

# Curriculum Vitae

Esteban Degetau

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## Profile

**Economist | Causal Inference & High-Frequency Forecasting | 2+ yrs Government Research | PhD-bound (2027)**

Leverage 100 m-row administrative datasets to generate policy-relevant evidence and automate macro & micro forecasts for Mexico's Social Security Institute. Passionate about open, reproducible research that improves lives across Latin America and the Caribbean.

## Research Interests

Labor economics; social protection; applied econometrics; causal inference; public finance; data science for policy

## Education

### Instituto Tecnológico Autónomo de México

*Master in Applied Economics*, degree approved; diploma issuance expected **October 2025**

### Massachusetts Institute of Technology

*MicroMasters in Data, Economics, and Development Policy*, 2022

### Instituto Tecnológico Autónomo de México

*B.A. in Economics* — Specialization in Law, 2021

## Public Service — *Instituto Mexicano del Seguro Social (IMSS)*

*Sub-Division Chief, Fiscal Policy* | 2023 – Present

- Spearheaded an **R + targets pipeline** replacing fragmented Excel workflows, reducing run-time by 90% (40 h → 4 h) for national & 40 state-level revenue and employment forecasts.
- **Processed 100 m+ administrative records** each cycle via Spark/SAS, and integrated probabilistic prediction intervals achieving **93 % empirical coverage** while **cutting MAPE by 20 %**.
- Delivered daily automated slide deck tracking end-month revenue/employment and briefed department heads.
- Directed a team of analysts to improve record linkage with national surveys, automate reporting, and embed causal-inference rigor into policy memos.

## Applied Microeconomics Research

### Center for Economic Research (CIE), ITAM | **Research Assistant** | 2022 – 2023

- Supported **Enrique Seira** & **Joyce Sadka** on randomized and quasi-experimental evaluations of labor-court reforms; cleaned complex microdata and built daily reports for field teams.
- Produced and presented interim findings at weekly co-author meetings.

## Working Paper

- “The Labor Market Outcomes of (Quasi) Unemployment Insurance: Evidence from Mexico’s *Retiro Parcial por Desempleo*”
  - Exploits a sharp RDD at the 24-month contributions eligibility threshold.
  - Implements **Generalized Random Forests** to uncover heterogeneous effects across gender, age, income, and COVID-19 exposure.
  - Draft, replication code, and 5-slide summary deck available at: <https://www.estebandegetau.com>.

## Teaching

- **Instructor**, ITAM - *Principles of Microeconomics* (Fall 2025)
- **Instructor**, IMSS — *Statistical Tools in R* (Spring 2025)
  - Designed syllabus; Course materials.
- **Teaching Assistant**, ITAM — *Economic Analysis of Law* (Fall 2022 – Spring 2023)

## Technical Skills

Category	Tools
<b>Econometric Packages</b>	R (tidyverse, fable, grf, fixest), Stata, Dynare
<b>Modeling &amp; Forecasting</b>	State-space, Kalman & nnetar, probabilistic intervals
<b>Big-Data / ETL</b>	Spark, SQL, SAS
<b>Geo &amp; Visualization</b>	QGIS, Power BI, ggplot2
<b>Programming</b>	Python (pandas, statsmodels), Git/GitHub, Quarto

## Publications & Outputs

- RPD working paper & replication files (see link above)
- **Five-slide policy deck** summarizing RPD findings (2025)

## Recognitions

- Honorable Mention, COFECE Undergraduate Essay Contest (2021)

## Professional Development

- Regular attendee, LACEA-LAMES & EconNet seminars
- Currently preparing PhD applications in Economics / Public Policy (entry 2026 or 2027)

## Citizenship & Languages

- **Mexican citizen** (IDB borrowing member).
- **Languages**: Native Spanish; Fluent English (C1).

## References

Available upon request.