
Armando Rangel Colina

arangel@ucdavis.edu – website: <http://arangelcolina.com/>
• Mexican citizen with U.S. work authorization, willing to relocate

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 to measure the impact of policies.
- 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 2016-Expected 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

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

- Measured the consumer welfare impact of price liberalization in Mexico's gasoline market. I created an applied consumer choice model of spatially differentiated goods. The effect is 7% of the market's revenue affecting low-income households proportionally more. Worked with large datasets.
- Estimated consumers' price elasticity to gasoline demand in California to be -0.33 and that it has been increasing over time.

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 continues to be implemented in Seattle, Tokyo, and cities in Calif. like Sacramento and San Francisco.
 - 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 – Present
Research Assistant

Worked on projects ranging from estimating optimal interventions in food fortification programs across African countries to evaluating the effect of financial index fund availability on farmers' premiums to hedge their crops. The essential thread that links these projects is the implementation of structural models, modeling consumer behavior, and the use of causal inference tools to extract insights from the data.

Professional Experience

Central Bank of Mexico 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 FX options as a new investment vehicle.
 - Generated \$6B profit for the organization by executing Mexico's oil hedging program, the largest public oil hedging program in the world, through timely and effective decision-making and risk management strategies.
-

I compiled market intelligence reports for eight significant European economies and presented investment recommendations to the Bank's Board of Investment. Additionally, I formulated policy recommendations for the Board of Governors of the Central Bank.

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, etc. **Jan 2020 – Mar 2020**

Research in Progress

Working papers

- Colina, A. R. (2023, April). Consumer welfare and price controls in gasoline markets.
- Colina, A. R. (2023, May). Accidents may happen: estimating the price elasticity of demand for gasoline in California.

Work in progress

- Colina, A. R. and R. Sexton. Location, price competition, and the choice to differentiate.
- Colina, A. R. and B. Gafarov. Taxes and prices. Separating consumer behavior from short and long-term price shocks.
- Colina, A. R. Industry consolidation and (unexpected) output curtailment in California's gasoline markets.
- Colina, A. R. Environmental impacts and price liberalization in Mexico's gasoline market.

Awards & honors

- Center for U.S. - Mexican Studies. Dissertation year fellowship **Sep 2022 - Currently**
- 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 - Jan 2011**

Activities

- Member of First-gen mentoring program.
- Certified Unofficially educator
- Amateur barista who loves swimming and salsa (both the food and the dancing).
- Volunteer and donor to NorthCal Resist.

Languages

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