Gov 99r: Lecture 6

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Outline

- 1 Experiments
- 2 Regression
- 3 Case Selection

Experiments

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What is wrong with this picture?

Smokers and non-smokers different



- Smokers and non-smokers different.
- Smokers may be different in ways that also affect life expectancy



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$$E[Y_0|D=1] - E[Y_0|D=0]$$

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■ Random assignment

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The goal is to get at causality by identifying a set of observable outcomes (for the treated) that can stand in for the unobserved potential outcomes (for treated units as if they did not receive treatment)



In most cases we cannot perform an experiment to estimate causal effects. This can happen for a number of reasons:

Humans are hard to control



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- Unethical to assign "inconvenient treatments" like war, bad institutions, crisis

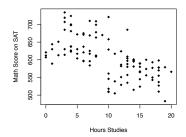
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- Things that happened in the past are interesting to study Here regression can be helpful to estimate "causal" effects.

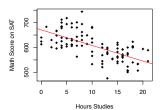
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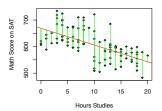
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Satisfying these assumptions fully will get you close to causal language, but for the most part you will be identifying correlation not causation





Different regression models do different things.

■ Logit analysis: binary outcome, log distribution



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In doing causal inference in qualitative studies, case study selection is crucial. Yet, there are many ways to choose cases:

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- Most different

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- Most different
- Typical

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- Diverse

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