Steven Koller, PhD

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PROFESSIONAL EXPERIENCE

Harvard University Joint Center for Housing Studies, Cambridge, MA July 2024-present Climate and Housing Postdoctoral Research Fellow RAND Corporation (remote) Summer 2022 Summer Associate Environmental Defense Fund, New York, NY 2017-2019 Economics and Policy Analyst UC San Diego, San Diego, CA 2016-2017 Graduate Research Assistant United Nations Development Programme, Singapore Summer 2016

Intern

Gunderson, Dettmer LLP, New York, NY 2013-2015 Corporate and Securities Paralegal

EDUCATION

University of Miami 2024

Ph.D., Environmental Science and Policy

Dissertation title: "Navigating Flood Hazard in a Changing Climate: Household Asset Exposure, Vulnerabilities, and Policy Opportunities for Risk Mitigation."

Dissertation committee: Drs. Renato Molina, Katharine Mach, David L. Kelly, Robert Nicholls (University of East Anglia)

Coursework: Ph.D.-level Econometrics sequence; Environmental Economics; Economics and Politics of Environmental Policy; Earth Science; Science of Actionable Knowledge.

UC San Diego, School of Global Policy & Strategy

2017

Master of International Affairs (concentrations: Environmental Policy and International Economics)

Full merit scholarship.

Thesis: "Evaluating Risk Discounts After Hurricane Sandy: Evidence from Property Transactions in New York City."

Penn State — University Park, Schrever Honors College

2012

B.S., Sociology (concentration: Economics); B.A., History; Minor, International Relations

Distinguished Graduating Senior in Sociology.

Phi Beta Kappa.

2008

TEACHING EXPERIENCE

University of Miami

Spring 2022

Lecturer and Teaching Assistant (undergraduate)

"ECS 111 — Introduction to the Earth's Ecosystem" with Prof. Caroline Hammerschlag-Peyer. Delivered course lecture on "Water and Its Use." †

University of Miami

Fall 2021

Teaching Assistant (graduate)

"MES 624 - Statistics and Data Analysis for Environmental Science and Policy" with Prof. Renato Molina. Led weekly discussion section reviewing statistical methods, applications, and visualizations in RStudio. †

UC San Diego

Winter, Spring 2017

Teaching Assistant (undergraduate)

"INTL 101—Global Environmental Problems, Environmentalisms, and the Age of the Anthropocene" with Prof. Matthew Vitz, Winter 2017. Led two weekly discussion sections. 26/27 positive recommendations in course evaluation.

"INTL 102—Economics, Politics, and International Change: Analyzing Current Security Problems" with Prof. Barbara Walter, Spring 2017. Led two weekly discussion sections. 27/27 positive recommendations in course evaluation.

EPIK Program, Republic of Korea

2012-2013

English Teacher at Jukrim Public Elementary School, Cheongju, South Korea.

PEER-REVIEWED PUBLICATIONS AND PROFESSIONAL RE-PORTS

Miller, B., Clancy, N., Ligor, D.C., Kirkwood, G., Metz, D., **Koller, S.**, and Stewart, S. "The Cost of Cost-Effectiveness: Expanding Equity in FEMA's Hazard Mitigation Assistance Grants." RAND Corporation Homeland Security Operational Analysis Center. February 2023. Related FEMA policy change, October 2022.

Mach, K.J., Hino, M., Siders, A.R., Koller, S., Kraan, C., Niemann, J., and Sanders, B. "From flood control to flood adaptation: managing dynamic risks and promoting just well-being." Oxford Encyclopedia of Water Resources Management and Policy. November 22, 2022.

Berrang-Ford, L., Siders, A.R., Lesnikowski, A. et al. "A systematic global stocktake of evidence on human adaptation to climate change." *Nature Climate Change*. (2021).

Proville, J., Parkhurst, R., Koller, S., Kroopf, S., Baker, J. S., and Salas, W. A. "Agricultural Offset Potential in the United States: Economic and Geospatial Insights." *EDF Economics Discussion Paper Series*. EDP 20-01. September 2020.

Lackner, M., Koller, S., and Camuzeaux, J. R. "Policy Brief—Using Lessons from Reverse Auctions for Renewables to Deliver Energy Storage Capacity: Guidance for Policymakers." *Review of Environmental Economics and Policy* Vol. 13, No. 1, Winter 2019. pp. 140-148.

 $^{^\}dagger \text{University}$ did not collect TA evaluation for this course.

WORK IN PROGRESS

"Vehicle flood damage and Federal disaster assistance in the United States." (revise and resubmit at *Risk Management and Insurance Review*)

"Estimating effects of projected mean sea level rise exposure on measures of residential property value: evidence from the southeastern United States." (under review)

"Estimates of vehicle flood exposure and risk in the United States." (working paper)

"The willingness to pay for vehicle flood insurance." (working paper)

CONFERENCES AND INVITED PRESENTATIONS

American Risk and Insurance Association 2024 Annual Conference. "Driving up flood risk? Vehicle flood exposure, vulnerabilities, and disaster assistance in the United States." Denver, CO. August 4-7, 2024.

At What Point Managed Retreat? Habitability and Mobility in an Era of Climate Change. "Outracing the flood: novel estimates of vehicle flood exposure and vehicle flood damages in the United States" and "Exploring price effects of sea level rise exposure across race and income: evidence from property sales in the southeastern United States." Columbia University, New York, NY. June 2023 (remote).

Hunter College Dept. of Urban Policy and Planning, New York, NY. URBP 7871P "Green Infrastructure and the Waterfront" guest lecturer. "Multiobjective stormwater management." April 2023.

Interdisciplinary PhD Workshop in Sustainable Development, Columbia University, New York, NY. March 24-25, 2023. "Exploring price effects of sea level rise exposure across race and income."

University of Exeter Challenges and Opportunities for Urban Stormwater Infrastructure in the Face of Global Change workshop. "Estimates of vehicle flood exposure and flood damages in the United States." Exeter, United Kingdom. February 2023 (remote).

Association of Environmental and Resource Economists Summer Conference. "Sea level rise exposure discounts: differences across race and income" (poster). Miami, FL. June 2022.

University of Miami Climate Resilience Academy Symposium. "Compounding Climate Risks and Adaptation in Coastal Communities." April 2022. Coral Gables, FL.

European Association of Environmental and Resource Economists Annual Conference. Policy Session Co-Organizer with Maureen Lackner: "Toward 100% Clean Energy—Economic and Political Considerations for Energy Storage in Future Energy Systems." Manchester, United Kingdom. June 2019.

2019 Mellon Foundation Policies for Progress. "Serious Games for Serious Policymaking: Adapting to Sea Level Rise in the New York/New Jersey Region." Purdue University, West Lafayette, Indiana. May 2019. Recording.

Association for Public Policy Analysis and Management Regional Student Conference. "Evaluating Risk Discounts After Hurricane Sandy: Evidence from Property Transactions in New York City". UC-Riverside, Riverside, CA. May 2017.

OTHER WRITING

"The Insurance Crisis Continues to Weigh on Homeowners." Joint Center for Housing Studies of Harvard University blog series. December 10, 2024.

"Risk and Response: Lessons from First Reformed and Force Majeure." Museum of the Moving Image Sloan Science and Film, Science on Screen: Extinction and Otherwise. April 15, 2022.

"Corps should include nature-based and equitable solutions to flooding in Miami— Op-Ed." *The Miami Herald.* August 14, 2020, with Nadia Seeteram.

"Nature-based solutions can help New York and New Jersey adapt to rising seas and intensifying storms." Environmental Defense Fund blog. August 19, 2019.

"New analyses agree carbon pricing is a powerful solution." Environmental Defense Fund blog. Co-authored with lead author Susanne Brooks. August 23, 2018.

PRESS AND MEDIA

"Gowanus locals mix technology and design to cut back on flooding with the GLOwanus Lantern" *Brooklyn Paper*. Ximena Del Cerro, January 30, 2024.

"As Gowanus Rezoning Moves Ahead, Are the Sewers Ready?" City Limits. Mary Cunningham, August 1, 2023.

"Stay home if you can': Southern Queens residents told to move to higher ground amid tidal flooding." *QNS.com.* Julia Moro, December 23, 2022.

"Q&A about Gowanus CSO Installation." Van Alen Institute, Brooklyn, NY. April 2022.

"Explore the Gowanus Canal's Hidden Environmental History and Future at Weekend Walking Tour." *Brooklyn Paper*. Kevin Duggan, September 9, 2020.

"Enabling storage integration through market-driven procurements." *Utility Dive.* Herman K. Trabish, February 25, 2019.

"Coming home for collaboration." UC San Diego School of Global Policy and Strategy News. Sarah Pfledderer, May 5, 2017.

AWARDS, FELLOWSHIPS, OTHER

National Science Foundation International Research Experience for Students (IRES): Leveraging Dutch Expertise in Advanced Techniques for Water Management attendee. Two-week intensive in-country training program in Delft, Netherlands. June 2023.

University of Miami Institute for Data Science and Computing Early Career Researcher Award (~\$1,000 computing credits on Pegasus high-performance computer), 2022-present.

U-LINK Pre-doctoral Fellow. "Next Generation of Coastal Structures: Feasibility, Quantification, and Optimization." Two years graduate stipend. University of Miami, 2020-2021. Fellowship included research assistance support for Adaptation Infrastructure and Its Effects on Property Values in the Face of Climate

Risk by Kelly & Molina (2023).

Gowanus Neighborhood Design Fellow. Van Alen Institute, Brooklyn, NY. 2021-present.

Sustainable Climate Risk Management (SCRiM) Summer School attendee, Penn State University, 2018.

SERVICE

Referee: Climatic Change, Frontiers in Climate, Land Economics.

Advisory committee member: Resilient Equitable Infrastructure program, The Miami Foundation (2020-2022).

Community work: Gowanus Canal Superfund Site Community Advisory Group, alternate representative of Gowanus Dredgers Canoe Club (2021-present).

LANGUAGES AND SKILLS

<u>Native:</u> English. <u>Basic</u> (coursework or in-country living experience): Mandarin Chinese, Korean, Russian, Spanish.

Fluent: R, Stata, LATEX, ArcGIS Pro, QGIS; Basic: Python, bash, SQL, HTML, Delft3D Flexible Mesh.

SECURITY/BACKGROUND CHECK

US Department of Homeland Security High Risk Risk/Clearance Level. Fitness Determination effective: May 2022.

PROFESSIONAL AFFILIATIONS

Association of Environmental and Resource Economists; American Risk and Insurance Association; European Association of Environmental and Resource Economists.