

17.871

Review

Social science goals?

- Cumulate knowledge by testing causal claims about socially important questions
- How do we test causal claims?
 - Controlled comparisons
- What's the best way of making controlled comparisons?
 1. Field experiments
 2. Natural experiments
 3. Observational studies
- Rigorous assessments of certainty

Best approaches to data analysis

- Do your analysis graphically (when possible)!
 - Conveys much more information about your data than statistical models
 - Requires fewer assumptions
 - Easy to understand
- Confirm your graphical findings with statistical models
 - Allow you to make more carefully controlled comparisons by holding variables constant
 - Allow you to assess certainty through standard errors and p-values

Regression review

	(1)	(2)	(3)	(4)	(5)
	death	death	death	death	death
bd	-0.12 (0.10)			0.00 (0.11)	
wv		0.35 (0.11)		0.34 (0.13)	0.34 (0.23)
ac			0.38 (0.22)	0.33 (0.22)	0.33 (0.43)
wvXac					-0.01 (0.50)
Constant	0.55 (0.07)	0.23 (0.09)	0.32 (0.11)	0.10 (0.15)	0.10 (0.20)
n	100	100	100	100	100
R ²	0.014	0.094	0.030	0.116	0.116
rmse	0.501	0.481	0.497	0.480	0.480



SER

Standard errors in parentheses

Regression review

- Focus on substantive effect
 - E.g., what's the benefit of the policy? Does the death penalty discriminate?
 - Focus on what actors would want to know in their decision making
 - Do your best to ignore difficult-to-interpret statistics such as R^2 (variance explained)
 - If you're trying to avoid the death penalty, the coefficient for wv is much more relevant than R^2

Creating regression tables

```
reg death bd
  outreg2 using table.txt, se bdec(2,2,2,2) noaster e(rmse) replace
```

```
reg death wv
  outreg2 using table.txt, se bdec(2,2,2,2) noaster e(rmse) append
```

```
reg death ac
  outreg2 using table.txt, se bdec(2,2,2,2) noaster e(rmse) append
```

```
reg death bd wv ac
  outreg2 using table.txt, se bdec(2,2,2,2) noaster e(rmse) append
```

```
g wvXac= ac*wv
```

```
reg death wv ac wvXac
  outreg2 using table.txt, se bdec(2,2,2,2) noaster e(rmse) append
```

Then convert the text file (table.txt) to a nicely formatted table. (In Word, use Convert and Table menu. Paste into PowerPoint as image.)

For your final presentations

- Answer these questions
 1. What's the most threatening alternative explanation? (What are you most afraid of?)
 2. How sure are you about your findings?
 - Consider more than just your p-value
 3. If you had more time or money or both, what research design would give you a better controlled comparison?
- Keep presentations to 10 minutes
- Practice, practice, practice