

# Felipe Diaz Klaassen

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## EDUCATION

### University of Illinois Urbana-Champaign

August 2015 – May 2023

#### Ph.D. in Economics

Urbana, IL

STEM, Quantitative Economics and Econometrics after 2016

Research: “Essays on the Design of Criminal Justice Institutions,” Used quasi-random assignment of judges, along with Jackknife IV, LIML, and LASSO IV, to address first-stage overidentification and estimate causal effects of alternative criminal punishments. Characterized treatment effect heterogeneity using generic machine learning inference. Extended traditional model of bargaining under imperfect information to study the trade-offs of trial length.

Fields: Labor Economics, Applied Microeconomics, Political Economy

### University of Chile

August 2013 – May 2015

#### M.S. in Economics

Santiago, Chile

Master’s Thesis: “Costly Information Acquisition and Voluntary Voting”

Major GPA: 6.5/7.0 (equiv 4.0/4.0), Maximum Distinction

B.S. in Industrial Engineering | Major GPA: 6.1/7.0 (equiv 4.0/4.0), Maximum Distinction

## PROFESSIONAL EXPERIENCE

### Banco de Crédito e Inversiones (BCI)

January 2015 – July 2015

Process Engineer, Risk Management Team

Santiago, Chile

- Development of trading desks’ manuals for Volcker Rule compliance.

### IM Trust

August 2012 – July 2013

Analyst, Strategy Department

Santiago, Chile

- Asset allocation with multi-factor models and Black-Litterman approach using Bloomberg API, Matlab and VBA.
- Assess portfolio risk exposure with VaR using Matlab.

## ACADEMIC EXPERIENCE

### University of Illinois Urbana-Champaign

Teaching Assistant of “Big Data Analytics,” Gies College of Business

January 2020 – present

- Topics covered: data visualization, machine learning, regression analysis, randomized trials, LASSO, Trees, Random Forests, Boosting, Neural Networks, A/B testing, R programming within AWS.

Research Assistant, Department of Economics

May 2016 – present

Urbana, IL

- Heterogeneous treatment effects estimation using various Metalearners (S-, T-, X-, and R-Learners) as well as RATE metrics to compare different treatment allocation schemes.
- Solve dynamic model of the production of health and mortality using Nelder-Mead with soft constraints and simulated annealing, in Matlab and R.
- Built and geocoded panel dataset of FOIA’d firearms licenses and gun-related accidents using Stata and Python.
- Causal inference with few clusters (wild cluster bootstrap/score bootstrap) using Stata.

## SKILLS

- R (Advanced), Stata (Advanced), Python, Matlab, Java, SQL, TensorFlow, L<sup>A</sup>T<sub>E</sub>X
- Econometrics, Causal Inference, Machine Learning, Web Scraping, Data Visualization
- RCTs, Difference-in-Differences, Synthetic Control, Regression Discontinuity, LASSO, Double ML, Metalearners

## RESEARCH

- [Crime and \(Monetary\) Punishment](#)
- [Quorum Rules in a Multiple-Issue Referendum](#) (with Ricardo Piqué)
- Value-Added in the Criminal Justice System (with Rebecca Thornton)  
Empirical Bayes estimation of value added by defense attorneys.
- Police Violence and Crime (with Jennifer Doleac, Anna Kyriazis, and Kelsey Pukelis)  
Python script chain linking Google trends to make them comparable across time and space.

## SCHOLARSHIPS AND AWARDS

- Graduate Fellowship, Department of Economics, UIUC
- Summer Research Award, Department of Economics, UIUC
- List of Teachers Ranked as Excellent, UIUC

## LANGUAGES

- English (fluent)
- Catalan (intermediate)
- Spanish (native)

## REFERENCES

Professor Rebecca Thornton  
[rebeccat@illinois.edu](mailto:rebeccat@illinois.edu)

Professor Alexander Bartik  
[abartik@illinois.edu](mailto:abartik@illinois.edu)

Professor Benjamin Marx  
[benmarx@illinois.edu](mailto:benmarx@illinois.edu)