Yisroel Cahn | Research Statement

19 West 4th Street, New York, NY 10012
☎ (443) 204-6202 • ✉ yisroel.cahn@nyu.edu
izzy-cahn.github.io/website/ • Linkedin • Github

Research Statement

My research interests are in labor economics and econometrics. In particular, I am interested in policy evaluation. Policy evaluation is tasked with both defining appropriate objects of interest and producing compelling results. My research focuses on tackling aspects of both concerns.

Going beyond the traditional single outcome framework, I consider the case of multiple jointly determined outcomes by examining the effects of minimum wage policy on both hourly wages and hours worked. While changes to the minimum wage might increase some individuals' hourly wage, they might also decrease those individuals' hours worked. I propose a method to estimate the counterfactual joint distribution of outcomes using distribution regressions and an empirical copula.

Since hours worked can only be observed for those who work, I also implemented a Heckman-type selection model to estimate the effect of minimum wage increases on the hours worked of minimum wage workers using U.S. data (Current Population Survey data). Interestingly, I found that the effect on hours worked differed by industry. On average, accommodation and food service minimum wage workers saw their hours fall, while the hours of minimum wage workers in most other industries rose. Accommodation and food services could be competitive in local markets. If the normative assumptions underpinning minimum wage policy are accepted, any policy recommendation should be set commensurate with industry competitiveness.

The methods discussed above pertain to evaluating a particular policy. However, one might be interested in identifying deep structural parameters of a model to determine the mechanisms causing the difference in observed outcome and counterfactual outcome. This is important for forecasting the effects of a new policy and establishing the results as compelling. While such policy evaluation methods might determine that a two-dollar minimum wage increase does not affect employment, it does not help to inform the policy maker what the optimal minimum wage might be. Furthermore, the results from such a policy evaluation might be circumstantial and its external validity questionable. Accordingly, there have been two competing camps of policy evaluation economists — structural economists who focus on estimating deep structural parameters but make nonobvious assumptions, and reduced-form economists who make use of compelling exogenous variation but suffer from the shortcoming of not estimating the deep structural parameters stated above. Recently, these competing methodologies have been used in a complementary fashion (Heckman, 2010; Lewbel, 2019; Todd and Wolpin, 2020) in which reduced-form methods validate structural models.

I am particularly excited by this line of research. I proposed a method for dividing the prediction error of a structural model into: a) error due to the overall model being misspecified; and b) error due to components of the model being misspecified. In an experimental setting, these errors can be identified. The fundamental problem of causal inference is that the counterfactual is never observed. However, under random assignment, observing the control group might be as good as observing the counterfactual state.

References

Heckman, J. J. (2010). Building bridges between structural and program evaluation approaches to evaluating policy. *Journal of Economic Literature*, *48*(2), 356–98. https://doi.org/10.1257/jel.48.2.356

Lewbel, A. (2019). The identification zoo: Meanings of identification in econometrics. *Journal of Economic Literature*, *57*(4), 835–903. https://doi.org/10.1257/jel.20181361

Todd, P. E., & Wolpin, K. I. (2020). *The best of both worlds: Combining rcts with structural modeling* (tech. rep.). University of Pennsylvania.