PLSC 503 – Spring 2018
Introduction

January 11, 2018

"Multivariate Analysis for Political Research"

- "Regression" course

- Texts: Weisberg (2013) and Kennedy (2003)

- Course materials:
  https://github.com/PrisonRodeo/PLSC503-Spring-2018-git

- Preceptor: Wonjun Song

- Software: R > Stata > others

- Grading: Ten homework assignments (@ 50 points), plus a final project (500 points)

Things We Will And Won't Do

"Regression":

$$Y = f(\mathbf{X})$$

Multivariate regression:

$$\mathbf{Y} = f(\mathbf{X})$$

Measurement (e.g. PCA, factor analysis, etc.):

$$\mathbf{Y} = \mathbf{W}^{\mathrm{T}}\mathbf{X}$$

Classification:

- Cluster Analysis
- Classification and Regression Trees $\rightarrow$ Random Forests.
- Pattern Recognition
- Machine Learning, Support Vector Machines, etc.