



Luis Sarmiento

Economist

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SUMMARY

I am an economist focusing on causal inference and energy modeling. As an experienced professional, I have developed substantial expertise in applied econometrics, integrated assessment models, and agent-based modeling. My research focuses on critical issues such as the energy transition, climate change, digitalization, environmental justice, and the study of policies to decrease environmental externalities in urban areas.

PROFESSIONAL EXPERIENCE

Postdoctoral Researcher MTEC Department, ETH Zurich, Zurich CH	Jan 2026 – Present
Research Economist Directorate of Economic Research, Bank of Mexico, Merida MX	Sep 2024 – Jan 2026
Environmental Economist Euro-Mediterranean Center on Climate Change, Milan IT	Sep 2022 – Sep 2024
Postdoctoral Researcher Euro-Mediterranean Center on Climate Change, Milan IT	Sep 2020 – Sep 2022
Research Associate German Institute of Economic Research, Berlin DE	Apr 2017 – Sep 2020
Research Associate Hertie School of Governance, Berlin DE	Nov 2019 – Aug 2020
Business Executive Banco del Bajío SA, Leon MX	Sep 2012 – Sep 2014

EDUCATION

Doctor in Economics (<i>summa cum laude</i>) Berlin Institute of Technology (TU Berlin), Berlin Germany	2017–2020
M.S. Economics and Management Humboldt University of Berlin, Berlin Germany	2014–2016
B.S. International Business University of La Salle Bajío, Leon Mexico	2007–2012

PUBLICATIONS

The air quality effects of Uber
Sarmiento L. and Kim Y.
Journal of Urban Economics (Conditional Acceptance)

◊

Occupation and temperature-related mortality in Mexico

Bressler R.D., Papp A., Sarmiento L., Shrader J., and Wilson A.

Journal of Human Resources (Advance online publication)

◊

The Air Quality and Well-Being Effects of Low Emission Zones

Sarmiento L., Wagner N., and Zaklan A.

Journal of Public Economics, 277, 105014, 2023

◊

Policy implications of net-zero emissions: A multi-model analysis of US energy system impacts

Bistline J. et al.

Energy and Climate Change, 100118, 2025

◊

Health and air pollutant impacts of Net Zero CO₂ by 2050 from the Energy Modeling Forum 37

Loughlin D., Sarmiento L., Emmerling J., et al.

Energy and Climate Change, 100165, 2024

◊

Carbon Management Technology Pathways for Reaching a US Economy-Wide Net-Zero Emissions Goal

Binsted M. et al.

Energy and Climate Change, 100154, 2024

◊

Comparing Net Zero pathways across the Atlantic: Inter-comparison between EMF-37 and ECEMF

Sarmiento L. et al.

Energy and Climate Change, 100144, 2024

◊

Air Pollution and Court Decisions: Evidence from Ten Million Penal Cases in India

Sarmiento L. and Nowakowski A.

Environmental and Resource Economics, 86, 605-644, 2023

◊

The Nonlinear Effects of Pollution on Crime: Evidence from Mexico City and New York

Sarmiento L.

Environmental Research - Health, 1(2), 021001, 2023

◊

Equity Implications of Net-Zero Emissions: Energy Expenditures across Income Classes

Bistline J. et al.

Energy and Climate Change, 100118, 2023

◊

Policy Reversals in Transitional Markets: Changing Marginal Cost to Physical Order Dispatch

Gutierrez-Meave R., Rosellon J., and Sarmiento L.

Economics of Energy and Environmental Policy, 13(1), 2023

◊

Air Pollution and the Productivity of High-Skill Labor: Evidence from Court Hearings

Sarmiento L.

Scandinavian Journal of Economics, 124, 301-332, 2021

◇

Mexico and US Power Systems Under Variations in Natural Gas Prices

Sarmiento L. et al.

Energy Policy, 151, 113378, 2021

◇

The Role of Energy Storage in the Uptake of Renewable Energy: A Model Comparison Approach

Giarola S. et al.

Energy Policy, 151, 112159, 2021

◇

Analysing Scenarios for Renewable Energy Integration in the Mexican Energy System

Sarmiento L. et al.

Energies, 12(17), 3270, 2020

◇

The Effects of the 2013 Floods on Germany's Road Freight Traffic

Gabela J.G.F. and Sarmiento L.

Transportation Research Part D, 1022774, 2020

UNDER REVIEW

Emergency room visits and temperature: Evidence from Mexico

Colelli F.P., Pavanello F., and Sarmiento L.

Journal of Economic Behavior and Organization (Revise and Resubmit)

◇

Income shocks, adaptation, and temperature-related mortality: Evidence from Mexico

Sarmiento L., Gilli M., and Shayegh S.

Journal of the Association of Environmental and Resource Economists (Reject and Resubmit)

◇

Recycling in a globalised economy

Joeltrau E. and Sarmiento L.

Empirical Economics (Revise and Resubmit)

WORKING PAPERS

Demand for emergency room services and air pollution in a developing context

Basaglia P. and Sarmiento L.

◇

The Unintended Consequences of Low Emission Zones: Evidence from Madrid Central

Santoja A., Sarmiento L., and Wagner N.

◇

The transnational effect of high temperatures on remittances

Sarmiento L., Osuna D., and Ares de Parga G.

◇

Inflation Smoothing Through Natural Disaster Relief Funds

Sarmiento L., McLiberty I., Arellano J., Llamosas I., and Solorzano D.

The Impact of Temperature Extremes on Local Power Distribution

Colelli F.P., Pavanello F., and Sarmiento L.

The air quality, health, and labor supply effects of agricultural fires

Sarmiento L. and Arellano J.

The effect of air purifiers in schools

Bonan J., Granella F., Renna S., and Sarmiento L.

The global economic burden of air pollution

Basaglia P., Drupp M.A., Sager L., Sarmiento L., and Schaumann F.

Racial Inequalities to Regional Air Pollution Exposure in Mexico

Sarmiento L. and Gutierrez-Meave R.

TEACHING

Courses Taught

- Environmental Economics and Policy, University of Bologna, Spring 2026
- Environmental Economics and Policy, University of Bologna, Spring 2025
- Environmental Economics and Policy, University of Bologna, Winter 2024
- Global Environmental Challenges, Politecnico Di Milano, Spring 2024
- Environmental Economics and Policy, University of Bologna, Spring 2024
- Environmental Economics and Policy, University of Bologna, Spring 2023
- Applied Econometrics for Energy and Env. Economics, Berlin University of Technology, Summer 2020
- Applied Econometrics for Energy and Env. Economics, Berlin University of Technology, Summer 2019

Visiting Scholar

- Comparing decarbonisation scenarios across the Atlantic, Univ. of Tokyo, Fall 2024
- Environmental Economics and Policy, KDI School of Public Policy, Fall 2024
- Environmental Economics and Policy, KDI School of Public Policy, Spring 2023
- Environmental Economics, University of Verona, Spring 2023

TECHNICAL SKILLS & LANGUAGES

Software: R (RStudio), Python, Quarto, Git, GAMS, Julia

Methods: Difference-in-Differences, Regression Discontinuity, Instrumental Variables, Panel Data, Machine Learning, Agent-Based Modeling, Integrated Assessment Models

Languages: Spanish (native), English (fluent), Italian (advanced), German (intermediate)

SELECTED CONFERENCES

- EARE Annual Conference, Leuven BE, Summer 2024
- MEEP Workshop, Hamburg DE, Summer 2024
- IAERE Annual Conference, Pescara IT, Spring 2024
- IEA World Congress, Medellin CO, Fall 2023
- ICEE World Conference, Cagliari IT, Spring 2023
- IAERE Annual Conference, Napoli IT, Winter 2023
- EAERE Annual Conference, Rimini IT, Summer 2022

REFERENCES

Christian von Hirschhausen

Professor, TU Berlin

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Moritz Drupp

Associate Professor, ETH Zurich

mdrupp@ethz.ch