MELISSA L. FINUCANE
BIOGRAPHICAL SKETCH

RAND Corporation, Pittsburgh PA
EMAIL: finucane@rand.org; TEL: 412-683-2300 x4279; FAX: 412-683-2800; MOB: 310-496-9067

A. AREAS OF SPECIALIZATION

- Evaluation at multiple levels (from integrated science programs to individual decision competence)
- Environmental and health risk perception and communication
- Decision making under uncertainty
- Climate change adaptation and resilience
- Urbanization and environmental health in the Asia-Pacific, Gulf of Mexico, and Mid-Atlantic regions

My work links individual-level psychosocial factors and community-level cultural and demographic factors with regional-level policy making about environmental and health risks such as climate change impacts, urbanization, freshwater management, oil spills, and infectious disease outbreaks. I have developed and implemented research aimed at evaluating the impact of complex, interdisciplinary science programs. The evaluations have resulted in generalizable conceptual frameworks and diverse quantitative and qualitative metrics. My work informs the development of tools to improve societal decision making about managing hazards within social-ecological systems, particularly in the Asia-Pacific, Gulf of Mexico, and Mid-Atlantic regions.

B. EDUCATION

University of Western Australia	Psychology	B.Sc., Honors, 1991
University of Western Australia	Clinical Psychology	M.Psych., 1998
University of Western Australia	Psychology	Ph.D., 1998

C. APPOINTMENTS

2013-present	Senior Behavioral and Social Scientist, RAND Corporation, Pittsburgh PA
2013-present	Adjunct Associate Professor, Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh PA
2007-2021	Senior Fellow, East-West Center, Honolulu HI
2012-2017	Affiliate Graduate Faculty, Geography Department, University of Hawaiʻi, Honolulu HI
2006-2007	Senior Research Investigator, Center for Health Research Hawaiʻi, Honolulu HI
2001-2006	Research Investigator, Center for Health Research Hawaiʻi, Honolulu HI
1997-2001	Research Scientist, Decision Research, Eugene, Oregon
1997-2000	Visiting Scholar, Institute for Cognitive & Decision Sciences, Univ. of Oregon

D. SELECTED PUBLICATIONS (IN REVERSE CHRONOLOGICAL ORDER)

Finucane, M. L., Beckman, R., Ghosh-Dastidar, M., Dubowitz, T., Collins, R. L., & Troxel, W. (2022). Do social isolation and neighborhood walkability influence relationships between COVID-19 experiences and wellbeing in predominantly Black, urban areas? *Landscape and Urban Planning, 217,* 104264.

Clancy, N., **Finucane, M.L.,** Fischbach, J.R., Groves, D.G., Knopman, D., Patel, K.V., and Dixon, L. (2022). *The Building Resilient Infrastructure and Communities Mitigation Grant Program: Incorporating Hazard Risk and Social Equity into Decisionmaking Processes*. Homeland Security Operational Analysis Center operated by the RAND Corporation, Santa Monica, CA. https://www.rand.org/pubs/research_reports/RRA1258-1.html

Finucane, M. L., Warren May, L., & Chang, J. (2021). *A Scoping Literature Review of Indicators and Metrics for Assessing Racial Equity Performance in Disaster Preparation, Response, and Recovery.* Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/research_reports/RRA1083-1.html

Petrun Sayers, E. L., Parker, A. M., Seelam, R., & **Finucane, M. L.** (2021). How disasters drive media channel preferences: Tracing news consumption before, during, and after Hurricane Harvey. *Journal of Contingencies and Crisis Management*, 1-15. Retrieved from https://doi.org/10.1111/1468-5973.12348

Breslau, J., **Finucane, M. L.,** Locker, A. R., Baird, M. D., Roth, E. A., & Collins, R. L. (2021). A longitudinal study of psychological distress in the United States before and during the COVID-19 pandemic. *Preventive Medicine*, 106362. doi:https://doi.org/10.1016/j.ypmed.2020.106362

Breslau, J., North, C. S., **Finucane, M. L.,** Roth, E., & Collins, R. L. (2022). Perceived need for mental health treatment and the mental health response to the COVID-19 pandemic in the United States. *Psychiatry*, *85*(1), 1-12.

Finucane, M. L., J. Acosta, A. Wicker and K. Whipkey (2020). Short-term solutions to a long-term challenge: rethinking disaster recovery planning to reduce vulnerabilities and inequities. *International Journal of Environmental Research and Public Health,* **17**(2): 482.

Locker, A. R., **Finucane, M.L**., Roth, E. A., Carman, K. G., & Breslau, J. (2021). Nationally representative sample shows an increase in domestic conflict early in the CoViD-19 pandemic. *Disaster medicine and public health preparedness*, 1-4.

Sandifer, P. A., Ferguson, A., **Finucane, M.L.,** Partyka, M., Solo-Gabriele, H. M., Walker, A. H., ... & Yoskowitz, D. (2021). Human health and socioeconomic effects of the Deepwater Horizon oil spill in the Gulf of Mexico. *Oceanography*, *34*(1), 174-191.

Narayanan, A., **M.L. Finucane**, J. Acosta and A. Wicker (2020). From awareness to action: Accounting for infrastructure interdependencies in disaster response and recovery planning. *Geohealth* **4**(8): e2020GH000251.

Parks, V., Ayer, L., Ramchand, R., & **Finucane, M. L.** (2020). Disaster experience, social capitals, and behavioral health. *Natural Hazards, 104*, 959–977.

Parks, V., Slack, T., Ramchand, R., Drakeford, L., **Finucane, M. L.**, & Lee, M. R. (2020). Fishing Households, Social Support, and Depression after the Deepwater Horizon Oil Spill. *Rural Sociology*. doi:10.1111/ruso.12297

Sandifer, P., Knapp, L., Lichtveld, M., Manley, R., Abramson, D., Caffey, R., Cochran, D., Collier, T., Ebi, K., Engel, L., Farrington, J., **Finucane, M.,** . . . Singer, B. (2020). Framework for a Community Health Observing System for the Gulf of Mexico Region: Preparing for Future Disasters. *Frontiers in Public Health, 8*(588). doi:10.3389/fpubh.2020.578463

Gingerich, S.B., Johnson, A.G., Rosa, S.N., Marineau, M.D., Wright, S.A., Hay, L.E., Widlansky, M.J., Jenson, J.W., Wong, C.I., Banner, J.L., Keener, V.W., and **Finucane, M.L.,** (2019). Water resources on Guam—Potential impacts of and adaptive response to climate change: U.S. Geological Survey Scientific Investigations Report 2019–5095, 55 p., https://doi.org/10.3133/sir20195095

Petrun Sayers, E. L., Parker, A. M., Ramchand, R., **Finucane, M.L.**, Parks, V. A., & Seelam, R. (2019). Reaching vulnerable populations in the disaster-prone US Gulf Coast: Communicating across the crisis lifecycle. *Journal of Emergency Management, 17*(4), 271-286.

Finucane, M.L., Clark-Ginsberg, A., Parker, A.M., Becerra-Ornelas, A.U., Clancy, N., Ramchand, R., et al. (2020). *Building Community Resilience to Large Oil Spills: Findings and Recommendations from a Synthesis of Research on the Mental Health, Economic, and Community Distress Associated with the Deepwater Horizon Oil Spill.* Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/research_reports/RRA409-1.html. Also available in print form.

Slack, T., Parks, V., Ayer, L., Parker, A. M., **Finucane, M. L.,** & Ramchand, R. (2020). Natech or natural? An analysis of hazard perceptions, institutional trust, and future storm worry following Hurricane Harvey. *Natural Hazards*. doi:10.1007/s11069-020-03953-6

Parker, A. M., Edelman, A. F., Carman, K. G., & **Finucane, M. L.** (2019). On the Need for Prospective Disaster Survey Panels. *Disaster Medicine and Public Health Preparedness*, 1-3. doi:10.1017/dmp.2019.94

Drakeford, L., Parks, V., Slack, T., Ramchand, R., **Finucane, M.L.,** Lee, M.R. (2019). Oil spill disruption and problem drinking: Assessing the impact of religious context among Gulf Coast residents. *Population Research and Policy Review*. Published online. doi:10.1007/s11113-019-09520-7

Parker, A. M., **Finucane, M. L.,** Ayer, L., Ramchand, R., Parks, V., & Clancy, N. (2019). Persistent Risk-Related Worry as a Function of Recalled Exposure to the Deepwater Horizon Oil Spill and Prior Trauma. *Risk Analysis, 40*, 624-637. doi:10.1111/risa.13437

Ramchand, R., Seelam, R., Parks, V., Ghosh-Dastidar, B., Lee, M., & **Finucane, M.L.** (2019). Exposure to the Deepwater Horizon Oil Spill, Associated Resource Loss, and Long-Term Mental and Behavioral Outcomes. *Disaster Medicine and Public Health Preparedness*, 1-9. doi:10.1017/dmp.2019.3

Finucane, M.L., Blum, M.J., Ramchand, R., Parker, A.M., Nataraj, S., Clancy, N., Cecchine, G., Chandra, A., Slack, T., Hobor, G., Ferreira, R.J., Luu, K., Lesen, A., & Bond, C. (2019). Advancing community resilience research and practice: Moving from "me" to "we" to "3D". *Journal of Risk Research.* Published online, 1-10. doi:10.1080/13669877.2018.1517377

Spencer, J., **Finucane, M.L.,** Fox, J., Saksena, S., & Sultana, N. (2019). Emerging infectious disease, the household built environment characteristics, and urban planning: Evidence on avian influenza in Vietnam. *Landscape and Urban Planning, 193*. doi:10.1016/j.landurbplan.2019.103681

Drakeford, L., Parks, V., Slack, T., Ramchand, R., **Finucane, M.L.,** Lee, M.R. (2019). Oil spill disruption and problem drinking: Assessing the impact of religious context among Gulf Coast residents. *Population Research and Policy Review*. Published online. doi:10.1007/s11113-019-09520-7.

Parker, A. M., Edelman, A. F., Carman, K. G., & **Finucane, M. L**. (2019). On the Need for Prospective Disaster Survey Panels. *Disaster Medicine and Public Health Preparedness*, 1-3. doi:10.1017/dmp.2019.94

Petrun Sayers, E.L., Parker, A.M., Ramchand, R., **Finucane, M.L.,** Parkes, V., & Seelam, R. (2019). Reaching vulnerable populations in the disaster-prone US Gulf Coast: Communicating across the crisis lifecycle. *Journal of Emergency Management, 17(1).*

Finucane, M.L., Martino, S.C., Parker, A.M., Schlesinger, M., Grob, R., Cerully, J.R., Rybowski, L., Shaller, D. (2018). A framework for conceptualizing how narratives from health-care consumers might improve or impeded the use of information about provider quality. *Patient Experience Journal,* 5(1): Article 5. Available at: http://pxjournal.org/journal/vol5/iss1/5

Brewington, L & Keener, V. & **Finucane, M.L.** & Eaton, P. (2018). Participatory Scenario Planning for Climate Change Adaptation Using Remote Sensing and GIS. In *Comprehensive Remote Sensing, Volume 9: Applications for Societal Benefits*; Liang, S., Walsh, S.J., Eds.; Elsevier: Amsterdam, The Netherlands; pp. 236–252, https://doi.org/10.1016/B978-0-12-409548-9.10434-8.

Finucane, M.L., Nghiem, T., Saksena, S., Spencer, J.H., Fox, J.M., Nguyen, L., Trinh Dinh, T., Tran, D.V., & Nancy Davis Lewis (2017). Perceived Risk of Avian Influenza and Urbanization in Northern Vietnam. *EcoHealth, 14*, 144-154.

Ferguson, D.B., **Finucane, M.L.**, Keener, V.W., & Owen, G. (2016). Evaluation to advance science policy: Lessons from Pacific RISA and CLIMAS. In Parris, A.S., Garfin, G.M., Dow, K., Meyer, R., & Close, S. (Eds.), *Climate in Context: Science and Society Partnering for Adaptation* (pp. 215-234). West Sussex, England: Wiley.

Corlew, L.K., Keener, V., **Finucane, M.L.,** Brewington, L., Nunn-Crichton, R. Using social network analysis to assess communications and develop networking tools among climate change professionals across the Pacific Islands region. Psychosocial Intervention 24 (2015) 133–146. https://doi.org/10.1016/j.psi.2015.07.004.

Saksena, S., Fox, J., Epprecht, M., Tran, C.C., Nong, D.H., Spencer, J.H., Nguyen, L., **Finucane, M.L.**, Vien, T.D., & Wilcox, B.A. (2015). Evidence for the Convergence Model: The Emergence of Highly Pathogenic Avian Influenza (H5N1) in Viet Nam. *PLoS ONE 10(9):* e0138138. doi:10.1371/journal.pone.0138138

Finucane, M.L. & Keener, V.W. (2015). Understanding the climate-sensitive decisions and information needs of island communities, *Journal of the Indian Ocean Region, 11(1),* 110-120.

Schlesinger, M., R. , Grob, R., Shaller, D., Martino, S.C., Parker, A.M., **Finucane, M.L.**, Cerully, J.L., & Rybowski. L. (2015). Taking Patients' Narratives About Clinicians from Anecdote to Science. *New England Journal of Medicine, 373,* 675-9.

Finucane, M.L., Fox, J., Saksena, S. & Spencer, J. (2014). A Conceptual Framework for Analyzing Social-Ecological Models of Emerging Infectious Diseases. In Manfredo, M., Rechkemmer, A., Vaske, J. (Eds.). *Understanding Society and Natural Resources: Forging New Strands of Integration Across the Social Sciences* (pp. 93-109). New York: Springer Open.

Finucane, M.L., Nghiem, T., Saksena, S. Nguyen, L., Fox, J.M., Spencer, J. H., & Trinh Dinh, T. (2014). An Exploration of How Perceptions of the Risk of Avian Influenza in Poultry Relate to Urbanization in Vietnam. *EcoHealth, 11(1),* 73-82.

Finucane, M.L., Clancy, N., Willis, H., H, & Knopman, D. (2014). *The Hurricane Sandy Rebuilding Task Force's Infrastructure Resilience Guidelines: An Initial Assessment of implementation by Federal Agencies,* RR-841-DHS. (RAND Corporation, Santa Monica, CA).

Finucane, M.L., Miller, R., Corlew, L.K., Keener, V.W., Burkett, M., & Grecni, Z. (2013). Understanding the climate-sensitive decisions and information needs of freshwater resource managers in Hawaiʻi. *Climate, Weather, and Society,* 5, 293-308.

Keener, V.W., Marra, J.J., **Finucane, M.L.**, Spooner, D., & Smith, M.H. [Editors] (2012). Climate Change and Pacific Islands: Indicators and Impacts. Report for the *2012 Pacific Islands Regional Climate Assessment (PIRCA)*. Honolulu, HI: East-West Center.

Slovic, P., **Finucane, M.L.**, Peters, E., & MacGregor, D. (2009). Risk as analysis and risk as feelings: Some thoughts about affect, reason, risk, and rationality. In L. Asveld and S. Roeser (Eds.), *The Ethics of Technological Risk*. London: Earthscan, pp. 163-181.

Slovic, P., **Finucane, M. L.,** Peters, E. and MacGregor, D. G. (2004), Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality. *Risk Analysis, 24*, 311-322. doi:10.1111/j.0272-4332.2004.00433.x.

Finucane, M.L., Alhakami, A., Slovic, P., & Johnson, S.M. (2000). The affect heuristic in judgments of risks and benefits. *Journal of Behavioral Decision Making*, 13, 1-17. doi: 10.1002/(SICI)1099-0771(200001/03)13:13.0.CO;2-S.

Additional Published Work: https://www.ncbi.nlm.nih.gov/pubmed/?term=Melissa+Finucane

E. SYNERGISTIC ACTIVITIES

i. Principal Investigator of the NOAA-funded, interdisciplinary "Mid-Atlantic Regional Integrated Sciences and Assessments (MARISA)" program, Phase II, 2021-2026. MARISA conducts integrated, interdisciplinary research to support decision makers in states along the Mid-Atlantic coast of the U.S. to adapt to the changing climate. Lead for evaluation activities aimed at assessing assess the program's progress and inform course corrections as needed.

ii. Lead Principal Investigator for the NOAA-funded "Measuring and Modeling the Resilience to Floods of Coastal Communities in Louisiana," 2021-2023. This project seeks to test, validate, and improve measures of community economic resilience in coastal Louisiana in order to enhance their policy relevance.

iii. Co-Investigator for the NSF-funded "Impacts of COVID-19 on Labor Market Outcomes, Financial Well-Being, and Mental Health," 2021-2024. By surveying a nationally representative sample of

US adults, the primary goal is to longitudinally track the effects of the pandemic and the policy responses on labor market outcomes, and enhance our understanding of the links between employment, working conditions, financial well-being, and mental health.

iv. Lead Principal Investigator and Director of the "Consortium for Resilient Gulf Communities" (www.resilientgulf.org), 2014-2020. Funded by the Gulf of Mexico Research Initiative, this $9 million, interdisciplinary collaboration aims to examine the health, social, and economic impacts of the 2010 Deepwater Horizon oil spill on Gulf Coast communities. The research team includes investigators from diverse disciplines (public health, economics, decision science, sociology, environmental science, psychiatric epidemiology, law, evaluation, and community resilience) partnering across the RAND Gulf States Policy Institute, Louisiana State University, Tulane University, University of South Alabama, and Louisiana Public Health Institute.

v. Lead Principal Investigator for the NSF-funded project "How Built and Social Environments Affect COVID-19 Disaster Impacts in the Gulf of Mexico," 2021-2024. Building on the two prior waves of the Survey of Trauma, Resilience, and Opportunity Among Neighborhoods in the Gulf (STRONG), this research examines how characteristics of built and social environments are associated with 1) changes in behavioral health and financial well-being from before to during the pandemic and 2) COVID-19-related risk responses for residents in coastal counties in the Gulf of Mexico.

vi. Senior advisor for scientists, policy makers at federal, state, and local levels, and community groups on: the roles of institutions and information systems in improving regional environmental risk management capabilities; the state of crucial natural resources (water, land, forests, biological reserves); and the risks due to natural and manmade hazards, emerging diseases, and rapid urbanization.

vii. Co-director, RAND Climate Resilience Center, 2021-2023

viii. Member, Environmental Information Services Working Group, NOAA Science Advisory Board, 2020-2022

ix. Member, Editorial Board of the *Journal of Behavioral Decision Making*

x. Ad-hoc reviewer for *Risk Analysis; Social Science and Medicine; Judgment and Decision Making; Journal of Economic Psychology; Public Policy and Marketing; Psychological Science; Organizational Behavioral and Human Decision Processes.*