Lecture 6 – Linear Regression 2 — Semiparametrics and Visualization

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Linear Regression: Why so Popular

Linear regression is incredibly popular as a tool. Why? Many reasons:

- Fast (easy analytic solution and matrix inversion has gotten better)

- Efficient (under some settings, OLS is BLUE)

  My view: linear regressions is

1. an intuitive summary of data relationships

2. A good default – many "better" options are only good in some settings, and linear regression is not bad in many

3. Does a good job with many of the things we throw at our models (high dimensional fixed effects, lots of data)

Today: how to stay in the world of linear regression as much as possible, improving our presentation

As a side goal, we will do a discussion on good visualization practice