

Economist

Qualification Summary

- Experience working across multidisciplinary teams and communicating data insights effectively.
- **Fields:** I/O economist and applied econometrician with expertise in causal inference and structural modeling.
- Extensive experience creating and implementing models to solve problems at scale.
- Proficiency in programming languages like R, Stata, SQL, and Matlab. Experience working with large datasets.
- Passionate about leveling the field for immigrants and first-generation college students.

Education

Ph.D. in Agricultural and Resource Economics. University of California, Davis 2023

Interests: Energy and environmental econ., competition and regulation, policy eval.

M.Sc. in Agricultural and Resource Economics. University of California, Davis 2018

B.Sc. in Economics (Magna Cum Laude). Instituto Tecnológico Autónomo De México (ITAM) 2012

Research Experience

Central Bank of Mexico – Financial System Regulation (DGASF) Sep 2023 - currently
Senior Research Economist

- I coordinate and execute academic research regarding consumer and firm behavior in Mexico's credit markets.

UC San Diego - Global School of Policy and Strategy Sep 2022 – Jul 2023
Visiting Scholar

- I was the research economist of a multi-disciplinary group of international researchers focusing on US-Mexico policy issues. My main area of work was policy evaluation and consumer behavior in Mexico and California's energy markets.

Amazon - Data, Science, and Analytics: Last Mile team Jun 2022 – Sep 2022
Structural Economist - Summer Internship

- Coordinated a research project to better inform access point locations (lockers) from inception to implementation.
- Developed a model to analyze consumers' willingness to travel using structural modeling and causal inference.
- Model is scalable and quick to implement in any city worldwide. Worked with large datasets.
- Worked across a multidisciplinary team of engineers, economists, and business partners.

UC Davis – Agr. and Resource Economics Department Sep 2016 – Sep 2023
Research Assistant

- Worked on a wide range of projects. The common thread that links these projects is the implementation of structural models, modeling consumer behavior, and using causal inference tools to extract insights from the data.

Professional Experience

Central Bank of Mexico – Central Bank Operations Feb 2015 – Sep 2016
Head of the FX and Commodities Trading Desk

- Oversaw the organization's USD 20B investment portfolio, ensuring the strategic investment of resources.
- Developed systematic trading strategies grounded in macroeconomic theory and risk-neutral pricing that consistently outperformed our external asset managers (JPM, GS, BLK, STT, etc.)
- Led a cross-functional team by introducing foreign exchange options as a new investment vehicle.
- Generated \$6B profit for the organization by executing Mexico's oil hedging program, the world's largest public oil hedging program, through timely and effective decision-making and risk management strategies.

Central Bank of Mexico – Central Bank Operations Feb 2012 – Sep 2016
Economics Analyst – Crude oil, natural gas, and fuels.

- Generated market-intelligence reports for the investment committee and the Board of Governors.
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Teaching Experience

Lead lecturer - B.Sc. course in Options and Futures market.

2018: Summer 1; 2020: Summer 1 and Summer 2

- Taught an upper-division course on derivative markets and risk-neutral valuation.
- Built the syllabus from scratch, balancing the practitioner's needs and academic rigor.

Teaching assistant in graduate-level courses:

Worked with Distinguished Prof. Richard Sexton, Prof. James Chalfant, and Assist. Prof. Bulat Gafarov.

M.Sc. course in Ind. Organization: monopolistic competition, collusion, and price discrimination **Jan 2021 – Mar 2021**

M.Sc. course in Linear Econometrics: OLS, bias, consistency, LLN and CLT, simulations. **Sep 2020 – Dec 2020**

M.Sc. course in Non-linear Econometrics: Discrete choice models, censored data, time series **Jan 2020 – Mar 2020**

Research in Progress

Working papers

- Colina, A. R. et al (2024, Conditionally accepted in Energy Economics). California Gasoline Demand Elasticity Estimated Using Refinery Outages.
- Colina A.R. et al (2024, Conditionally accepted in Annals of the New York Academy of Sciences). Cost-effectiveness of fortified bouillon in addressing Burkina Faso children's vitamin A inadequacy: An economic optimization model.
- Colina, A. R. (2023, April). Consumer welfare and price controls in Mexico's gasoline markets.

Work in progress

- Colina, A.R., and JL Negrín. The dynamic effects of access to credit on labor outcomes in micro, small, and medium enterprises in Mexico.
- Colina, A. R., and R. Sexton. Location, price competition, and the choice to differentiate in retail gasoline markets.
- Colina, A. R., and B. Gafarov. Taxes and prices. Separating consumer behavior from short and long-term price shocks in California's gasoline market.

Awards & Honors

- Best paper by a young economist, finalist – US Association of Energy Economics **Nov 2024**
- Center for U.S. - Mexican Studies. Dissertation year fellowship **Sep 2022 – Jul 2023**
- ExxonMobil - Corporate Fellowship. **Oct 2020 – Dec 2020**
- Henry A. Jastro Research Award **Jul 2020 – Sep 2020**
- Chevron Energy Fellowship **Jul 2019 – Sep 2019**
- Agr. and Resource Economics Dept at UC Davis Fellowship **Apr 2017 – Jun 2017**
- Consejo Nacional de Ciencia y Tecnología (CONACYT) **Sep 2016 - Sep 2021**
- Baillères Scholarship, ITAM **Aug 2007 - Aug 2011**

Academic conferences

- Latin America and the Caribbean Economic Association (LACEA) **2023, 2024**
- US Association of Energy Economics (USAEE) **2024**
- Agricultural and Applied Economics Association Annual Meeting (AAEA) **2019**
- UC Berkeley, UC Davis, and ITESM Bi-national Lab Winter meeting. **2018**

Activities

- Outreach talks on financial literacy
- Amateur barista who loves swimming and salsa (the food and the dancing).
- Certified Unofficially educator
- Volunteer and donor to NorthCal Resist.

Languages

- Spanish (native)
 - English (proficient)
 - French (beginner)
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