Visualizing Both a Categorical and a Numeric Variable



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Overview



Qualitative and Quantitative Bivariate Analysis

Demo (Base)

Demo (Lattice)

Demo (ggplot2)



Types of Data Analysis

Qualitative Quantitative Number of Variables Univariate Univariate Analysis Analysis Qual. & Quant. Quantitative Qualitative **Bivariate Bivariate** Bivariate Analysis Analysis Analysis

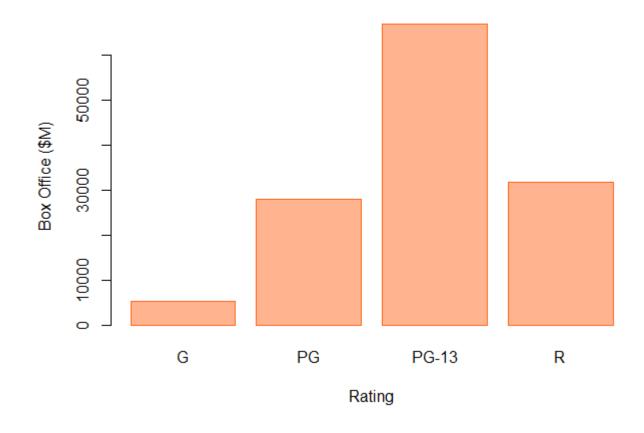
Type of Variable(s)



Qualitative and Quantitative Bivariate Analysis

Aggregate
Grouped
Comparison

Total Box Office Revenue by Rating

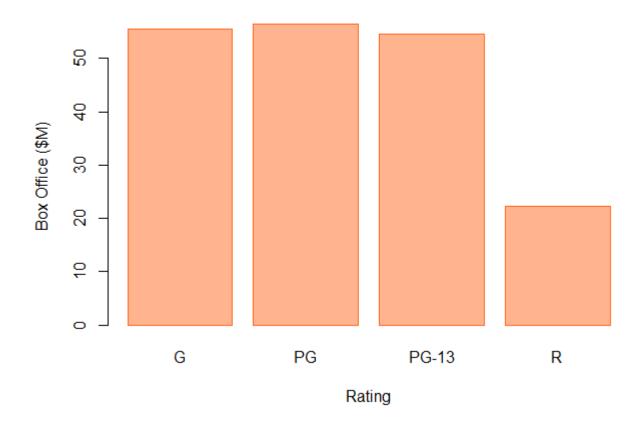




Bivariate Bar Chart

Comparison Single measure

Average Box Office Revenue by Rating

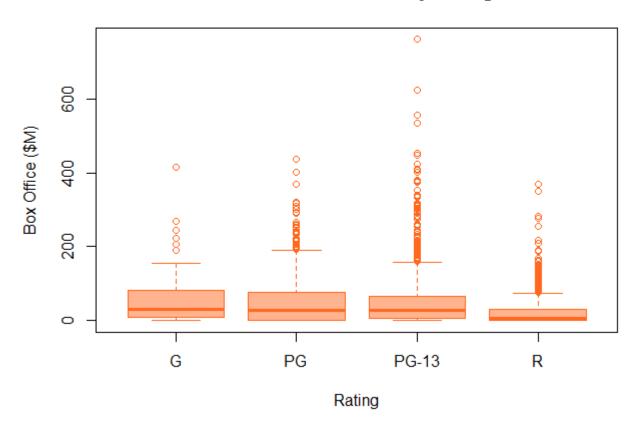




Bivariate Box Plot

Location
Spread
Outliers

Box Office Revenue by Rating

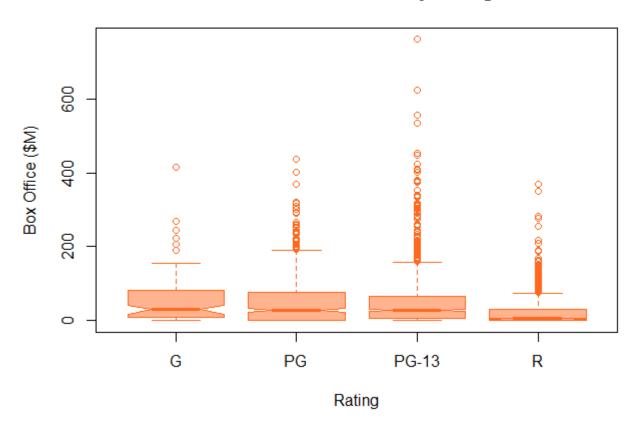




Notched Box Plot

Notches Confidence interval

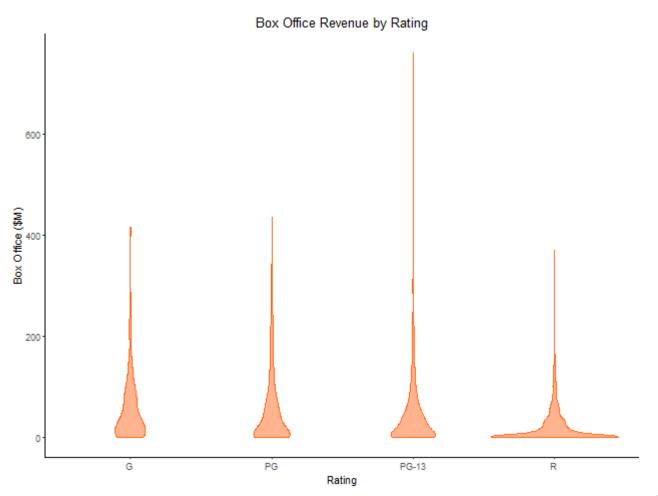
Box Office Revenue by Rating





Bivariate Violin Plot

Density Shape





- 1. How does average boxoffice revenue compare across ratings?
- 2. How similar are the spreads of box-office revenue across ratings?
- 3. How do their shapes compare?



Create a Bivariate Bar Chart



Create a Bivariate Box Plot



Create a Notched Box Plot



No Violin Plot



Create a Bivariate Table



Create a Bivariate Bar Chart



Create a Bivariate Box Plot



Create a Notched Box Plot



Create a Violin Plot



Create a Bivariate Bar Chart



Create a Bivariate Box Plot



Create a Notched Box Plot



Create a Violin Plot





Summary



Qualitative and Quantitative Bivariate Analysis

Demo (Base)

Demo (Lattice)

Demo (ggplot2)

