Closing remarks

• No regression is better than its underlying conceptual model.

• A key question to ask yourself is whether or not the variation in the independent variable is truly independent and likely causal of the variation in the dependent variable.

• Pay attention to the research design as you collect and analyze data. Regression analysis can help you with the comparisons but cannot create comparison groups or pre-tests where none exist.

• Interpret your regression results explicitly for your reader. Explain whether results are economically or socially important, not just statistically significant. Combine tables, text, and graphics to make your point.

• Quantitative methods are a powerful tool for policy analysts and public managers.
Research Design

<table>
<thead>
<tr>
<th>Randomization</th>
<th>Pretest</th>
<th>Treatment</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>R</td>
<td>$\tilde{Y}_{1,\text{before}}$</td>
<td>T</td>
</tr>
<tr>
<td>Group 2</td>
<td>R</td>
<td>$\tilde{Y}_{2,\text{before}}$</td>
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</tr>
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Course Review

- The Model
  - Causal model about the world
    - Useful for public decisionmakers
      - Prediction, critique, and intervention
      - Program evaluation, discrimination
  - Determinacy and randomness
  - Criticisms of causal models
- Estimation of the Model
- Sampling
- Inference about the Estimates