



The 2020 Annual Economics Meetings: Tacos, GDPR, Machine Learning, and New Ways to Randomize

This year's annual Allied Social Sciences Association (ASSA) meetings were held in sunny San Diego from January 3-5, 2020. Over 13,000 economists from around the world convened for job market interviews and to present research to members of the American Economics Association and American Finance Association, among others.

With so many economists in one place, even offsite taquerias were filled with conversations of new research methods and econometric tools. Over my tacos and guacamole, I could hear economists, young and old, discussing the latest papers, datasets, and new machine learning tools.

I spent most of my time this year conducting job market interviews with only a limited time to listen to authors present their papers. Still, I was able to catch one important session on [tech economics](#).

GDPR and Venture Capital

Professor **Ginger Jin**, in her paper co-authored with **Jian Jia** and **Liad Wagman**, "[GDPR and the Localness of Venture Investment](#)," measured the effects of GDPR on venture capital investment.

The authors collected data from over 100,000 worldwide venture deals from 2014 to June 2019 from Crunchbase and VentureXpert. These deals had a median fundraise amount of \$2 million in the U.S., \$1 million in the E.U., and an average of 2-3 investors each.

They found that investors changed their behavior in response to GDPR. Regression results showed that foreign investors pulled back on deal-making, particularly for data-intensive firms and first-round investments. Follow-on investment also decreased after the rollout of GDPR.

Using Machine Learning to Improve Price Indices

Patrick Bajari of Amazon presented a paper co-authored with **Victor Chernozhukov** entitled, "[New Goods, Productivity and the Measurement of Inflation: Using Machine Learning to Improve Quality Adjustments](#)."

This research paper explained how machine learning methods can improve price indices for consumer products, particularly by generating better quality-adjusted price indices.

Some items, like clothing, make up a non-trivial share of consumer price indices (CPI). Yet, any given piece of clothing may be available for less than a year. This high turnover can introduce bias into price indices. The solution is to impute missing data based on product features. Typically, these features are selected by hand and, therefore, are costly to the Department of Commerce and other researchers to generate. New machine learning models can better automate this process through scalable and accurate prediction methods for better estimates of CPI.

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Can Randomization Get Even More Exciting? You Betcha!

Professor **Guido Imbens** of Stanford presented a paper co-authored with **Patrick Bajari** entitled, “[Multiple Randomization Designs for Inference](#).” Their paper advances the literature on experimental methods to interpret vast amounts of new data.

In conventional A/B tests, observations from a well-defined population are randomly assigned to treatment groups. But new forms of multiple randomization design can assign treatment groups by pairs and groups. Randomization along multiple dimensions allows for more inference from the increasing size of data generated today. Researchers do not have to make a decision on which single population to randomize, but instead, can randomize over multiple populations. Professor Imbens used an example of movie-viewer pairs to step through experimental methods to determine effects of changes in movies and viewer combinations.

Wrapping Up

Finally, one big change in 2020 is that temporary office spaces were set up in the main conference hotel for employers conducting PhD job market interviews. In the past, job interviews were held in hotel rooms, which was, at best, uncomfortable for many. This change is a concrete and long-overdue improvement for the economics profession.

Next year, the meetings take place in everyone’s favorite winter destination: Chicago! I look forward to hearing the latest economics updates over pizza and hot dogs.

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