

Courtney M. Thompson

Curriculum Vitae

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Department of Geography
Texas A&M University, MS 3147
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EDUCATION

2017 Ph.D. in Geography, University of Idaho
2012 M.S. in Geography, University of Idaho
2010 B.S. in Geography, New Mexico State University

PROFESSIONAL APPOINTMENTS/EMPLOYMENT

2017-present Assistant Professor, Texas A&M University, College Station, TX

PUBLICATIONS

**Indicates student author*

Refereed Journal Articles

2019

*Karaye, I., **Thompson, C. M.**, Perez Patron, M., Taylor, N., Horney, J. A. *In press*. Under review at *Risk Analysis*. Estimation of evacuation shelter deficits in the Houston-Galveston Metropolitan Statistical Area of Texas.

Thompson, C. M., Dezzani, R. J., & Radil, S.M. (2019). Modeling multiscalar influences on natural hazards vulnerability: a case study of coastal hazards in Sarasota County, Florida. *GeoJournal*. doi: <https://doi.org/10.1007/s10708-019-10070-w>

* Karaye, I. M., Ross, A. D., Perez-Patron, M., **Thompson, C. M.**, Taylor, N., & Horney, J. A. (2019). Factors associated with self-reported mental health of residents exposed to Hurricane Harvey. *Progress in Disaster Science*, 2, 100016, doi: <https://doi.org/10.1016/j.pdisas.2019.100016> .

*Karaye, I., **Thompson, C. M.**, Horney, J. A. (2019). Evacuation shelter deficits for socially vulnerable Texas residents during Hurricane Harvey. *Health Services Research and Managerial Epidemiology*. doi: <https://doi.org/10.1177/2333392819848885>

2016

Thompson, C. M., Frazier, T. G. & Vachon, M. (2016). Opportunities and Constraints to Rural HAZMAT Risk Reduction. *Journal of Homeland Security and Emergency Management*, 13(1), 51–75.

2014

Frazier, T. G., **Thompson, C. M.**, & Dezzani, R. J. (2014). A framework for the development of the SERV model: A Spatially Explicit Resilience-Vulnerability model. *Applied Geography*, 51(3), 158-172.

Thompson, C. M., & Frazier, T. G. (2014). Deterministic and probabilistic flood modeling for contemporary and future coastal and inland precipitation inundation. *Applied Geography*, 50(0), 1-14.

2013

Frazier, T. G., **Thompson, C. M.**, Dezzani, R. J., & Butsick, D. (2013). Spatial and temporal quantification of resilience at the community scale. *Applied Geography*, 42(0), 95-107.

Frazier, T. G., Walker, M. H., Kumari, A., & **Thompson, C. M.** (2013). Opportunities and constraints to hazard mitigation planning. *Applied Geography*. 40(0), 52-60.

Refereed Conference Proceedings

2013

Frazier, T. G., **Thompson, C. M.**, & Dezzani, R. J. (2013). Development of a Spatially Explicit Vulnerability-Resilience Model for Community Level Hazard Mitigation Enhancement. In C. A. Brebbia (Ed.), *Disaster management and human health risk III: reducing risk, improving outcomes* (pp. 13-24). Southampton: WIT Press.

Book Chapters

2013

Frazier, T. & **Thompson, C. M.** (2013). Coastal Planning Policies in Developed Countries. *Climate Change: An Encyclopedia of Science and History*. Ed. Brian Black. Vol. 1. Santa Barbara, CA: ABC-CLIO.

Manuscripts in Submission at Refereed Journals

*Karaye, I., Taylor, N., Perez Patron, M., **Thompson, C. M.**, Horney, J. A. Under review at *Natural Hazards Review*. Factors associated with hurricane evacuation: A statistical meta-analysis, 1999 – 2017. (submitted 4/19/19; revised 10/02/2019).

Thompson, C. M. & Dezzani, R. J. Under review at *Journal of Risk Research*. Examining Relationships between Traditional Vulnerability Data Proxies and Hurricane Risk Perception Indicators. (submitted 10/28/19)

Reports and Non-Refereed Publications

2019

Thompson, C. M. & Bierling, D. (2019). Hazmat Incident Risks and Response Capabilities: Texas Fire Department Survey Results. Final Report for the Hazardous Materials Emergency Preparedness (HMEP) Grant Program, administered by the Texas Division of Emergency Management (TDEM).

2017

Thompson, C. M. (2017). Enhancing Natural Hazards and Vulnerability/Resilience Studies Using Social Theory and Spatial Statistics. Ph.D. Dissertation, University of Idaho. 214pp.

2015

Frazier, T. G. & **Thompson, C. M.** (2015). Vulnerability. In Sarasota County Post - Disaster Redevelopment Plan (PDRP)

2012

Thompson, C. M. (2012). Development of a Probabilistic Storm Surge and Inland Precipitation Model and a Theoretical Framework for Vulnerability and Resilience Quantification for Coastal Communities. M.S. Thesis, University of Idaho. 190pp.

2011

Frazier, T. G., **Thompson, C. M.**, & Vachon, M. (2011). North Central Idaho Hazardous Materials Flow Study. Final Report for Clearwater County Emergency Management.

HONORS AND AWARDS

- 2019 Fellow, Enabling the Next Generation of Hazards and Disasters Researchers Fellowship Program
- 2018 Faculty Fellow, Center for Health Systems and Design, Texas A&M University, College Station, TX
- 2018 Faculty Fellow, Institute for Sustainable Communities, Texas A&M University, College Station, TX
- 2017 Outstanding Doctoral Student Research and Creative Activity Award, University of Idaho
- 2016 Esri User Conference Student Assistantship, Esri, *June 2016*
- 2013 Gilbert F. White Thesis/Dissertation Award, AAG Hazards Specialty Group
- 2013 College of Science Diane Haynes Memorial Award, University of Idaho
- 2013 Outstanding Masters Student Research and Creative Activity Award, University of Idaho

GRANTS AND FELLOWSHIPS

2020 - 2022	NOAA Texas SeaGrant (CoPI)	\$299,995
2019 - 2021	Texas A&M Triads for Transformation (T3) program (PI)	\$30,000
2018 - 2020	National Academies Gulf Research Program - Early-Career Research Fellowship (PI)	\$76,000
2014 - 2017	National Science Foundation - Doctoral Dissertation Research Grant: Development of a Spatially Explicit Resilience and Vulnerability Model Through Integration of Modeling and Stakeholder Perspectives (Co-PI)	\$15,829
2015	University of Idaho - Graduate & Professional Student Association (GPSA) Travel Grant	\$700
2014	University of Idaho - Graduate & Professional Student Association (GPSA) Travel Grant	\$557
2012	University of Idaho - Student Grant Program (SGP) Dissemination Grant	\$1,350
2011	University of Idaho - Graduate & Professional Student Association (GPSA) Travel Grant	\$535

CONFERENCE ACTIVITY/PARTICIPATION

**Indicates student author*

Panels/Sessions Organized

2018

Thompson, C. M., Fang, N., Bedient, P., Nittrouer, J. A. Session Chair and Co-Organizer. "Further Research into the Cause and Impacts of the 2017 Hurricanes with Applications of Flood Warning and Inundation Mapping During the Storms," American Geophysical Union Meeting, Washington D.C.

2017

Cervone, G., Nittrouer, J. A., **Thompson, C. M.**, & Wyborn, L. Session Co-Chair and Co-Organizer. "Late-Breaking Session on Hurricanes Harvey and Irma," American Geophysical Union Meeting, New Orleans, Louisiana

2013

Frazier, T., **Thompson, C. M.** Session Organizer. "Improving Local and Regional Hazard Mitigation Planning," Association of American Geographers Annual Meeting, Los Angeles, California

Papers Presented

2018

Thompson, C. M., R. J. Dezzani. "Hierarchical Modeling of Social Vulnerability Using Spatial Statistics and GIS," Association of American Geographers Annual Meeting, New Orleans, Louisiana

2017

Thompson, C. M., R. J. Dezzani. "Examining the Influence of Hurricane Risk Perception and Structuration on Coastal Hazards Vulnerability," Association of American Geographers Annual Meeting, Boston, Massachusetts

2015

Thompson, C. M., T. Frazier. "Development of a probabilistic storm surge inundation model for more precise sub-county flood risk modeling," Association of American Geographers Annual Meeting, Chicago, Illinois

2014

Thompson, C. M., T. Frazier. "EPSCoR Project tasks – Vulnerability Working Group," Annual EPSCoR Meeting, Coeur D'Alene, Idaho

Thompson, C. M., T. Frazier. "Hurricane Hazard Mitigation Strategies for Social Vulnerability Reduction," Association of American Geographers Annual Meeting, Tampa, Florida

2013

Thompson, C. M., T. Frazier, R. Dezzani. "Development of a Spatially Explicit Vulnerability-Resilience Model for Community Level Hazard Mitigation Enhancement", Oral presentation at the International Conference on Disaster, Management on Human Health, A Coruña, Spain

Thompson, C. M., T. Frazier, R. Dezzani. "Development of a Probabilistic Storm Surge & Inland Precipitation Model & a Theoretical Framework for Vulnerability & Resilience Quantification for Coastal Communities", Oral presentation at the Association of American Geographers Annual Meeting, Los Angeles, California

2011

Thompson, C. M., T. Frazier, M. Walker, S. Fricke. "Incorporating social vulnerability into traditional U.S. hazard mitigation plans: A case study of Shoshone County, Idaho", Oral presentation at the Association of American Geographers Annual Meeting, Seattle, Washington

Posters Presented

2019

- *Edey, D., **Thompson, C. M.**, Hammond, T., Cherian, J. “Online Local Natural Hazards Education for Young Adults: Assessing Program Efficacy and Changes in Risk Perception,” Resilience Rising: Research and Practice on Harvey and Hazards of the Future, College Station, TX
- *Karaye, I.M., **Thompson, C. M.**, Perez-Patron, M., Taylor, N., Horney, J.A. “Estimating evacuation shelter deficits in the Houston-Galveston Metropolitan Area,” Natural Hazards Center Annual Workshop, Broomfield, Colorado
- *Edey, D., **Thompson, C. M.**, Hammond, T., Cherian, J. “Online Local Environment Hazards Education for Young Adults Using a Social Media Platform,” Association of American Geographers Annual Meeting, Washington D. C.
- *Edey, D., **Thompson, C. M.**, Hammond, T., Cornwell, A., Cherian, J. “Online Local Environment Hazards Education for Young Adults Using a Social Media Platform,” Texas A&M Student Research Week (SRW), College Station, TX

2014

- Thompson, C. M.**, T. Frazier. “Impact of Risk Perception on Risk Communication and Community Resilience Enhancement,” American Geophysical Union Meeting, San Francisco, California

2012

- Thompson, C. M.**, T. Frazier. “Development of a probabilistic coastal hazards model for more effective hazard mitigation at the community scale: A case study for Sarasota County, Florida”, Poster presentation at the Society for Risk Analysis (SRA) World Congress on Risk 2012, Sydney, Australia
- Thompson, C. M.**, T. Frazier. “Development of a probabilistic coastal hazards model that couples storm surge and runoff from inland precipitation: A case study for Sarasota County, Florida,” Montana Association of Geographic Information Professionals (MAGIP) Intermountain GIS Conference, Kalispell, Montana

2011

- Thompson, C. M.**, T. Frazier, M. Walker, S. Fricke. “Incorporating social vulnerability into traditional U.S. hazard mitigation plans: A case study of Shoshone County, Idaho,” 4th Annual EPSCoR Western Consortium Tri-State Meeting, Albuquerque, New Mexico

Workshops

2018

- Hered, K. & **Thompson, C. M.** “Stopping the Leak: Consulting Gig Scientists to Plug the “Leaky Pipeline” and Increase Community Access to Experts,” Coastlines and People (CoPe) Scoping Workshop, Chicago, IL
- Plank, T., B. Reece, K. Heried, **Thompson, C. M.** “Catastrophic Geo-Events: Instrument Arrays, Forecasting and Response,” Coastlines and People (CoPe) Scoping Workshop, Chicago, IL

CAMPUS OR DEPARTMENTAL TALKS

2019

- Thompson, C. M.** “Enhancing Natural Hazards & Vulnerability/Resilience Studies,” Bill Anderson Fund 2019 Spring Fellow Workshop, Texas A&M University

2018

Thompson, C. M. “Enhancing Natural Hazards & Vulnerability/Resilience Studies,” CyberGIS REU program weekly seminar, Texas A&M University

2012

Thompson, C. M., T. Frazier. “Development of a probabilistic storm surge & inland precipitation model & a theoretical framework for vulnerability & resilience quantification for coastal communities,” Department of Geography weekly seminar, University of Idaho

RESEARCH EXPERIENCE

2012-2015 Research Assistant, Department of Geography, University of Idaho, Moscow, ID

2017 GIS Consultant, Moscow Affordable Housing Trust, Moscow, ID

TEACHING EXPERIENCE

Texas A&M University

Natural Hazards (360) (SP19)

Principles in GIS (390) (FA17, SP18, SU18, FA18, FA19)

Applications in GIS (660) (FA17, SP18, FA18, FA19)

Introduction to Human Geography (201) (SP18, FA18, SP19)

University of Idaho

Human Geography (Honors) (165) (SP 2017)

Natural Hazards and Society (411) (Co-instructor SP13, SP16, SP 2017)

Cartographic Design & Geovisualization (390) (FA16)

Special Topics: (404) GIS Data Management (SP16)

GIS Primer (385) (SU11, SU12, FA15)

GIS Primer (385) (online course), University of Idaho (SU14, SU15, FA14, FA15)

STUDENT MENTORING

Thesis Advisor

D. Edey, Geography MS in progress (Texas A&M University), M. Billman, Geography MS in progress (Texas A&M University)

Committee Member

I. Karaye, Epidemiology & Biostatistics PhD completed (Texas A&M University), K. Pandian, Geography PhD in progress (Texas A&M University), J. Park, Geography PhD in progress (Texas A&M University), K. Condina, Geography MS in progress (Texas A&M University), T. Siskind, Geography MS in progress (Texas A&M University), R. Constantini, Communication PhD in progress (Texas A&M University), C. Oswald, Anthropology MS in progress (Texas A&M University)

Undergraduate Student Mentoring

Texas A&M University

M. Moeen (GIST), 2018; A. Amalia (GEOP), 2018; A. Cornwell (ENVS), 2018; G. Fasula (ENGS), 2019; R. Castillo (ENGS), 2019-present; K. Herrin (GEOG), 2019-present; B. Salisbury (GEOG), 2019-

present; C. Tsoucalas (GEOL), 2019-present ; E. Saldana (ENST), 2019-present; R. Joseph (ENST), 2019-present

University of Idaho

C. Tate (GEOG), 2013; D. Matsche (GEOG), 2013; J. Putnam, 2013-2014; K. Baker, Geography, 2014; M. Foushee (GEOG), 2014; O. Guthrie (GEOG), 2014; J. Johnstone (GEOG), 2014; A. Knight (GEOG), 2014; R. Loesch (GEOG), 2014; E. Larson (GEOG), 2014 - 2015

SERVICE TO PROFESSION

Manuscript reviewer for: Frontiers in Environmental Science; The Annals of the American Association of Geographers; Applied Geography, Geosciences, Society & Natural Resources, Socio-Economic Planning Sciences

Panel reviewer for: NOAA – Office of Education, National Science Foundation

Ad Hoc reviewer for: National Science Foundation

DEPARTMENTAL/UNIVERSITY SERVICE

2019

Member, Geography Graduate Committee

Faculty Sponsor, Undergraduate and Graduate Women in Geosciences

2018

Member, GIS Faculty Search Committee

Member, Geography Colloquium Committee

2017

Member, Geography Colloquium Committee

LANGUAGES

English - Native

Spanish – Excellent

PROFESSIONAL ORGANIZATIONS

American Association of Geographers (AAG)

AAG Hazards, Risks & Disasters Specialty Group

AAG Spatial Analysis and Modeling

American Geophysical Union (AGU)