Bavarian Graduate Program in Economics (BGPE)

FIELD EXPERIMENTS IN DEVELOPMENT ECONOMICS

JULY 23-27

Instructor:

Alessandro Tarozzi

(Universitat Pompeu Fabra and Barcelona GSE)

The purpose of this one-week course is to review the key methodological issues and econometric techniques that are essential to conduct and interpret the results of randomized controlled trials (RCTs), with a special emphasis on recent work in Development Economics. Most of the econometric issues that are relevant for RCTs are also more broadly relevant for applied work with cross section and panel data, and so we will also discuss such extensions.

The requirements for this course are, first, a solid knowledge of basic cross-section and panel data econometrics (at a minimum, at the level of Stock & Watson, Introduction to Econometrics) and, second, a good working knowledge of the statistical software Stata.

Classes will be largely based on lecture notes, but here are some useful general references:


Class 1 - Estimation of Treatment Effects & Randomization of Treatment


Class 2 - The basic econometric framework of RCTs, Differences-in-Differences (and Triple Differences)


Classes 3 and 4 - Level of randomization, standard errors and power calculations


Class 5 - Estimation and inference with multiple outcomes


Class 6 – Externalities


Class 7 and 8 - Heterogeneity in treatment effects, imperfect compliance and the Local Average Treatment Effect (LATE)


**Class 9 – RCTs, drawbacks, extensions.**


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<th>Time</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
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<tr>
<td>9:00 - 10:30</td>
<td>Class 1 - Estimation of Treatment Effects and Randomization of Treatment</td>
<td>Class 3 - Level of randomization and standard errors</td>
<td>Class 5 - Estimation and inference with multiple outcomes</td>
<td>Class 7 - Heterogeneity in treatment effects, imperfect compliance and the Local Average Treatment Effect (LATE)</td>
<td>Class 9 - RCTs, Drawbacks, Extensions</td>
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<td>10:30 - 11:00</td>
<td>Coffee/Tea Break</td>
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<td>11:00 - 12:30</td>
<td>Class 2 - The basic econometric framework of RCTs, Differences-in-Differences</td>
<td>Class 4 - RCT Design: Standard errors and power calculations</td>
<td>Class 6 - Externalities</td>
<td>Class 8: LATE (continued)</td>
<td>Class 9 - RCTs, Drawbacks, Extensions (continued)</td>
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<td>12:30 - 14:00</td>
<td>Lunch</td>
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<td>14:00 - 15:30</td>
<td>Problem set - Causal inference</td>
<td>Problem set- Power calculations</td>
<td>Problem set - Estimation with multiple outcomes</td>
<td>Problem set - Heterogeneity of treatment</td>
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<td>15:30 - 16:00</td>
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<td>16:00 - 17:30</td>
<td>Discussion of problem sets</td>
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<td>19:00</td>
<td>Dinner</td>
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