MATT VARKONY

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 Rosenstiel School of Earth, Marine, and Atmospheric Science: Key Biscayne, Florida

PhD Candidate in the Department of Environmental Science and Policy

EDUCATION

University of Miami   *Miami, FL*
PhD in Environmental Science and Policy   *2018 - Current*
(Concentrations: Econometrics, Climate Risk, Affordable Housing)

University of Miami   *Miami, FL*
Masters in Natural Hazards Analysis   *2016 - 2018*
Bachelor of Science(s): Mathematics and Economics   *2012 - 2016*

WORK EXPERIENCE

Department of Environmental Science and Policy   *2018 - Current*
Graduate Researcher
- Co-authored peer-reviewed article "Striving for Improvement: The Perceived Value of Improving Hurricane Forecast Accuracy"
- Contributed to survey design and creation using the survey platform Qualtrics
- Analyzed $4,000+$ survey responses via a contingent valuation method to determine individuals willingness to pay for hurricane forecasting improvements using the programming language R
- Assisted in the publication of peer-reviewed article "Adaptation Infrastructure and its Effects on Property Values in the Face of Climate Risk"
- Analyzed over 1 million housing transactions using a difference in difference research design via programming language R to determine if home prices respond to climate adaptation infrastructure.

Tampa Bay Regional Planning Council   *September 2021-August 2022*
National Academies of the Sciences Gulf Research Program's Science Policy Fellow
- Lead author of REACH Technical Report
- Conducted spatial analyses in R, including a hot spot analysis to locate intersections of affordable housing and flood risk within seven county region.
- Presented results from the REACH Report to policy makers and housing practitioners at regional conference on housing affordability and climate risk.
- Developed the research design for a non-market valuation study of the Tampa Bay watershed.

University of Miami's Office of Community and Civic Engagement   *2020 - 2021*
Graduate Researcher
- Developed a Resilience Policy Toolkit for the local government to incorporate initiatives increasing the climate resilience of affordable homes throughout Miami-Dade County.
- Developed the spatial design and tools for an interactive affordable housing map identifying climate risk to subsidized housing projects throughout Miami-Dade County.

National Oceanic and Atmospheric Agency (NOAA)   *September 2016 - June 2018*
Graduate Researcher
- Sourced and cleaned $10,000+$ data points on fish landings for a peer-reviewed article on occupational hazard of commercial fishermen in the Gulf of Mexico.
- Conducted an extensive literature review on fishers and occupational hazard in fisheries to provide background for a peer-reviewed article.

LEADERSHIP EXPERIENCE

Student Led Evaluation and Development (SLED)   *August 2018 - May 2020*
Chair (2019-2020)
- Served as the head liaison for the marine science graduate student body with the faculty and administration of the college.
- Designed and conducted annual surveys to determine the health of the mentor-mentee relationship throughout the marine science college.
- Presented survey findings to the faculty board at college town hall events
- Scheduled trainings and events to foster positive mentor-mentee relationships throughout the college.

CaneContact   *2019-2020*
- Assisted newly accepted marine science graduate students in acclimating to life at RSMAS
- Provided academic guidance in the form of class recommendations, work-life trade-offs, and professor interactions.

TECHNICAL SKILLS

Advanced Programming:	R (Data Wrangling, Econometrics, Spatial Analysis) & Github
Proficient Programming:	MATLAB, Python, Command Line Interface, SQL
Software & Tools:	GIS (ArcPro), StoryMaps, Microsoft Office
Research Methods:	Quasi-Experimental Methods, Survey Design
Languages:	English (Native), Spanish (Proficient)

AWARD AND HONORS

Graduate Student Coastal and Ocean Fellowship   *2023 - 2024*
Florida Sea Grant
- Awarded $25,000 to carry out a study of hurricane effects on rental markets in Florida
Gulf Research Science Policy Fellowship   *2021-2022*
National Academies of Sciences, Engineering, and Medicine
- Assigned to the Tampa Bay Regional Planning Council (TBRPC) as a consultant for climate policy research
Graduate Career Development Fund Award   *2019*
- Awarded $500 to lead a website development seminar for students at the Marine Science Graduate School
Actuary Exam - P   *2015*
- Passed Actuary Exam 1

RESEARCH

Published Papers

Striving for Improvement: The Perceived Value of Improving Hurricane Forecast Accuracy [Bulletin of the American Meteorological Society]
(with R. Molina, D. Letson, B. McNoldy, P. Mozumder)

Government Reports

REACH Technical Report: Density Analysis of Flood Risk to Affordable Housing
(with Tampa Bay Regional Planning Council)