

ORGANIZATION ROLE

Vice President for Applied Research

PROJECT ROLE / FOCUS AREAS

Climate adaptation

Hazard mitigation

Urban resilience

Disaster recovery

Decision making under deep uncertainty

EDUCATION

Ph.D., Policy Analysis, Pardee Rand Graduate School, 2010

M. Phil Policy Analysis, Pardee RAND Graduate School 2006

BA, History, Columbia University, 2001

PROFESSIONAL SERVICE

Water Science and Technology Board, National Academies of Science, Engineering, and Medicine

Pittsburgh Water and Sewer Authority Board

JORDAN R. FISCHBACH, PH.D.

Vice President for Applied Research

Jordan R. Fischbach, Ph.D., is the Vice President for Applied Research and Director of Planning and Policy Research at The Water Institute. He helps to oversee the Institute's applied research portfolio, manages a research department, and leads policy research projects focused on climate adaptation, urban resilience, coastal planning, flood risk analysis, and post-disaster recovery. His expertise includes Robust Decision Making and other methods for decision making under deep uncertainty (DMDU), risk analysis, and interactive data visualization.

Before joining the Institute, Jordan was codirector of the RAND Climate Resilience Center, a senior policy researcher at the RAND Corporation, and an affiliate faculty member at the Pardee RAND Graduate School. Since 2010, he has been a principal investigator for the Coastal Louisiana Risk Assessment (CLARA) modeling effort, which provides next-level modeling capabilities for Louisiana's Coastal Protection and Restoration Authority to estimate flood risk under a wide range of future environmental, operational, and growth uncertainties and with various proposed projects in place.

Jordan has also led recent Institute work evaluating the economic, environmental, and social benefits of Nature Based Solutions and investigating present and future flood risk from heavy rainfall in New Orleans. His other work includes serving as a co-investigator for the NOAA MARISA Climate Adaptation Partnership program, which has the goal to support the effective utilization of climate science and the building of adaptive capacity and resilience to climate variability and change in the Mid-Atlantic region.

PROFESSIONAL EXPERIENCE

2024–Present: Vice President for Applied Research, The Water Institute

2021–Present: Director of Planning and Policy Research, The Water Institute

2010–2021: Associate/Full/Senior Policy Researcher, RAND Corporation

2014–2021: Climate Resilience Center Co-director, RAND Corporation

2011–2021: Professor of Policy Analysis, Pardee RAND Graduate School

2018–2020: Quality Assurance Manager, Homeland Security Operational Analysis Center

2004–2010: Assistant Policy Analyst, RAND Corporation

2001–2004: Analyst. The Cadmus Group, Inc.

SELECTED PROJECTS

Modeling and Decision Support for Louisiana's Coastal Master Plan *(2010–Present).* Principal Investigator. Overall program PI, risk assessment team co-lead, and decision support team lead for Louisiana's 2029 Coastal Master Plan; previously risk assessment co-lead to develop and update the Coastal Louisiana Risk Assessment (CLARA) model to provide next-level modeling capabilities and support the development of Louisiana's 2012, 2017, and 2023 Coastal Master Plans.

City of Jacksonville Compound Flood Risk Analysis *(2023–Present).* Co-Principal Investigator. Leading the flood consequences team and supporting model application for an effort to develop a probabilistic compound flood modeling framework specifically tailored to Jacksonville's coastal and riverine systems and its natural and built environment.

Resilience Interventions for Shoreline Edges (RISE) in New York City *(2026–Present).* Core Team Member. Current effort in support of NYCDEP to create an informed decision-making framework for intervention along the city's shoreline based on established topographic and temporal conditions.

MARISA Regional Integrated Sciences and Assessments Program *(2016–Present).* Co-Investigator. Co-Investigator for the NOAA-supported MARISA program, partnering with Pennsylvania State University, Johns Hopkins, Cornell, Carnegie Mellon, VIMS, and Morgan State; MARISA's goal is to support the effective utilization of climate science and the building of adaptive capacity and resilience to climate variability and change in the Mid-Atlantic region.

Facilitating Dynamic Adaptive Pathways for Coastal Decision-Makers through Land Ice and Water Projections (2022-2026). Principal Investigator. Institute Principal Investigator for a multiyear effort funded by the Gulf Research Program to develop and apply high-resolution, probabilistic projections of future sea level rise in the Gulf of Mexico; co-leading the development of adaptation strategies for the State of Louisiana and other Gulf Coast communities using a dynamic adaptive policy pathways (DAPP) approach.

Policy Research to Improve the Evaluation of Nature Based Solutions and Better Consider Equity in U.S. Army Corps of Engineers Programs *(2021–2024).* Principal Investigator. Leading multiple connected policy research project to review existing planning and evaluation methods for feasibility studies and identify opportunities to better incorporate the economic, environmental, and social benefits of nature-based solutions and consider various dimensions of equity throughout the planning process.

Integrated Analysis and Planning to Reduce Coastal Risk, Improve Water Quality, and Restore Ecosystems in Jamaica Bay, New York. *(2014–2018).* Co-Principal Investigator. Co-led a multiyear effort to work with local, state, and federal agencies with responsibilities in Jamaica Bay, located in South Brooklyn and Queens in New York City, as well as the Science and Resilience Institute at Jamaica Bay, to develop an integrated modeling and scenario analysis and evaluate baywide alternatives that address coastal resilience, ecosystem health and habitat function, and water quality goals.

SELECTED PUBLICATIONS

1. Genc, U., Johnson, D. R., Fischbach, J. R., Grismore, A., Haertling, A., Hemmerling, S., & Kane, P. (2025). Evaluating critical and essential service access vulnerabilities. *Environmental Research Letters,* 20(8), 084060.
2. Fischbach, J. R., Johnson, D. R., & Groves, D. G. (2019). Flood damage reduction benefits and costs in Louisiana's 2017 Coastal Master Plan. *Environmental Research Communications*, 1(11).
3. Fischbach, J., May, L., Whipkey, K., Shelton, S., Vaughan, C., Tierney, D., Leuschner, K., Meredith, L., & Peterson, H. (2021*). After Hurricane Maria: Predisaster conditions, hurricane damage, and recovery needs in Puerto Rico.* Homeland Security Operational Analysis Center operated by the RAND Corporation
4. Groves, D.G., E. Molina-Perez, E. Bloom, and J.R. Fischbach (2019). Robust Decision Making (RDM): Application to Water Planning and Climate Policy. *Decision Making under Deep Uncertainty: From Theory to Practice*, Springer, Cham, pp. 135–163.
5. National Academies of Sciences, Engineering, and Medicine, *Understanding the Long-Term Evolution of the Coupled Natural-Human Coastal System: The Future of the U.S. Gulf Coast*, Washington, DC: The National Academies Press, 2018.