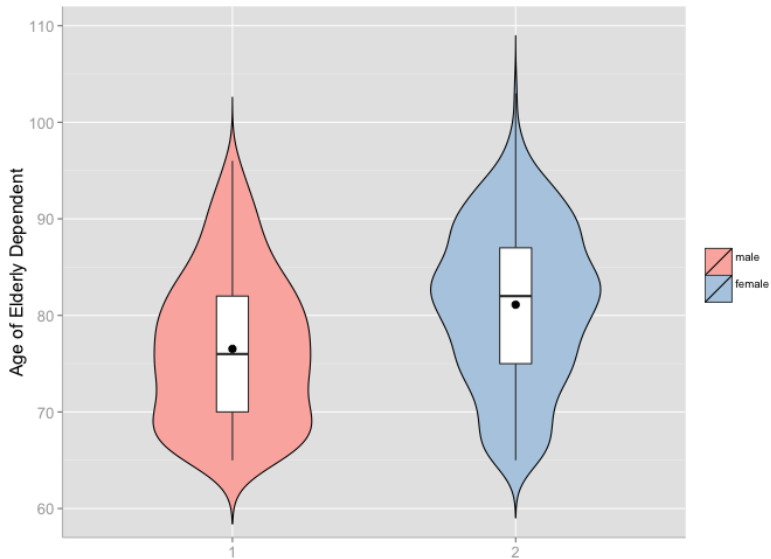
Histogram with Density Curve and Rug



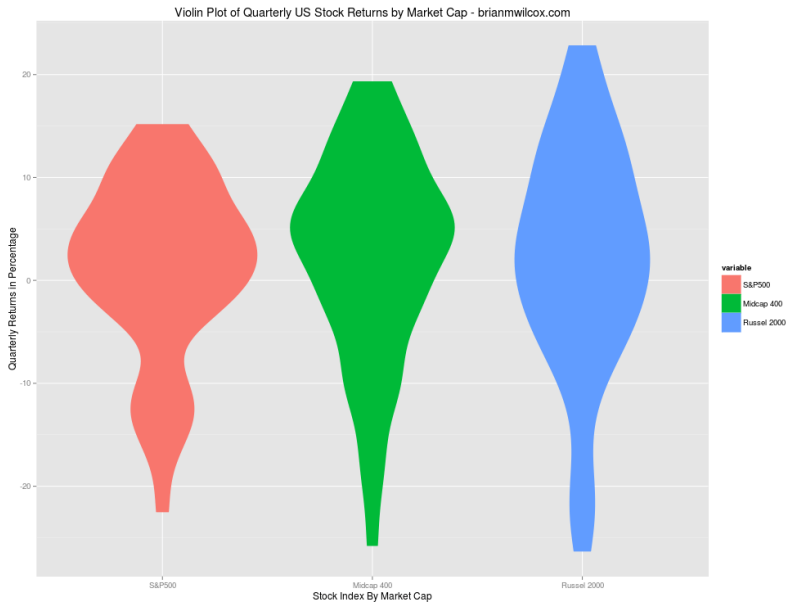
Violin Plots vs. Boxplots



Issues with Violin Plots?



Issues with Violin Plots?



Improved Violin Plot?



Kolmogorov-Smirnoff (KS) Tests

Kolmogorov-Smirnoff (KS) Test:
nonparametric test of the equality of
multiple 1-D continuous distributions

In R: **ks.test**