

Today: Marginal and Conditional Distributions
2-D Categorical Data
Contingency Tables and Mosaic Plots
Friday: 2-D Categorical

Sam Ventura
36-315

Department of Statistics
Carnegie Mellon University

February 1, 2017

2-D Categorical: Stacked and Side-by-Side Bar Charts

2-D Bar Charts:

What does a 2-D bar chart show?:

Contingency Tables

Contingency Tables Give Us:

Two Categorical Variables:

What Are We Interested In?

Contingency Tables and Marginal/Conditional Distributions

Recall: Independence Rules from Probability

Can input contingency tables into chi-square tests for independence

E.g. `chisq.test(table(var1, var2))`

More on this in Lab 04

Pearson Residuals

Pearson Residuals: Scaled difference between observed/expected

Mosaic Plots

Mosaic Plots: Area plot for two categorical variables

Can color the boxes by their differences from what was expected

Friday: Mosaic Plots in R