

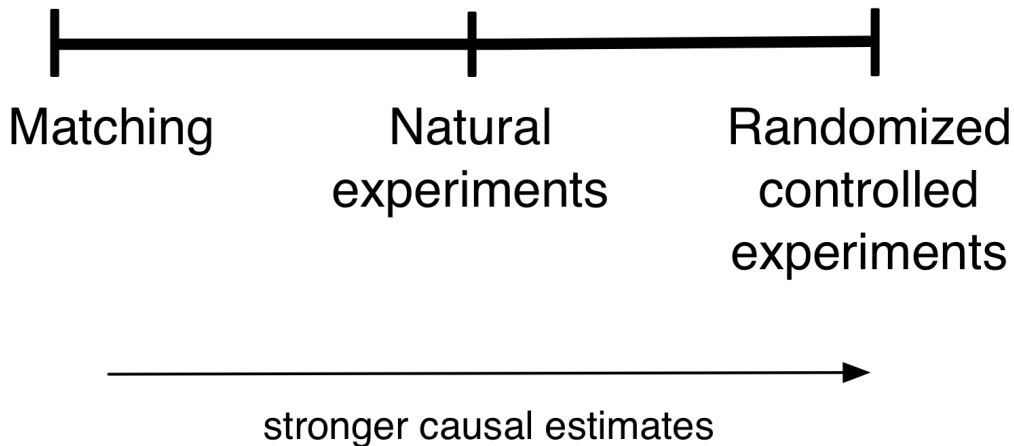
Approximating experiments (02-06)

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Natural experiments and matching are helped by big data environment



https://commons.wikimedia.org/wiki/File:1969_draft_lottery_photo.jpg

Always-on data source + random shock = natural experiment

Peers at Work

By ALEXANDRE MAS AND ENRICO MORETTI*

Mas and Morietti (2009) "Peers at works", *American Economic Review*,
<http://dx.doi.org/10.1257/aer.99.1.112>

Like Farber (2015)

- ▶ this paper brings a lot of ideas to the data
- ▶ interesting either way (free riding or positive spillovers)
- ▶ both not online (digital devices in the physical world)
- ▶ uses size for heterogeneity and mechanisms

Substantive focus	Source of natural experiment	Always-on data source	Citation
Peer effects on productivity	scheduling process	checkout data	Mas and Moretti (2009)
Friendship formation	hurricanes	Facebook	Phan and Airoldi (2015)
Spread of emotions	rain	Facebook	Coviello et al. (2014)
Peer to peer economic transfers	earthquake	mobile money data	Blumenstock, Fafchamps, and Eagle (2011)
Personal consumption behavior	2013 US government shutdown	personal finance data	Baker and Yannelis (2015)
Economic impact of recommender systems	various	browsing data at Amazon	Sharma, Hofman, and Watts (2015)
Effect of stress on unborn babies	2006 Israel–Hezbollah war	Birth records	Torche and Shwed (2015)
Reading behavior on Wikipedia	Snowden revelations	Wikipedia logs	Penney (2016)

Matching