



## Data Visualization and Spillovers in Experiments

Instructor: Alex Coppock [alex.coppock@yale.edu](mailto:alex.coppock@yale.edu)

4 June 2020, 15:00 – 17:00

5 June 2020, 15:00 – 16:00

Organised by Miriam Golden (SPS) together with Annabelle Wittels and Eleanor Florence Woodhouse (Max Weber Fellows)

Contact: [Monika.Rzemieniecka@eui.eu](mailto:Monika.Rzemieniecka@eui.eu)

Register [online](#)

This two-hour lecture will cover two topics related to the design and analysis of randomized experiments. The first concerns the visualization of data from experiments with an emphasis on designing graphs that reveal experimental design. The second concerns design and analysis approaches for analyzing experiments that encounter inference between units, commonly referred to as “spillover.” The main prerequisite is a familiarity with the potential outcomes model of causality. Knowledge of experimental design up through chapter 3 of Gerber and Green (2012) is totally sufficient. Students will be asked to complete a problem set the night of June 4th that we can discuss together on the 5th.

### Readings

- [Coppock \(2020\)](#)
- [Weissgerber et al. \(2015\)](#)
- [Gerber and Green \(2012, Chapter 8\)](#)
- [Paluck et al. \(2016\)](#) and subsequent correction

### References

Coppock, Alexander. 2020. Visualize As You Randomize: Design-based Statistical Graphs for Randomized Experiments. In *Advances in Experimental Political Science*, ed. James N. Druckman and Donald P. Green. New York: Cambridge University Press.

Gerber, Alan S. and Donald P. Green. 2012. *Field Experiments: Design, Analysis, and Interpretation*. New York: W.W. Norton.

Paluck, Elizabeth Levy, Hana Shepherd and Peter M. Aronow. 2016. “Changing climates of conflict: A social network experiment in 56 schools.” *Proceedings of the National Academy of Sciences* 113(3):566–571.

URL: <https://www.pnas.org/content/113/3/566>

Weissgerber, Tracey L., Natasa M. Milic, Stacey J. Winham and Vesna D. Garovic. 2015. “Beyond Bar and Line Graphs: Time for a New Data Presentation Paradigm.” *PLOS Biology* 13(4):1–10.

URL: <https://doi.org/10.1371/journal.pbio.1002128>