

MELANIE GALL, PH.D., CFM

	Emergency Management and Homeland Security Program, School of Community Resources and Development, College of Public Service and Community Solutions	Arizona State University Office: (602) 496-0178 email: melanie.gall@asu.edu researchgate.net/profile/Melanie_Gall
AREAS OF SPECIALIZATION	Natural hazards and disasters Risk metrics and indices Vulnerability, resilience & adaptation Hazard mitigation planning	Disaster losses Environmental justice Applied GIS and remote sensing Flood risk management
EDUCATION	2007 Ph.D. University of South Carolina, Geography “Indices of Social Vulnerability to Natural Hazards: A Comparative Evaluation” 2002 M.S. University of Salzburg (Austria), Geography & Geoinformatics “GIS and Multicriteria Decision Making in Disaster Management: The Identification of Flood Emergency Shelters in the Búzi and Save River Basin (Mozambique)” 1999 B.S. University of Heidelberg (Germany), Geography 1998 ERASMUS Study Abroad, University of Bergen (Norway), Anthropology & Norwegian	
PROFESSIONAL HISTORY	2017-present 2013-2016 2013-2014 2012-2013 2008-2013 2007-2008 2000/2001 1995-1997	<i>Research Professor (non-tenure track)</i> , co-Director, Center for Emergency Management & Homeland Security (CEMHS), Arizona State University <i>Research Assistant Professor (non-tenure track)</i> , Hazards & Vulnerability Research Institute, University of South Carolina <i>Program Faculty</i> , Emergency Management & Homeland Security Leadership Program, Portland State University <i>Visiting Assistant Professor</i> Department of History & Sociology, Claflin University <i>Assistant Professor – Research (non-tenure track)</i> and Director of the Disaster Science and Management Center, Department of Geography & Anthropology, Louisiana State University; Affiliate at the Stephenson Disaster Management Institute <i>Postdoctoral Fellow</i> Hazards & Vulnerability Research Institute, University of South Carolina <i>Junior Technical Expert</i> Centro da Investigação e Documentação para Desenvolvimento Integral (CIDDI-GIS), Catholic University of Mozambique at Beira <i>SICAD Technician</i> , Photogrammetrie München, Heidelberg (Germany)
ACADEMIC HONORS & AWARDS	2018 2014 2009 2004 2004 2003 – 2005 2002 – 2007	Outstanding Reviewer Award for Computers, Environment, and Urban Systems Outstanding Reviewer Award for the Natural Hazards Review, American Society of Civil Engineers Service-Learning Faculty Scholars Award, Louisiana State University Jeanne X. Kasperson Student Paper Award Hazards Specialty Group, Association of American Geographers. Paul E. Lovingood Student Paper Award Department of Geography, University of South Carolina at Columbia. International Peace Scholarship, P.E.O. Sisterhood Tuition Scholarship, University of South Carolina

PUBLICATIONS

Peer-reviewed Journal Publications

- de Sherbinin, A., A. Bukvic, G. Rohat, **M. Gall**, B. McCusker, B. Preston, A. Apotsos, C. Fish, S. Kienberger, P. Muhonda, O. Wilhelmi, D. Macharia, W. Shubert, R. Sliuzas, B. Tomaszewski, and S. Zhang (accepted). Climate change vulnerability mapping: a systematic review and recommendations for the future. *WIREs Climate Change*.
- 2019 **Gall, M.** and Carol J. Friedland (forthcoming). If Mitigation Saves \$6 Per Every \$1 Spent, Then Why Are We Not Investing More? A Louisiana Perspective on a National Issue. *Natural Hazards Review*
- 2018 Cutter, S.L., Emrich, C.T., **M. Gall**, and R. Reeves. Flash flood risk and the paradox of urban development. *Natural Hazards Review* 19(1): online.
- 2015 Cutter, S. L. and **M. Gall**. Sendai Targets at Risk. *Nature Climate Change* 5(8): 707-709.
- 2015 **Gall, M.**, K. H. Nguyen, and S. L. Cutter. Integrated research on disaster risk: Is it really integrated? *International Journal of Disaster Risk Reduction* 12 (June): 255-267. DOI:10.1016/j.ijdr.2015.01.010.
- 2015 **Gall, M.** The Suitability of Disaster Loss Databases to Measure Loss and Damage from Climate Change. *International Journal of Global Warming* 8(2); 170-190.
- 2013 Robinson, S. E., Brian J. Gerber, W. S. Eller, and **M. Gall**. Emergency planning and disabled populations: assessing the FNSS approach. *International Journal of Mass Emergencies and Disasters* 31(2): 315-329.
- 2013 Robinson, S. E., W. S. Eller, **M. Gall**, and B. J. Gerber. The core and periphery of emergency management networks. *Public Management Review* 15(3): 344-362.
- 2012 Friedland, C. J. and **M. Gall**. True cost of hurricanes – case for a comprehensive understanding of multihazard building damage. *Leadership and Management in Engineering* 12(3): 134-146.
- 2012 Fielding, W. J., **M. Gall**, D. Green, and W. S. Eller. Care of dogs and attitudes of dog owners in Port-au-Prince, the Republic of Haiti. *Journal of Applied Animal Welfare Science* 15(3): 236-253.
- 2011 **Gall, M.**, K. A. Borden, C. T. Emrich, and S. L. Cutter. The Unsustainable Trend of Natural Hazard Losses in the United States. *Sustainability* 3(11): 2157-2181 (DOI: 10.3390/su3112157).
- 2010 Melton, G., **M. Gall**, J. T. Mitchell, and S. L. Cutter. Hurricane Katrina surge delineation: implications for future storm surge forecasts and warnings. *Natural Hazards* 54(2): 519-536 (DOI: 10.1007/s11069-009-9483-z).
- 2009 **Gall, M.**, K. Borden, and S. L. Cutter. When do losses count? Six fallacies of loss data from natural hazards. *Bulletin of the American Meteorological Society* 90(6): 1-11.
- 2007 **Gall, M.**, B. J. Boruff, and S. L. Cutter. Assessing flood hazard zones in the absence of digital floodplain maps: a comparison of alternative approaches. *Natural Hazards Review* 8(1): 1–21.
- 2006 Cutter, S. L., C. T. Emrich, J. T. Mitchell, B. J. Boruff, **M. Gall**, M. Schmidtlein, C. Burton, and G. Melton. The long road home: race, class, and recovery from Hurricane Katrina. *Environment* 48(2): 8-20.
- 2004 **Gall, M.** Where to go? Access to emergency shelters in Mozambique. *Disasters* 28(1): 82-97.
- 2001 **Gall, M.**, S. Lang, and P. Zeil. After a catastrophe is before a catastrophe: GIS and remote sensing in emergency management in Mozambique [in German]. *GeoBIT/GIS* 11 (2001): 14-16.

Peer-Reviewed Book Chapters

- 2020 **Gall, M.** (forthcoming). Loss reduction and sustainability. In: From Disaster to Catastrophe: U.S. Emergency Management in the 21st Century, edited by C. Rubin and S.L. Cutter. Routledge.
- 2020 Cutter, S. L. and **M. Gall** (forthcoming). Hurricane Katrina: a failure of planning or planned failure? [in German] In *Naturrisiken und Sozialkatastrophen (2nd ed.)*, edited by C. Felgentreff and T. Glade. Heidelberg: Spektrum Akademischer Verlag.
- 2020 Gerber, B. J, C. Provost and **M. Gall** (forthcoming). Environmental Governance in Western Europe: A Comparative Assessment of Local Sustainability Practices in the Presence of Climate Change Vulnerability. In: Handbook of Environmental Governance, edited by A. Sapat. Routledge: New York, NY.

- 2019 **Gall, M.** and S. L. Cutter (forthcoming). 2005 Events and Outcomes: Beyond Hurricane Katrina. In: *Emergency Management: The American Experience 1900-2010* (3rd ed.), edited by C. B. Rubin. Fairfax, VA: CRC.
- 2017 **Gall, M.** Direct and Insured Flood Damage in the United States. In: *Flood Damage Survey and Assessment: New Insights from Research and Practice*, edited by D. Molinari, S. Menoni, and F. Ballio. American Geophysical Union and Wiley: Washington, DC: 53-64.
- 2014 **Gall, M.** and B. Gerber. Hazard Mitigation, Economic Development, and Disaster Resiliency: A Comparative Analysis of Flood Control Policy and Practice in Germany, the Netherlands, and Great Britain. In: *Disasters & Development: Examining Global Issues and Cases*, edited by N. Kapucu and K. T. Liou. New York, NY: Springer, 213-234.
- 2012 **Gall, M.** and S. L. Cutter. 2005 Events and Outcomes: Beyond Hurricane Katrina. In: *Emergency Management: The American Experience 1900-2010* (2nd ed.), edited by C. B. Rubin. Fairfax, VA: Public Entity Risk Institute (PERI), 191-212. (2008 Book Prize by the American Society for Public Administration, Section on Environment and Natural Resources Administration/SENRA)
- 2011 **Gall, M.** Social Dynamics of Unnatural Disasters: Parallels between Hurricane Katrina and the 2003 European Heat Wave. In *Dynamics of Disaster: Lessons on Risk, Response, and Recovery*, edited by R. A. Dowty and B. Allen, London: Earthscan, 159-172.
- 2008 Cutter, S. L., **M. Gall**, and C. T. Emrich. Toward a comprehensive loss inventory of weather and climate hazards. In *Climate Extremes and Society*, edited by H. F. Díaz and R. J. Murnane. Cambridge: Cambridge University Press, 279-295.

Commissioned Publications

- 2017 Gall, M., N. Campbell, S. Cutter and L. Ritchie. Disaster Planning for Food Banks: Literature Review. Chicago, IL: Feeding America
- 2014 **Gall, M.**, S. L. Cutter, and K. Nguyen. Incentives for Disaster Risk Management (IRDR AIRDR Publication No. 2). Beijing, China: Integrated Research on Disaster Risk (IRDR). DOI: 10.13140/2.1.3178.8325. Available at <http://www.irdrinternational.org/2015/01/28/airdr-report-no-2/>
- 2014 **Gall, M.**, S. L. Cutter, and K. Nguyen. Governance in Disaster Risk Management (IRDR AIRDR Publication No. 3). Beijing, China: Integrated Research on Disaster Risk (IRDR). DOI: 10.13140/2.1.2130.2568. Available at <http://www.irdrinternational.org/2015/01/29/airdr-report-no-3>
- 2014 **Gall, M.**, S. L. Cutter, and K. Nguyen. Transformative Development and Disaster Risk Management (IRDR AIRDR Publication No. 4). Beijing, China: Integrated Research on Disaster Risk (IRDR). DOI: 10.13140/2.1.1605.9682. Available at <http://www.irdrinternational.org/2015/01/30/airdr-report-no-4/>
- 2013 **Gall, M.** From Social Vulnerability to Resilience: Measuring Progress towards Disasters Risk Reduction. *Intersections* No. 13. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS). ISBN: 978-3-944535-00-5, 34 p. Available at <http://www.ehs.unu.edu/article/read/intersections>
- 2013 **Gall, M.** and S. Kreft. Measuring what matters? A suitability analysis of loss and damage databases for the climate change convention process. Bonn, Germany: Germanwatch, UNU-EHS, ICCCAD, MCII, and CDKN, 24 p. Available from <http://lossanddamage.net/4829>
- 2008 Cutter, S. L., G. Melton, and **M. Gall**. Implementation of the social vulnerability index for Martin County, Florida: methods and results. Alexandria, VA: Marstel Day Consultants, Institute for Water Resources, U.S. Army Corps of Engineers 15 p.
- 2007 **Gall, M.** and S. L. Cutter. Natural and human-induced disasters and other factors affecting future emergency response and hazards management: trends and outlook. *Water Resources Outlook*, 2007-WRO-R-04, 16 October 2007. Alexandria, VA: Institute for Water Resources, U.S. Army Corps of Engineers. 86 p. Available from <http://www.iwr.usace.army.mil/inside/products/pub/pubsearchAll.cfm?alpha=N>.

Other Publications

- 2019 National Research Council. Measuring Community Resilience. Washington D.C.: National Academies Press. (Committee Member)
- 2018 Gerber, B. and **M. Gall**. Coal ash spill highlights key role of environmental regulations in disasters. *The Conversation*. September 20, <https://theconversation.com/relaxed-environmental-regulations-heighten-risk-during-natural-disasters-103411>
- 2016 Central Midlands Council of Government. An all natural hazard risk assessment and hazard mitigation plan for the Central Midlands Region of South Carolina. For the use by municipalities and jurisdictions of Fairfield, Lexington, Newberry, and Richland Counties. <http://centralmidlands.org/publications/free-documents.html>
- 2016 **Gall, M.** and S. L. Cutter. Understanding Disaster Risk Through Loss Data. Input to Scoping report for and Open Risk Data and Modelling Report. Understanding Risk Network. <https://www.gfdrr.org/sites/default/files/solving-the-puzzle-contributions.pdf>
- 2015 **Gall, M.**, C. T. Emrich and S. L. Cutter. Who Needs Loss Data? Background Paper for the Global Assessment Report on Disaster Risk Reduction 2015 (GAR15). Geneva, Switzerland: UNISDR. Available at <http://www.preventionweb.net/english/hyogo/gar/2015/en/bgdocs/University%20of%20South%20Carolina%202014.pdf>; excerpts included in GFDRR, 2014. Understanding Risk in an Evolving World: Emerging Best Practices in Natural Disaster Risk Assessment. Washington, D.C.: The World Bank, 224 p. Available at https://www.gfdrr.org/sites/gfdrr/files/publication/Understanding_Risk-Web_Version-rev_1.8.0.pdf
- 2015 Guha-Sapir, D., R. Davis, **M. Gall**, P. Wallemacq, and S. L. Cutter. Exploring the potential of geocoding the impact of disasters: The experience of global and national databases. Geophysical Research Abstracts 17, EGU-2015-15109.
- 2014 IRDR. Guide to the IRDR Assessment on Integrated Research on Disaster Risk, IRDR AIRDR Publication No. 1. Beijing, China: Integrated Research on Disaster Risk (IRDR). Available at <http://www.irdrinternational.org/>
- 2014 IRDR. Peril Classification and Hazard Glossary, IRDR DATA Publication No. 1. Beijing, China: Integrated Research on Disaster Risk (IRDR). Available at <http://www.irdrinternational.org/2014/03/28/irdr-peril-classification-and-hazard-glossary/>
- 2013 **Gall, M.**, C. Friedland, T. A. Joyner, R. Orgera, C. Fu, and S. Ogea. Disaster Resistant University Multi-Hazard Mitigation Plan. Baton Rouge, LA: Louisiana State University System, 970 p. Available at http://dsm.lsu.edu/pr_hazmit.htm.
- 2011 W. Eller, D. Green and W. J. Fielding. Considering Animal Welfare: Implementing an Animal and Attitudinal Survey in Port-au-Prince, Haiti. *Monday Developments Magazine* 29 (1/1): 44-45.
- 2008 Contributing author to Peterson, T. C., D. M. Anderson, S. J. Cohen, M. Cortez-Vázquez, R. J. Murnane, C. Parmesan, D. Phillips, R. S. Pulwarty, and J. M. R. Stone. Why Weather and Climate Extremes Matter. In *Weather and Climate Extremes in a Changing Climate, Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands*, edited by T. R. Karl, G. A. Meehl, C. D. Miller, S. J. Hassol, A. M. Waple, and W. L. Murray. Washington, DC: U.S. Climate Change Science Program and the Subcommittee on Global Change Research, 11:34. Available at <http://www.climatechange.gov/Library/sap/sap3-3/final-report/default.htm>.
- 2002 **Gall, M.**, P. Zeil, S. Lang, T. Blaschke, F. Steinbruch, and F. José. Distribution of relief supplies to flood victims in Mozambique - can remote sensing effectively contribute to disaster management? *Proceedings of the 2nd Workshop of the EARSeL Special Interest Group*, September 18-20, 2002, Bonn (Germany), pp. 87-94.
- 2002 Steinbruch, F., **M. Gall**, and F. José. Remote Sensing and GIS for Documentation and Evaluation of the Socio-Economic and Environmental Impact of the 2000 Floods in Central Mozambique. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information*, Vol. XXXIV, Part 6/W6, pp. 59-65.

- 2001 **Gall, M.** Geoinformation for rapid flood assessment and hazard mitigation in Central Mozambique (FLAME Mission II). Final Report, November 2001. Salzburg, Austria: University of Salzburg. Available at <http://www.zgis.at/projects/Flame/>.
- 2000 **Gall, M.** Geoinformation for rapid flood assessment and hazard mitigation in Central Mozambique (FLAME Mission I). Final Report. Salzburg, Austria: University of Salzburg. Available at <http://www.zgis.at/projects/Flame/>.

Other Creative Work

- 2013-present, Spatial Hazard Events and Losses Database for the United States (SHELDUS), Center for Emergency Management and Homeland Security, Arizona State University (formerly at University of South Carolina), <http://www.sheldus.org>
- 2014 Exhibit “Explore the Economic and Human Impact of Natural Hazards In the United States” at Marian Koshland Science Museum, Washington D.C., March 2014 to present, available at <http://hvri.geog.sc.edu/sheldus/koshland/index.html>

RESEARCH FUNDING

External Grants

- 2018-2019 Gulf Research Program, National Academies of Sciences
University of South Carolina
PI: Susan Cutter
Period of Grant: Aug. 2018 – May 2019, ASU portion: \$15,000
- 2015-2018 Louisiana Governor’s Office of Homeland Security and Emergency Preparedness
Multi-scale spatio-temporal evaluation of mitigation effectiveness in reducing natural hazard damage and loss
PI: Carol Friedland
Co-PI: **Melanie Gall**, Robert Rohli, and T. Andrew Joyner
Period of Grant: Mar. 2015 – Feb. 2018, Amount: \$475,042 (ASU portion: \$185,054)
- 2017-2018 Arup
Uncertainty and Sensitivity Testing of the City Resilience Index Developed by Arup
PI: **Melanie Gall**
Period of Grant: Jul. 2017—Apr. 2018, Amount: \$38,200
- 2017-2018 Arizona Division of Emergency Management
FY 2017 EMGP
PI: Allen Clark
Co-PI: **Melanie Gall**
Period of Grant: Aug.—Jul. 2018, Amount: \$35,254
- 2016-2018 South Carolina Emergency Management Division
Improving Risk Assessment in Support of State Hazard Mitigation Planning
PI: Christopher T. Emrich (transferred to Dr. Cutter in 2016)
Co-PI: **Melanie Gall**, and Susan L. Cutter
Period of Grant: Aug. 2016 – Jul. 2018, Amount: \$592,915
- 2015-2017 National Oceanic and Atmospheric Administration (NOAA)
Improving Drought Loss Accounting in the Spatial Hazard Events and Losses Database for the United States (SHELDUS)
PI: Susan L. Cutter
Co-PI: **Melanie Gall** and Christopher T. Emrich
Period of Grant: Sep. 2015 – Aug. 2017, Amount: \$60,000
- 2015-2016 Florida Department of Emergency Management (FDEM)
Web-based Risk Assessment Planning Project for the State of Florida

- PI: Christopher T. Emrich
 Co-PI: **Melanie Gall** and Susan L. Cutter
 Period of Grant: Jul. 2015 – Jun. 2016, Amount: \$177,872
- 2016 Central Midlands Council of Governments
Risk Assessment as part of the 2016 Hazard Mitigation Plan
 PIs: Christopher T. Emrich and Melanie Gall
 Period of Grant: Jan-May 2016, Amount: \$43,000
- 2015 Imagery grant from the DigitalGlobe Foundation in support of the project *Feasibility of Automated Hurricane Damage Detection using Object-Based Image Analysis* (June 2015)
 PI: **Melanie Gall**
- 2014 United Nations Secretariat of the International Strategy for Disaster Reduction (UNISDR)
State of the Science for the Global Assessment of Disaster Risk Management (GAR)
 PI: Susan L. Cutter and **Melanie Gall**
 Period of Grant: Jan. – Jun. 2014, Amount: \$46,978
- 2013-2014 National Oceanic and Atmospheric Administration (NOAA)
2010 Census Update of the Enhancement of the Social Vulnerability Index (SOVI) for Use in Assessing Coastal Risk
 PI: Christopher T. Emrich
 Co-PI: **Melanie Gall**
 Period of Grant: Aug. 2013 – Feb. 2014, Amount: \$50,000
- 2009-2013 Louisiana Governor's Office of Homeland Security and Emergency Preparedness
Disaster Resistant University – Multi-Hazard Mitigation Plan for the LSU System
 PI: **Melanie Gall**
 Period of Grant: Sept. 2009 – Feb. 2013, Amount: \$680,214
- 2009-2012 National Science Foundation
Managing Evacuee Ingress – Network Interactions and Community Hosting Performance
 PI: Brian J. Gerber
 Co-PIs: Warren Eller, **Melanie Gall** and Scott Robinson
 Period of Grant: Sept. 2009 – Aug. 2012, Amount: \$320,048
- 2010-2012 Louisiana Sea Grant
Changing flood mitigation: The Consequences of New Flood Insurance Rate Maps on Louisiana Coastal Communities
 PI: **Melanie Gall**
 Co-PIs: M. Jude Egan, Rachel A. Dowty and Daniel Monchuk
 Period of Grant: Feb. 2010 – Jun. 2012, Amount: \$312,345
- 2010-2011 National Sea Grant College Program (NOAA)
Enhancing Sea Grant's Ability to Help Coastal Communities Adapt to Climate Change
 PI: James G. Wilkins
 Co-PIs: Melissa Trosclair Daigle, **Melanie Gall**, and Charles A. Wilson
 Period of Grant: May 2010 – May 2011, Amount: \$29,999
- 2010 Louisiana Department of Health & Hospitals
H1N1 Program Evaluation
 PI: **Melanie Gall**
 Co-PIs: Brian J. Gerber, Warren Eller
 Period of Grant: Jun. – Jul. 2010, Amount: \$110,567

Internal Grants

- 2018 Arizona State University
 Determinants of Disaster Mass Care Services Production and Impacts

- by Arizona Voluntary Nonprofit Organizations
 PI: Melanie Gall
 Co-PI: Brian Gerber, Robert Ashcraft and James Herbert Williams
 Period of Grant: April-September 2018, Amount: \$50,000
- 2018 Arizona State University
 Determinants of Disaster Mass Care Services Production and Impacts
 by Arizona Voluntary Nonprofit Organizations
 PI: Melanie Gall
 Co-PI: Brian Gerber
 Period of Grant: May-September 2018, Amount: \$7,987
- 2015-2016 University of South Carolina
Indirect Costs of School Closures during the 2015 Flash Floods
 PI: **Melanie Gall**
 Co-PIs: Tamara Sheldon and Larianne Collins
 Period of Grant: Oct 2015 – May 2016, Amount: \$28,549
- 2015-2016 University of South Carolina
Leveraging Perishable Impact Data into Long-Term Recovery Forecasting
 PI: Christopher Emrich
 Co-PIs: **Melanie Gall** and Nathan Hunyh
 Period of Grant: Oct 2015 – May 2016, Amount: \$26,550
- 2015 University of South Carolina
Feasibility of Automated Hurricane Damage Detection using Object-Based Image Analysis
 PI: **Melanie Gall**
 Period of Grant: Mar. – Aug. 2015, Amount: \$8,969
- 2011-2012 Coastal Sustainability Studio, Louisiana State University
Flood Depths, Building Codes, and Community Sustainability
 PI: Carol Friedland
 Co-PIs: Meredith Sattler, **Melanie Gall**, and Lynne Carter
 Period of Grant: Aug. 2011 - Aug. 2012, Amount: \$21,000

Teaching Grants

- 2015 University of South Carolina
 Hazards Analysis and Planning (GEOG535)—Distributed Learning Course Development Grant
 PI: Christopher T. Emrich
 Co-PI: **Melanie Gall**
 Period of Grant: May—August 2015, Amount: \$7,825
- 2009-2010 Department of Homeland Security (Sub-award from Jackson State University)
 Disaster Science and Management Education Program in NDCIEM
 PI: Patrick Hesp
 Senior Personnel: **Melanie Gall**
 Period of Grant: Jun. 2009 – Aug. 2010, Amount: \$150,486
- TEACHING** Arizona State University
 CPP 570 Geographic Information Systems (GIS) and Analysis (new online course)
 CPP 560 Emergency Services Operations, Analysis, and Planning (co-taught, new online course)
 CPP 511 Hazard Mitigation Planning (new online, solutions-based course)
 CRD 590 Conference and Reading
 CPM 3.1 Risk Management (Certified Public Manager program) Jan 9, May 30, Nov 6

University of South Carolina
 GEOG 330 The Geography of Disasters (new online course)
 GEOG 535 Hazard Analysis and Planning (new flipped, service-learning course)
 Portland State University
 PA 410/510 Earth Sciences for Emergency Managers (new course/flipped classroom)
 Louisiana State University
 DSM 2000 Hazards, Disaster, and the Environment (new, online course)
 ENVS 4262 Environmental Hazards Analysis (new service-learning course)
 Claflin University
 HSSC 391 Social Statistics
 SOCI 399 Social Dynamics of Disasters (new course)
 PLJS 399 Environmental Justice (new course)

**STUDENT
 ADVISING**

Arizona State University
 2021 Saha Seyedeh Derakhshan, PhD committee member (University of South Carolina, external committee member)
 2018 Marena Sampson, MS committee member
 University of South Carolina
 2015 Khai Hoan Nguyen, MS committee member
 Louisiana State University
 2014 Emily Powell, Geography, PhD committee member
 2013 T. Andrew Joyner, Geography, PhD committee member
 2012 Henrike Brecht, Geography, PhD committee member
 2012 Chelsea Core, Geography, MS committee member
 2012 Steven Ward, Geography, PhD committee member
 2011 Katherine Bowers, Environmental Sciences, MS committee member
 2010 Devyani Kar, Oceanography and Coastal Sciences, PhD committee member

PRESENTATIONS

- 2019 Mostafiz R. B., Friedland C. J., Rohli R. V., Gall M., Gilliland J. M.. *Assessing Risk of Atmospheric Natural Hazards at the Census Block Level*. 115th Annual Conference of American Association of Geographers, Washington, DC, April 2019.
- 2018 *SHELDUS Briefing*. Pima County Multi-Jurisdictional Hazard Mitigation Stakeholder Workshop, October 11, Tucson, AZ.
- 2018 *SHELDUS Briefing*. Sub-Committee on Disaster Reduction (National Science and Technology Council Committee on Environment, Natural Resources, and Sustainability), November 1, Webinar.
- 2017 *Disasters and Vulnerability*. Mandela Washington Fellowship, July 27, 2017, Phoenix, AZ.
- 2017 *Data integration and challenges: what is needed for effective communication to stakeholders*. NAS/Gulf Research Program Opportunity Analysis Meeting on Tracking Community Resilience, February 15-16, Washington, DC.
- 2016 *Disaster response, public safety, and community: The hidden costs of school closures*. SC Flood Conference, November 18, Columbia, SC.
- 2016 Keynote Lecture at GI_Forum Special Session on *Integrated Disaster Risk Research: Challenges and Benefits*, AGIT 2016, July, Salzburg, Austria.
- 2016 *Disaster Loss Data in the United States. Risk Information Management, Risk Models, and Applications* (RIMMA2016 organized by CODATA Germany), June 27-29, Berlin, Germany.
- 2016 *Implementing IRDR's Peril Classification in SHELDUS*. NOAA's 14th Annual Climate Prediction Applications Science Workshop, March 23, Burlington, VT.
- 2015 *Flood Insurance in Coastal Louisiana: Savior or Villain?* Temple University, November 2, Philadelphia, PA.

- 2015 *Exploring the potential of geocoding the impact of disasters: The experience of global and national databases* presented by Debarati Guha-Sapir, European Geosciences Union, April 12-17, Vienna, Austria.
- 2014 *SHELDUS*, EM-DAT Technical Advisory Group Meeting University, Washington D.C., December 8-10.
- 2014 *Hazard Mitigation Planning and the Use of HAZUS-MH in the United States*. UNIGIS online “u_Lectures”, February 26, Salzburg, Austria.
- 2013 *Loss Data in the United States*. Workshop on International Disaster Loss Data Recording: Where are we going? European Commission, Directorate General for Humanitarian Aid and Civil Protection, November 15, Brussels, Belgium.
- 2013 *What are Hazard Mitigation Plans and How to Include Adaptation?* Natural Hazard Mitigation Association Practitioners Symposium, July 16-17, Broomfield, CO.
- 2013 *Advancing Disaster Resistant University Planning beyond the Basic Requirements*. Disaster Resistant University Workshop, Univ. of New Orleans, CHART, March 20-22, New Orleans, LA.
- 2013 *Disaster Losses are not as Explicit as Temperature Change*. United Nations University Technical Workshop, Perspectives on Loss and Damage: Society, Climate Change, and Decision-Making, February 25-27, Bonn, Germany.
- 2012 *NFIP Reform Suggestions from the Field*, 36th Annual Conference of the Association of State Floodplain Managers, May 20-26, San Antonio, TX.
- 2012 *Assessing the Effects of Evacuee Hosting on Local Service Provision*, 108th Annual Meeting of the Association of American Geographers, February 24-28, New York, NY.
- 2012 *Flood Insurance: Love it or hate it*. NOAA Social Coast Forum – Social Science for Coastal Decision Making, Feb. 15-16, Charleston, SC.
- 2011 *Animal welfare in post-earthquake Port-au-Prince, Haiti*, 36th Annual Hazards Research and Application Workshop, July 12, Broomfield, CO.
- 2011 *Dogs, Cats and GPS: Implementing an Animal Survey in Post-earthquake Port-au-Prince, Haiti*, 107th Ann. Mtg. of the Assoc. of Amer. Geogr., Apr. 12-16, Seattle, WA.
- 2011 *Research Collaborations with Voluntary Non-profits in Post-Disaster Environments*. Workshop Non-profit Leadership on Emergencies and Disasters: Understanding Governance Issues in Community Relief and Recovery Efforts University of Colorado, Mar. 9, Denver, CO.
- 2011 *Combining Hazard Mitigation Planning with Service-learning*, Disaster Resistant University Workshop, Univ. of New Orleans CHART, Feb. 16-18, New Orleans, LA.
- 2010 *Vulnerability Assessments: Are our methods good enough?* Spatial Assessment and Analysis of Vulnerability Workshop, Jul. 6-7, Salzburg, Austria.
- 2009 *How GIS mapping can aid your Non-profit*, R. Liner and M. Gall, Louisiana Voluntary Organizations Active in Disaster (VOAD) Training Day, May 29, Lafayette, LA.
- 2009 *Coastal hazards & inland flood risk: non-structural controls*, Flood Protection and Ecosystem Restoration Conference, Jan. 22, Baton Rouge, LA.
- 2008 *Hurricane Katrina Storm Surge Delineation*, G. Melton, M. Gall, J. T. Mitchell, and S. L. Cutter, National Conference on Geography Education, Oct. 9-12, Dearborn, MI.
- 2008 *Is Vulnerability to Natural Hazards Measurable?* Department of Geography & Anthropology, Louisiana State University, Oct. 8, Baton Rouge, LA.
- 2007 *U.S. Hazardscape & Implications for the Corps: Trends and Implications*, S. L. Cutter and M. Gall. Provocation Session of the U.S. Army Corps of Engineers, Oct. 9, Washington, D.C.
- 2007 *The Geography of Disaster Losses*, S. L. Cutter and M. Gall. National Climatic Data Center, Jul. 17, Asheville, NC.
- 2007 *Social Vulnerability Indices to Natural Hazards*, 103rd Ann. Mtg. of the Assoc. of Amer. Geogr., Apr. 17-21, San Francisco, CA.
- 2006 *Social Vulnerability Indices: Theoretical exercises or invaluable assessment tools?* First Summer Academy on Social Vulnerability of UNU-EHS and MunichRe Foundation, Jul. 23-29, Munich, Germany.

- The United Nation's Disaster Risk Index: A theoretical exercise or an invaluable vulnerability assessment tool?* 102nd Ann. Mtg. of the Assoc. of Amer. Geogr., Mar. 7-11, 2006, Chicago, IL.
- 2005 *Predicted versus observed social vulnerability of coastal residents: Hurricane Katrina impacts in Mississippi and Alabama.* Cutter, S. L., J. T. Mitchell, B. J. Boruff, C. T. Emrich, M. Gall, M. C. Schmidlein, C. Burton, G. Melton. Department of Geography, University of South Carolina, Nov. 10, Columbia, SC.
- 2004 *Vulnerability Reduction in Mozambique: The unused Potential of Emergency Shelters,* 100th Ann. Mtg. of the Assoc. of Amer. Geogr., Mar. 14-19, Philadelphia, PA.
- 2003 *Modeling 100-year Flood Risks in South Carolina,* 28th Annual Hazards Research and Application Workshop, Jul. 13-16, Boulder, CO.
- 2003 *Evaluation of flood risks in two districts of the Búzi River Basin, Mozambique,* Vulnerability and Risk Assessments Workshop, Jun. 3-5, Piura (Peru), organized by Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ).
- 2001 *Impactos das cheias 2000: Results of the Búzi River Basin,* Catholic University of Mozambique, Aug. 8, Beira, Mozambique.
- 2001 *Nach der Katastrophe ist vor der Katastrophe: GIS und Fernerkundung im Desastermanagement in Mosambik,* GIS Day 2001, Nov. 14, Salzburg, Austria.

PROFESSIONAL ACTIVITIES & SERVICE

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|------------------------------|--------------|---|
| SCIENTIFIC COMMITTEES | 2017-2018 | Member, Committee for Measuring Community Resilience, National Academies of Sciences |
| | 2017-present | Member, World Meteorological Organization HIWeather Project; Impacts, Vulnerability & Risk Task Team (IVR-TT) |
| | 2013-2016 | Integrated Research on Disaster Risk, ex officio member of DATA working group (IRDR) |
| | 2012-2014 | Hazard Mitigation and Climate Adaptation Committee, Natural Hazard Mitigation Association |
| COMMUNITY SERVICE | 2019 | Member, Technical Advisory Group, Environmental Public Health Tracking Program, Arizona Department of Health Services |
| | 2018 | Development and Maintenance of web-based map for Florida VOADs (Hurricane Michael) |
| | 2018 | City Group Member (Phoenix), UREx Sustainability Research Network |
| | 2018 | GIS support for City of Phoenix, ESF#5, National Mass Care Exercise (May 21) |
| | 2018-present | Reviewer, Gilbert F. White Thesis/Dissertation Award, Specialty Group "Hazards, Risks, and Disasters", American Association of Geographer |
| | 2017-2018 | Planning Committee, Arizona State Hazard Mitigation Plan |
| | 2017 | American Geophysical Union (AGU) OSPA Session Mentor |
| | 2017 | Development and Maintenance of web-based map for Florida VOADs (Hurricane Irma) |
| | 2017 | Social Vulnerability and Resilience Working Group, National Risk Index |
| | 2016-2017 | SESYNC Pursuit Project: Meta-Analysis of Climate Change Vulnerability Mapping Studies: Improving Methods and Map Outputs; PI: Alex de Sherbinin |
| | 2010 | Geospatial analysis support for the International Fund for Animal Welfare and Animal Relief Coalition in Haiti |
| | 2008 | GIS support during Hurricane Gustav for East Baton Rouge Parish EOC, September 1-4. |
| | 2007 | Beta-tester for HAZUS-MH MR3 |
| PROPOSAL REVIEWER | | Arizona Department of Emergency and Military Affairs (2017-present) |
| | | National Science Foundation (2010, 2012, 2014) |
| PAST 5 YEARS | | U.S. Department of Homeland Security (2012) |
| | | U.S. Department of Education (2011, 2013-2016) |

Estonian Research Council (2013)
 Leibniz Association (2014)
 European Commission Joint Programming Initiative on Cultural Heritage (2018)
 Mississippi-Alabama Sea Grant (2014-present)
 Louisiana Sea Grant (2014)
 New Jersey Sea Grant (2014)
 Oregon Sea Grant (2013)
 Wisconsin Sea Grant (2015)

MANUSCRIPTS *Annals of the American Association of Geographers* (2018)
REVIEWED *Applied Geography* (2012-2013)
PAST 5 YEARS *Arabian Journal of Geosciences* (2013)
Cartography & Geographic Information Science (2008-2016)
Climate Risk Management (2018)
Climatic Change (2018)
Computers, Environment, and Urban Systems (2015, 2018)
Environmental Impact Assessment (2015)
Environmental Monitoring and Assessment (2012-2013)
Environmental Science & Policy (2012, 2016)
Geosciences (2017-present)
Global Environmental Change (2009, 2016)
International Journal of Disaster Risk Reduction (2012-2016)
International Journal of Health Geographics (2015)
ISPRS International Journal of Geo-Information (2015, 2017, 2018)
Journal of Cost Analysis and Parametrics (2015)
Journal of the Urban and Regional Information Systems Association, URISA (2014)
Landscape and Urban Planning (2015)
Malaria Journal (2014)
Nature Energy (2018)
Natural Hazards (2006-2017)
Natural Hazards and Earth Systems Sciences (2016-present)
Natural Hazards Review (2004 to present, Guest Editor 2008 to present)
Nature Sustainability (2018)
PLOS Currents (2016-2017)
Regional Environmental Change (2018)
Risk Analysis (2016)
Southeastern Geographer (2018)
Sustainability (2015-2016)
The Professional Geographer (2007-2016)
Transactions in GIS (2015)
Weather, Climate and Society (2018)

BOOK REVIEWER Routledge (2018)
 Oxford University Press (2017)
 Elsevier (2012)
 Earthscan Ltd. (2009)

UNIVERSITY/ 2019-present Advisor, Emergency Management Student Association (EMSA)
DEPARTMENTAL 2018-2019 Member, Innovation Collaboratory, Next-Generation Learning Environments
SERVICE workstream, Arizona State University
 2018 Exhibitor, Undergraduate Student Research Fair, College of Public Service &
 Community Solutions, Arizona State University

- 2018 Session Moderator, PhD Research Conference, College of Public Service & Community Solutions, Arizona State University
- 2017 Judge, Cybersecurity Student Challenge, Arizona State University
- 2017 Judge, Undergraduate Research Symposium, College of Public Service & Community Solutions, Arizona State University
- 2016 ASPIRE proposal reviewer, University of South Carolina
- 2015-2016 Member, ad-hoc Senate Welfare Committee Non-Tenure Track Faculty, University of South Carolina
- 2015-2016 Member, Steering Committee of SC Floods Initiative by Vice President for Research
- 2009-2012 Louisiana Sea Grant EDEN delegate (Extension Disaster Education Network)
- 2010-2011 LSU Dept. of Geography & Anthropology speaker's committee
- CONTRIBUTIONS TO WORKSHOPS AND MEETINGS**
- 2018 Organizer, *The United States of Disaster Guestimates* (part of Hazards and Disasters Xchange Collaboratory Series), November 16, Tempe, AZ.
- 2018 Organizer, *How would Arizona respond to a natural disaster?* (part of Hazards and Disasters Xchange Collaboratory Series), October 18, Phoenix, AZ.
<https://asunow.asu.edu/20181018-arizona-impact-how-would-arizona-respond-natural-disaster>
- 2017 Session: Keeping Count: Deaths, damage, and dollars lost from disasters. July 9-12, 2017, Natural Hazards Workshop, Broomfield, CO. (invited panel member)
- 2016 co-Organizer "INQUIMUS 2016: Spatial and temporal dynamics of risk and vulnerability", September 21-23, Salzburg, Austria.
- 2012 Organizer "Building a Resilient Louisiana: Hazard-Resistant Design and Construction" Workshop, May 15-16, Baton Rouge, LA.
- 2012 Facilitator, Munich Re Foundation Summer Academy "From Social Vulnerability to Resilience: Measuring Progress toward Disaster Risk Reduction", Hohenkammer, Germany.
- 2011 Reviewer for Spatial Assessment and Analysis of Vulnerability Workshop, July 4-6, University of Salzburg, Austria
- 2010 *Disasters in Review* panel member, 107th Ann. Mtg. of the Assoc. of Amer. Geogr., Apr. 12-16, Seattle, WA.
- 2010 Scientific committee member, Spatial Assessment and Analysis of Vulnerability Workshop, July 6-7, University of Salzburg, Austria.
- 2009 Panel moderator for the session "Non-Structural Controls" at the Flood Protection and Ecosystem Restoration Conference, January 22-23, Baton Rouge, LA.
- 2008 Hurricane Gustav Evacuation & Shelter Hot Wash for Louisiana Governor's Office of Homeland Security and Emergency Preparedness, November 13-14.
- 2006 Participant in First Summer Academy on Social Vulnerability "Global Water Hotspots", organized by UNU-EHS and MunichRe Foundation, July 23-29, Munich, Germany.
- FIELD WORK**
- 2018 National Mass Care Exercise, Phoenix, AZ, May 21-24
- 2015-2016 Georeferenced videography of flash flood recovery, Columbia, SC
- 2013 Post-Sandy recovery surveys, New Jersey, Oct. 13-17
- 2011 Mississippi River flooding/Morganza Spillway surveys
- 2010-2011 Flood insurance surveys in 5 coastal Louisiana parishes
- 2010 Post-Earthquake Animal Survey with the International Fund for Animal Welfare, September 13-19, Port-au-Prince, Haiti
- 2005 – 2008 7 field trips for post-Katrina recovery surveys of Mississippi coast
- 2001 Flood impact assessment, June 11-18, Búzi River Basin, Mozambique.

PROFESSIONAL CERTIFICATES AND TRAINING Certified Floodplain Manager (CFM), Association of State Floodplain Managers (since 2012)
 FEMA Emergency Management Institute Certificates:
 E172 (HAZUS-MH for Floods), 2012
 E296 (Application of HAZUS-MH for Risk Assessment), 2012
 FEMA Independent Study Certificates:
 IS-22 Are you ready? An in-depth guide to citizen preparedness, 2010
 IS-42 Social Media in Emergency Management, 2013
 IS-100.a Introduction to the Incident Command System, 2008
 IS-200.a ICS for Single Resources and Initial Action Incidents, 2008
 IS-242.a Effective Communication, 2013
 IS-271.a Anticipating Hazardous Weather and Community Risk, 2013
 IS-328 Plan Review for Local Mitigation Plans, 2014
 IS-386 Introduction to Residential Coastal Construction, 2015
 IS-393.a Introduction to Hazard Mitigation, 2011
 IS-700 National Incident Management System, 2008
 IS-800.b Introduction to the National Response Framework, 2008
 IS-805 Emergency Support Function #5 – Emergency Management, 2008
 IS-922 GIS and Emergency Management, 2017
 Academic Training:
 Master Class for Online Teaching, Arizona State University, 2017
 Effective Online Instruction, University of South Carolina, 2014
 Service Learning, Louisiana State University, 2009

CONSULTING 3RNI Disaster Planning Evaluation for Feeding America (2017-2018)

TECHNICAL SKILLS Geospatial products: ERDAS Imagine, IDRISI, ArcGIS, Google Earth
 Hazard and impact modeling software: HAZUS-MH, HEC-GeoHMS, SFM 3.3, FEMA BCA
 Statistical software: SPSS, SimLab, GeoDa, NAIAD
 Qualitative software: NVivo, Tableau
 Programming languages: HTML
 Course management systems: Canvas, Blackboard, Moodle, and D2L
 Languages: English, German

MEMBERSHIPS & AFFILIATIONS Arizona Emergency Services Association
 Association of American Geographers
 Society for Risk Analysis
 Association of State Floodplain Managers
 American Planning Association
 Natural Hazard Mitigation Association
 Society for Decision Making under Deep Uncertainty (DMDU)
 Humanitarian Practice Network
 Comprehensive Emergency Management Research (CEMR) Network
 Crisis Mappers Net
 Arbeitskreis Naturgefahren und Naturrisiken (Deutsche Gesellschaft für Geographie)