



PATRICK BODILLY KANE, PHD

Policy Researcher

Patrick Bodilly Kane, Ph.D., is a policy researcher on The Water Institute's Planning and Policy team, where he focuses on robust decision-making, risk perception, and policy development. Prior to working at the Institute, Patrick's research examines how risk perceptions impact decisions on topics ranging from climate change to COVID-19. Since coming to the Institute, Patrick's research has focused on quantifying the impacts of policy, including developing consequence modeling in support of flood risk analysis and benefit-cost analysis for green infrastructure. Patrick also focuses on robust decision-making analysis, a model-based approach for understanding uncertain systems, which he has applied in the domain of emissions reduction, stormwater management and the management of the Mississippi River.

COMPANY ROLE

Policy Researcher

EDUCATION

Postdoc Biomedical
Ethics Unit, McGill
University, Present

PhD Behavioral
Decision Research,
Carnegie Mellon
University, 2017

MS Behavioral
Decision Research,
Carnegie Mellon
University, 2014

BS Decision Science &
Philosophy, Carnegie
Mellon University,
2012

PROFESSIONAL MEMBERSHIP

Society for Judgement
and Decision Making

PROFESSIONAL EXPERIENCE

2021-Present: Research Scientist 2, The Water Institute

2018-Present: Post-doctoral Research Fellow, Biomedical Ethics Unit, McGill University

2013-2018: Head Teaching Assistant, Decision Analysis, Carnegie Mellon University

2016-2017: Teaching Assistant, Empirical Research Methods, Carnegie Mellon University

2016: Data Science Intern, Adobe Systems

2015: Teaching Assistant, Behavioral Decision Making, Carnegie Mellon University

2012-2014: Teaching Assistant, Policy Analysis I, Carnegie Mellon University



SELECTED PROJECTS

Lower Mississippi River Management Program. (2022-present). Policy Researcher. Working on the scenario development task, to help identify scenarios in which the river management program fails to meet its goals. Developing an RDM framework to help account for the uncertainty in river conditions over the next 50 to 75 years.

Louisiana Watershed Initiative. (2022-present). Policy Researcher. Working on flood consequences analysis for the statewide program. Developing a code to integrate the go-consequences analysis package with automated scripting for HEC-RAS runs throughout the state.

Policy Research to Improve the Evaluation of Nature Based Solutions in U.S. Army Corps of Engineers Programs. (2022-2023). Policy Researcher. Updated existing cost benefit analysis for six selected USACE projects to incorporate newly monetized benefits for plans with nature based solutions.

SELECTED PUBLICATIONS

1. Broomell, S.B. & Kane, P.B. (2021). Perceiving a Pandemic: The Effect of Superspreading Events on Pandemic Risk Perception Decision.
2. Kane, P. B., Moyer, H., MacPherson, A., Papenburg, J., Ward, B. J., Broomell, S. B., & Kimmelman, J. (2020). Expert Forecasts of

- COVID-19 Vaccine Development Timelines. *Journal of General Internal Medicine*, 1-3.
3. Kane, P. B., Benjamin, D. M., Barker, R. A., Lang, A. E., Sherer, T., & Kimmelman, J. (2020). Comparison of Patient and Expert Perceptions of the Attainment of Research Milestones in Parkinson's Disease. *Movement Disorders*.
4. Kane, P. B., & Broomell, S. B. (2020). Applications of the bias-variance decomposition to human forecasting. *Journal of Mathematical Psychology*, 98, 102417.
5. Kane, P. B., Benjamin, D. M., Barker, R. A., Lang, A. E., Sherer, T., & Kimmelman, J. (2020). Forecasts for the Attainment of Major Research Milestones in Parkinson's Disease. *Journal of Parkinson's Disease*, (Preprint), 1-9.
6. Kane, P. B., Kim, S. Y., & Kimmelman, J. (2020). What Research Ethics (Often) Gets Wrong about Minimal Risk. *The American Journal of Bioethics*, 20(1), 42-44.
7. Golman, R., Bhatia, S., & Kane, P. B. (2019). The dual accumulator model of strategic deliberation and decision making. *Psychological Review*.
8. Broomell, S. B., Winkles, J. F., & Kane, P. B. (2017). The Perception of Daily Temperatures as Evidence of Global Warming. *Weather, Climate, and Society*.
9. Broomell, S. B. & Kane, P. B. (2017). Public Perception and Communication of Scientific Uncertainty. *Journal of Experimental Psychology: General*, 146(2), 286-304.
10. Kane, P., & Zollman, KJS (2015). An Evolutionary Comparison of the Handicap Principle and Hybrid Equilibrium Theories of Signaling. *PLoS ONE*, 10(9), e0137271. doi:10.1371/journal.pone.0137271