

# Today: 1-D Continuous

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36-315

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

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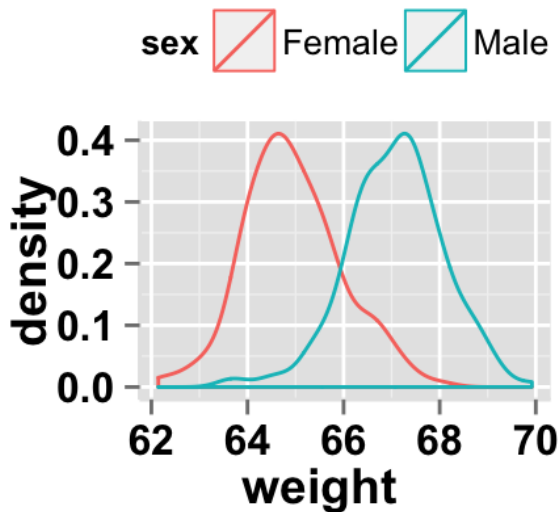
September 28, 2016

# Conditional Distributions

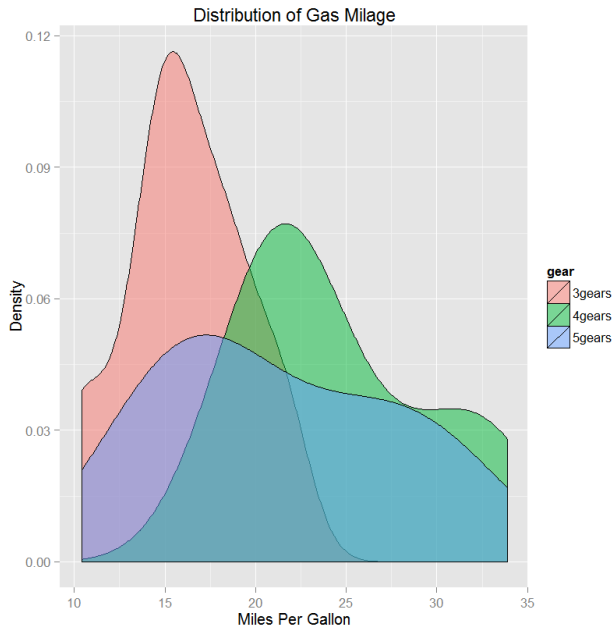
# 1-D Kernel Density Estimation



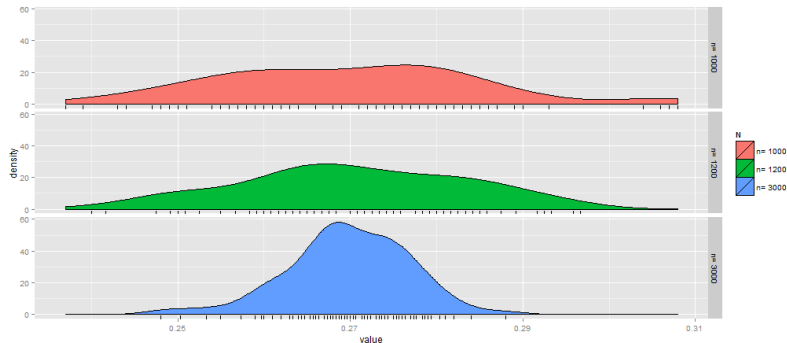
# Density Estimates



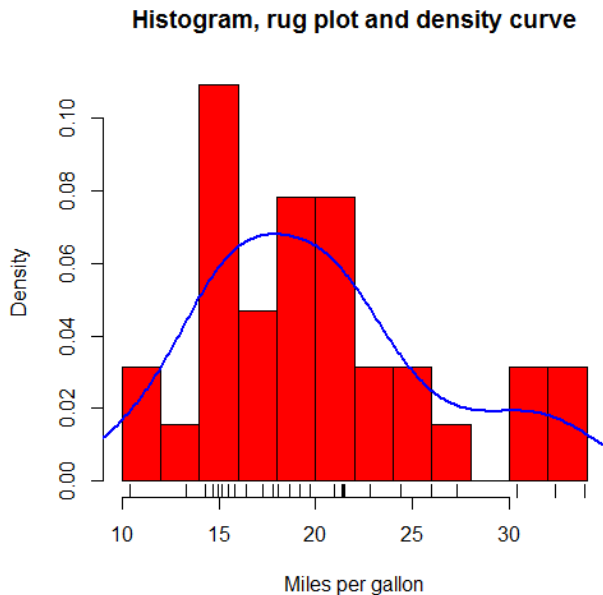
# Density Estimates



# Density Estimates with “Rugs”

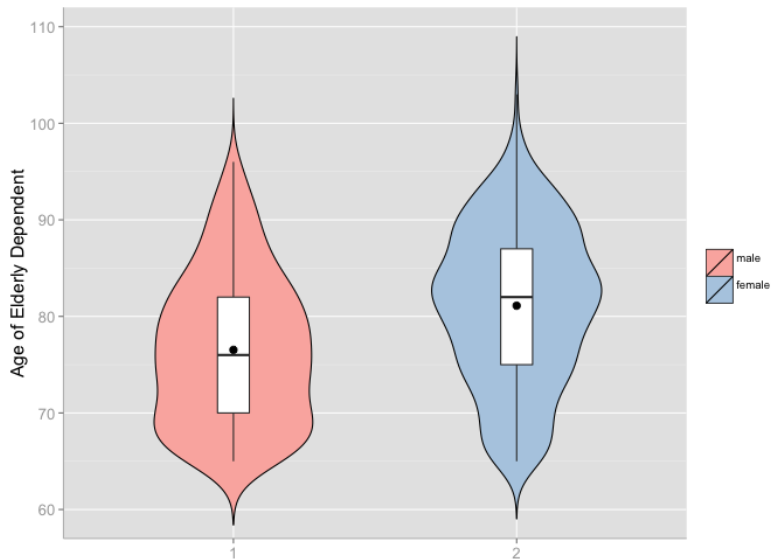


# Histogram with Density Curve and Rug

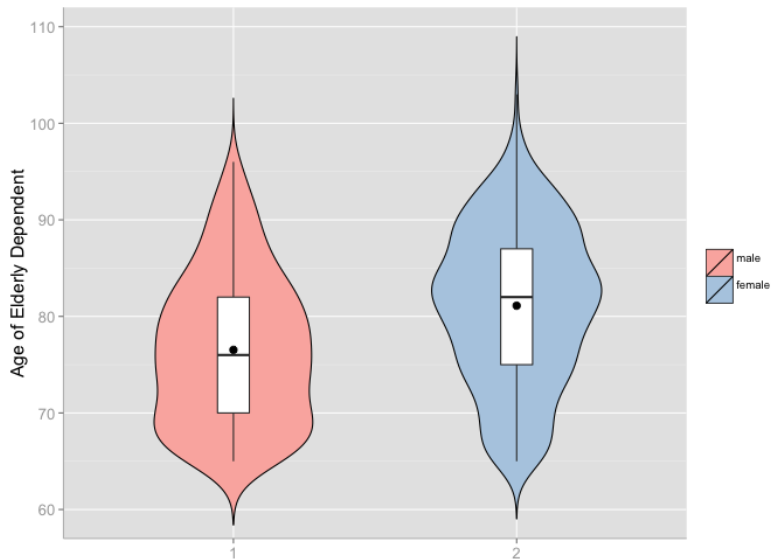




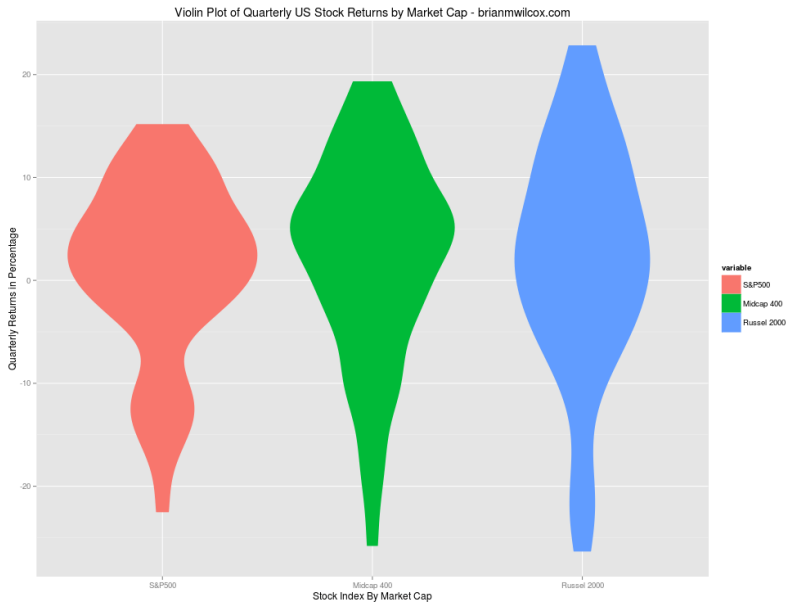
# Violin Plots vs. Boxplots



# 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**