

JONI DOWNS FIRAT

School of Geosciences · University of South Florida
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I. EDUCATION

- 2008 Ph.D. Geography, Florida State University
 Dissertation: Network analysis of fish and wildlife space-use patterns
- 2004 M.S. Natural Resources, The Ohio State University
 Thesis: Population status and habitat utilization of breeding greater sandhill cranes in Ohio
- 2001 B.S. Natural Resources (Honors), The Ohio State University
 Thesis: Vertical migration of the freshwater mussel *Pyganodon grandis grandis* during late summer and autumn

II. PROFESSIONAL APPOINTMENTS

- 2016— Associate Chair, School of Geosciences, University of South Florida
- 2013— Associate Professor, School of Geosciences, University of South Florida
- 2008—2013 Assistant Professor, Department of Geography, University of South Florida
- 2004—2008 Teaching Assistant, Geography, Florida State University
- 2001—2004 Research Associate, Terrestrial Wildlife Ecology Laboratory, The Ohio State University

III. RESEARCH

A. Interests

My research aims to develop new methods of spatial analysis and modelling that can be broadly applied within GIScience and related fields. Specific statistical and mathematical approaches of interest include: computational movement analysis, agent-based modelling, spatial optimization, and point pattern analysis. Application areas of interest encompass a variety of topics, including wildlife ecology, public health and safety, crime science, and transportation. I am also interested in geovisualization, particularly in how it facilitates spatial analysis and modelling.

B. Grants and Awards

External Grants

- [2] Thomas R. Unnasch (Principal Investigator) and Joni Downs (Co-Investigator). Delineating EEEV over-wintering and early season amplification mechanisms. National Institutes of Health, National Institute of Allergy and Infectious Diseases Program (R56). Award amount: \$342,985. Effective: August 2013—September 2014.
- [1] Joni Downs (Principal Investigator) and Mark W. Horner (co- Principal Investigator). Title: Collaborative Research—Developing a statistical time geography for analyzing animal movements and interactions. National Science Foundation, Geography and Spatial Science & Methodology, Measurement and Statistics Programs. Award amount: \$200,000. Effective: May 2011—April 2015, including one-year extension.

Internal Grants

- [3] Research & Development Grant, 2012, USF College of Arts & Sciences (\$4500).
- [2] Faculty International Travel Grant, 2010, USF Division of Sponsored Research (\$2500).
- [1] New Researcher Grant, 2009, USF Division of Sponsored Research (\$7691).

Awards

- [3] Best Full Paper, 2010, 6th International Conference on Geographic Information Science.
- [2] Dewey Stowers Research Award, 2009, USF Department of Geography (1 course release).
- [1] Best Paper, 2007, Ph.D. Honors Competition, SouthEastern Division of the Association of American Geographers Annual Meeting, Charleston, SC (\$1000)

C. Refereed Journal Articles and Book Chapters

- [39] Rebecca Loraamm, Joni Downs, Robert Alonso Bair, and Daniel Yeh. 2017. Towards food service sustainability in suburban environments by optimally locating shared anaerobic digester units. **Suburban Sustainability** 5 (1): 2.
- [38] Joni Downs, Rebecca Loraamm, James Anderson, Jaqueline Perry, and Jessica Bullock. 2017. Habitat use and behaviours of introduced Muscovy ducks (*Cairina moschata*). **Suburban Sustainability** 5 (1): 1.
- [37] James Anderson, Joni Downs, Rebecca Loraamm. 2017. Agent-based simulation of Muscovy duck movements using observed habitat transition and distance frequencies. **Computers, Environment, and Urban Systems** 61: 49-55.
- [36] Joni Downs. 2016. Mapping sex offender activity spaces relative to crime using time-geographic methods. **Annals of GIS** 22: 141-150.
- [35] Rebecca Loraamm and Joni Downs. 2016. A wildlife movement approach to optimally locate wildlife crossing structures. **International Journal of Geographical Information Science** 30: 74-88.
- [34] Joni Downs, Garrett Hyzer, Eric Marion, Zachary Smith, Patrick Vander Kelen, Thomas Unnasch. 2015. Mapping eastern equine encephalitis virus risk for white-tailed deer in Michigan. **Applied Geography** 64: 66-730
- [33] David S. Lamb, Joni Downs, and Chanyoung Lee. 2015. The network K-function in context: examining the effects of network structure on the network K-function. **Transactions in GIS** 20: 448-460.
- [32] Joni Downs and Mark W. Horner. 2014. Adaptive-velocity time-geographic density estimation for mapping the potential and probable locations of mobile objects. **Environment & Planning B** 41: 1006-1021.
- [31] Joni Downs. 2014. Using potential path trees to map sex offender access to schools. **Applied Spatial Analysis and Policy** 7: 381-394.
- [30] Joni Downs, David Lamb, Garrett Hyzer, Rebecca W. Loraamm., Zachary J. Smith, and Blaire O'Neal. 2014. Quantifying spatio-temporal interactions of animals using probabilistic space-time prisms. **Applied Geography** 55: 1-8.

- [29] Kelsey Roberts, Jennifer Collins, Charles Paxton, Robert Hardy, and Joni Downs. 2014. Weather patterns associated with green turtle hypothermic stunning events in St. Joseph Bay and Mosquito Lagoon, Florida. **Physical Geography** 35:134-150.
- [28] Patrick T. Vander Kelen, Joni Downs, Thomas R. Unnasch, and Lillian M. Stark. 2014. A risk index model for predicting eastern equine encephalitis virus transmission to horses in Florida. **Applied Geography** 48: 79-86.
- [27] Joni Downs, Mark W. Horner, Garrett Hyzer, David Lamb, and Rebecca W. Loraamm. 2014. Voxel-based probabilistic space-time prisms for analysing animal movements and habitat use. **International Journal of Geographical Information Science** 28: 875-890.
- [26] Mark W. Horner and Joni Downs. 2014. Integrating people and place: A density-based measure for assessing accessibility to opportunities. **Journal of Transportation and Land Use** 7: 23-40.
- [25] Joni Downs, Mark W. Horner, James H. Anderson, Rebecca W. Loraamm, Hyun Kim, and Dave Onorato. 2014. Strategically locating wildlife crossing structures for florida panthers using maximal covering approaches. **Transactions in GIS** 18: 46-65.
- [24] Jonathon K. Parker and Joni Downs. 2013. Footprint generation using fuzzy-neighborhood clustering. **GeoInformatica** 17: 285-299.
- [23] Patrick T. Vander Kelen, Joni Downs, Lillian M. Stark, Rebecca W. Loraamm, James H. Anderson and Thomas R. Unnasch. 2012. Spatial epidemiology of eastern equine encephalitis in Florida. **International Journal of Health Geographics** 11: 47.
- [22] Mark W. Horner, Brandon Zook, and Joni Downs. 2012. Where were you? Development of a time-geographic approach for activity destination re-construction. **Computers, Environment, and Urban Systems** 36: 488-499.
- [20] Patrick T. Vander Kelen, Joni Downs, Nathan D. Burkett-Cadena, Christy L. Ottendorfer, Kevin Hill, Steve Sickerman, José Hernandez, Joseph Jinright, Brenda Hunt, John Lusk, Victor Hoover, Keith Armstrong, Robert S. Unnasch, Lillian M. Stark, and Thomas R. Unnasch. 2012. Habitat associations of Eastern Equine Encephalitis transmission in Walton County Florida. **Journal of Medical Entomology** 49: 746-756.
- [19] Joni Downs and Mark W. Horner. Analysing infrequently sampled animal tracking data by incorporating generalized movement trajectories with kernel density estimation. 2012. **Computers, Environment and Urban Systems** 36: 302-310.
- [18] Joni Downs and Mark W. Horner. 2012. Probabilistic potential path trees for visualizing and analyzing vehicle tracking data. **Journal of Transport Geography** 23: 72-80.
- [17] Adeniyi S. Aremu, B.F. Sule, Joni Downs, and James R. Mihelcic. 2012. Framework to determine the optimal number and spatial location of municipal solid waste bins in a developing world urban neighborhood. **Journal of Environmental Engineering**, 138: 645-653.
- [16] Joni Downs, Justin H. Heller, Rebecca Loraamm, Dana Oppenheim-Stein, Cassandra McDaniel, and Dave Onorato. 2012. Accuracy of home range estimators for homogeneous and inhomogeneous point patterns. **Ecological Modelling** 225: 66-73.

- [15] Joni Downs and Mark W. Horner. 2012. Enhancing habitat connectivity in fragmented landscapes: spatial modelling of wildlife crossing structures in transportation networks. **Annals of the Association of American Geographers** 102: 17-34.
- [14] Joni Downs, Mark W. Horner, and Anton D. Tucker. 2011. Time-geographic density estimation for home range analysis. **Annals of GIS**, 17: 163-171.
- [13] Heather Wright-Wendell, Joni Downs, and James Mihelcic. 2011. Assessing equitable access to urban green space: the role of engineered water infrastructure. **Environmental Science & Technology** 45: 6728-6734.
- [12] Jerry Olsen, Joni Downs, Anton D. Tucker, and Susan Trost. 2011. Home range size and territorial calling of southern boobook owls *Ninox novaeseelandiae* in adjacent territories. **Journal of Raptor Research** 45: 136-142.
- [11] Mark W. Horner, Irene Casas, and Joni Downs. 2010. Exploration of a polygon decomposition technique based on the ordinary Voronoi diagram. **Annals of GIS** 16: 223-236.
- [10] Joni Downs. 2010. Time-geographic density estimation for moving point objects. **Lecture Notes in Computer Science** 6292: 16-26.
- [9] Mark W. Horner and Joni Downs. 2010. Optimizing hurricane disaster relief goods distribution: model development and application with respect to planning strategies. **Disasters** 34: 821-844.
- [8] Victor Mesev, Peter Shirlow, and Joni Downs. 2009. The geography of conflict and peace resolution in Belfast, Northern Ireland. **Annals of the Association of American Geographers** 99: 893-903.
- [7] Joni Downs and Mark W. Horner. 2009. A characteristic hull-based home range estimator. **Transactions in GIS** 13: 527-537.
- [6] Mark W. Horner and Joni Downs. 2008. Analysis of the effects of socio-economic status on hurricane disaster relief plans. **Transportation Research Record** 2067:1-10.
- [5] Joni Downs and Mark W. Horner. 2008. Effects of point pattern shape on home range estimates. **Journal of Wildlife Management** 72: 1813-1818.
- [4] Joni Downs, Robert J. Gates, and Alan T. Murray. 2008. Estimating carrying capacity for sandhill cranes using habitat suitability and spatial optimization models. **Ecological Modelling** 214:284-292.
- [3] Joni Downs and Mark W. Horner. 2008. Spatially modelling pathways of migratory birds for nature reserve site selection. **International Journal of Geographical Information Science** 22: 687-702.
- [2] Victor Mesev, Joni Downs, Richard Courtney, Aaron Binns, and Peter Shirlow. 2008. Measuring and mapping conflict-related deaths and segregation: lessons from the Belfast 'Troubles'. In **Geospatial Technologies and Homeland Security: Research Frontiers and Future Challenges**, Daniel Sui, ed., pages 83-101.
- [1] Mark W. Horner and Joni Downs. 2007. Testing a flexible GIS-based network flow model for routing hurricane disaster relief goods. **Transportation Research Record** 2022: 47-54.

D. Refereed Conference Proceedings

- [14] Joni Downs, David Lamb, Garrett Hyzer, Rebecca W. Loraamm., Zachary J. Smith, and Blaire O'Neal. 2014. A Time-Geographic Framework for Computing Spatio-Temporal Interaction Probabilities. Proceedings, GIScience 2014, Vienna, Austria.
- [13] Joni Downs, Mark W. Horner, James Anderson, Rebecca Loraamm, Hyun Kim, and Dave Onorato. 2014. GIS Models for Strategically Locating Wildlife Crossing Structures in Road Networks. Transportation Research Board 2014 Annual Meeting.
- [12] Mark W. Horner and Joni Downs. 2012. A density based accessibility measure for mobile objects. Proceedings, GIScience 2012, Columbus, Ohio.
- [11] Joni Downs, Mark W. Horner, and Garrett Hyzer. 2012. Incorporating uncertainty into time-geographic density estimates. Proceedings, GIScience 2012, Columbus, Ohio.
- [10] Joni Downs and Mark W. Horner. 2011. An adaptive-velocity time-geographic density estimator. Proceedings of the 11th International Conference on GeoComputation, London, UK.
- [9] Mark W. Horner and Joni Downs. 2011. Where were you? A time-geographic approach to activity destination re-construction. Proceedings of the 11th International Conference on GeoComputation, London, UK.
- [8] James D. Downs, Roger A. Williams, and Joni Downs. 2010. The effects of shelterwood harvesting on oak regeneration one and two years after harvest in southern Ohio. Proceedings of the 17th Central Hardwoods Forest Conference, Lexington, Kentucky.
- [7] Mark W. Horner and Joni Downs. 2008. Optimizing hurricane disaster relief goods distribution and transportation: spatial model development, implementation, and application with respect to the Florida Department of Emergency Management Comprehensive Plan. Proceedings of the Transportation Research Board Annual Meeting, Washington, D.C.
- [6] Mark W. Horner and Joni Downs. 2008. An analysis of the effects of socio-economic status on hurricane disaster relief plans. Proceedings of the Transportation Research Board Annual Meeting, Washington, D.C.
- 5] Joni Downs and Mark W. Horner. 2007. Network-based kernel density estimation for home range analysis. Proceedings of the 9th International Conference on GeoComputation, Maynooth, Ireland.
- [4] Joni Downs and Mark W. Horner. 2007. Network-based home range analysis using Delaunay triangulation. Proceedings of the Fourth International Symposium on Voronoi Diagrams in Science and Engineering (ISVD 2007), IEEE Computer Society, pp. 255-259, Pontypridd, Wales, UK.
- [3] Joni Downs and Mark W. Horner. 2007. Characterising linear point patterns. Proceedings of the GIS Research UK Annual Conference (GISRUK 2007), Maynooth, Ireland.
- [2] Mark W. Horner and Joni Downs. 2007. Testing a flexible GIS-based network flow model for routing hurricane disaster relief goods. Proceedings of the Transportation Research Board Annual Meeting, Washington, D.C.
- [1] Joni Downs and Mark W. Horner. 2006. Spatial-temporal network topology for modeling migratory pathways of wetland-dependent birds. Proceedings, GIScience 2006, Münster, Germany.

E. Other Papers Presented at Professional Meetings

- [16] Joni Downs. 2014. Spatial uncertainty in animal tracking data: are we throwing away useful information? GIScience Workshop on Analysis of Movement Data (AMD2016), Montreal, Canada.
- [15] Joni Downs. 2014. Quantifying animal interactions using probabilistic space-time prisms. 2014 Meeting of the Association of American Geographers, Tampa, FL.
- [14] Joni Downs and Mark W. Horner. 2013. Computation of probabilistic space-time prisms. 2013 Meeting of the Association of American Geographers, Los Angeles, CA.
- [13] Joni Downs, Mark W. Horner, and Rebecca Loraamm. 2012. Time-geographic approaches for visualizing and analyzing human-wildlife interactions. Visualization Technologies to Support Research on Human-Environment Interactions, National Socio-Environmental Synthesis Center, Annapolis, Maryland.
- [12] Joni Downs. 2012. Incorporating GPS error into time-geographic density estimates. 2012 Meeting of the Association of American Geographers, New York, NY.
- [11] Joni Downs. 2011. Variable-velocity time-geographic density estimation for moving point objects. 2010 Meeting of the Association of American Geographers, Seattle, WA.
- [10] Joni Downs. 2010. Time-geographic density estimation for moving point objects. 6th International Conference on Geographic Information Science. Zurich, Switzerland.
- [9] Joni Downs. 2010. Refining home range estimates using time geography. 2010 Meeting of the Association of American Geographers, Washington, DC.
- [8] Joni Downs. 2010. Spatial-temporal analysis of animal movements. Space-Time Analysis and Modeling Workshop, ESRI GIS Week 2010, Redlands, CA.
- [7] Joni Downs and Mark W. Horner. 2009. Estimating animal home ranges using characteristic hulls. 2009 Meeting of the Association of American Geographers, Las Vegas, Nevada.
- [6] Joni Downs. 2008. Application of time geography to the analysis of animal locational data. 2008 SouthEastern Division of the Association of American Geographers Annual Meeting, Greensboro, North Carolina.
- [5] Joni Downs. 2008. Network-based kernel density estimation for analysing linear point patterns. 2008 Meeting of the Association of American Geographers, Boston, Massachusetts.
- [4] Joni Downs. 2007. Kernel density estimation for spatial data. 2007 SouthEastern Division of the Association of American Geographers Annual Meeting, Charleston, South Carolina.
- [3] Joni Downs and Mark W. Horner. 2007. The flight leg allocation problem (FLAP) for modeling pathways of migratory birds. 2007 Meeting of the Association of American Geographers, San Francisco, California.
- [2] Joni Downs and Robert J. Gates. 2004. Habitat utilization and suitability for breeding greater sandhill cranes in Ohio. Midwest Fish and Wildlife Conference, Indianapolis, Indiana.

- [1] Joni Downs and Robert J. Gates. 2003. Population status and habitat use by breeding greater Sandhill cranes in Ohio. Ohio Avian Ecology and Conservation Conference, Columbus, Ohio.

F. Non-refereed Publications

- [2] Joni Downs. 2010. Shortest path problems. Entry in the Encyclopedia of Human Geography, edited by Barney Warf et al., Sage Publishers.
- [1] Joni Downs and William J. Mitsch. 2001. Willow and cottonwood development adjacent to planted and unplanted freshwater marshes. Olentangy River Wetland Research Park 2001 Annual Report, p. 49-60.

G. Invited Lectures

- [4] Joni Downs 2010. Time-geographic density estimation for moving point objects—a new home range estimator. Geography Colloquium, University of South Florida.
- [3] Joni Downs. 2009. Geography of conflict and death in Belfast, Northern Ireland. Geography Colloquium, University of South Florida.
- [2] Joni Downs. 2008. GIS methods for wildlife management. Environmental Research Interdisciplinary Colloquium, University of South Florida.
- [1] Joni Downs. 2008. New methods of home range estimation. Department of Biology, University of South Florida.

IV. TEACHING

A. Courses Taught as Instructor

Spatial Data Analysis (undergraduate)
Computer Cartography (undergraduate)
Introductory GIS laboratory (undergraduate)
Geographic Information Systems (graduate)
Environmental Applications of GIS (graduate)
Animal Tracking Applications in GIS (graduate)
Wildlife Ecology (graduate)
Research Methods in Wildlife Ecology (undergraduate)
Forest Ecology and Management (undergraduate/graduate)
Wetland Environments (undergraduate)
Doctoral Professional Development (Graduate)

B. Student Advisory Committees

Ph.D. Dissertation Committees

Abigail Lavallin, Ph.D. (Chair) Geography & Environmental Science and Policy, Active.
Lucy Deba Enomah, Ph.D. (Chair) Geography & Environmental Science and Policy, Active.
Mehrdad Vaziri, Ph.D. (Chair) Geography & Environmental Science and Policy, Active.
Zachary Smith, Ph.D. (Chair) Geography & Environmental Science and Policy, Active.

David Lamb, Ph.D. (Chair) Geography & Environmental Science and Policy, 2017.
Stephanie Powers, Ph.D. (Chair) Geography & Environmental Science and Policy, 2017.
Rebecca Loraamm, Ph.D. (Chair) Geography & Environmental Science and Policy, 2015.

Joseph England, Ph.D. Geography & Environmental Science and Policy, Active.
Rene Baumstark, Ph.D. Geography & Environmental Science and Policy, Active.
Julia Earles, Ph.D. Geography & Environmental Science and Policy, Active.
Bryan Winter, Ph.D. Geography & Environmental Science and Policy, 2017.
Christopher Haggerty. Ph.D. Integrative Biology, 2016.
Julius Anchang, Ph.D. Geography & Environmental Science and Policy, 2016.
Milena Janiec-Grygo, Ph.D. Geography & Environmental Science and Policy, 2016.
Nicole Hutton, Ph.D. Geography & Environmental Science and Policy, 2016.
Nicole Caesar, Ph.D. Geography & Environmental Science and Policy, 2014.
Yilin Zhuang, Ph.D. Environmental Engineering, 2014.
David Roache, Ph.D. Geography & Environmental Science and Policy, Active.
Sandra Garren, Ph.D. Geography & Environmental Science and Policy, 2014.
Jonathon Parker, Ph.D. Computer Science, 2013.
Patrick Vander Kelen, Ph.D. Public Health, 2012.
Weiwei Mo, Ph.D. Environmental Engineering, 2012.
Heather Wright Wendel, Ph.D. Environmental Engineering, 2011.

Master's Thesis Committees

Courtney Buck, M.S. (Chair) Environmental Science and Policy, active
Jacqueline Perry, M.S. (Chair) Environmental Science and Policy, 2017.
Brendan Quinton, M.S. (Chair) Environmental Science and Policy, 2016.
Michael Barr, M.S. (Chair) Environmental Science and Policy, 2014.
Zachary Smith, (Chair) M.S. Environmental Science and Policy, 2014.
Blair O'Neal, (Chair) M.S. Environmental Science and Policy, 2014.
James H. Anderson, Jr., (Chair) M.A. Geography, 2012.
Garrett Hyzer, M.S. (Chair), Environmental Science and Policy, 2012.
Rebecca Loraamm (Chair), M.S. Environmental Science and Policy, 2011.
Corey Leonard-ozan (Chair), M.S. Environmental Science and Policy, 2011.
Justin Heller (Chair), M.S. Environmental Science and Policy, 2011.

Kittiya Harris, M.S. Environmental Science and Policy, 2017.
Jaime Swindasz, M.S. Environmental Science and Policy, 2016.
Steven Ulloa, M.A. Geography, 2015.
Heather Key, M.S. Environmental Science and Policy, 2015.
Oana McKinney, M.A. Geography, 2014.
Brian Sandrock, M.A. Geography, 2014.
Christopher Zuppa, MURP, Urban and Regional Planning. 2014.
Susana Alvarado, M.S. Environmental Science and Policy, 2014.
Kelsey Roberts, M.S. Environmental Science and Policy, 2013.
Irene Rehberger Bescos, M.S. Environmental Science and Policy, 2012.
Melissa Brogle, M.S. Environmental Science and Policy, 2012.
Chloe Delhomme, M.S. Environmental Science and Policy, 2012.
Michael Reyes, M.S. Environmental Science and Policy, 2012.
Lin Ozan, M.S. Environmental Science and Policy, 2011.
Mark Hurst, M.S. Environmental Science and Policy, 2011.
Shannon Ladd, M.S. Environmental Science and Policy, 2010.

Non-Thesis Examining Committees

Meagan Endozo, M.S. (Chair) Environmental Science and Policy, 2017.
Jared Thompson (Chair) M.S. Environmental Science and Policy, 2014.
David Eilers (Chair) M.S. Environmental Science and Policy, 2014.
Lance Knowlton (Chair) M.A. Geography, 2014.
Faye Bronson (Chair) M.A. Geography, 2014.
Juanita Ferrer (Chair) M.S. Environmental Science and Policy, 2014.
Kevin Hug (Chair) M.A. Geography, 2014.
Amanda Harvey (Chair) M.S. Environmental Science and Policy, 2014.
Elizabeth Ciesla (Chair) M.S. Environmental Science and Policy, 2014.
Cuthbert Hutton (Chair) M.S. Environmental Science and Policy, 2014.
Jessica Bullock (Chair) M.S. Environmental Science and Policy, 2014.
Todd Bogner, M.S. Environmental Science and Policy, 2013.
Christopher Cochran, M.S. Environmental Science and Policy, 2012.
Ariana Tatum, M.A. Geography, 2008.

Undergraduate Honors Thesis Committees

Lauren Koos, B.S. Environmental Science and Policy, 2014.
Lyndsey Scofield, B.S. Environmental Science and Policy, 2009.
Elise Paulter, B.S. Environmental Science and Policy, 2009.

V. SERVICE

A. University and College Service

CAS Instructor Promotion Committee, USF, 2015—2017
Evaluator, Provost's Award for Outstanding Teaching by a Graduate Teaching Assistant
Tampa Technology Fee Advisory Council, USF, 2010—2013
USF College of Arts and Science Computing Committee, 2010—2012
Reviewer, USF Internal Awards Program, 2010

B. Departmental Service

Graduate Committee, USF School of Geosciences, 2013—
Graduate Director, USF School of Geosciences, 2013—2014
Ad-hoc Governance Committee, USF School of Geosciences, 2013
Instructor Search Committee, USF Department of Geography, Environment, & Planning, 2013
Graduate Committee, USF Department of Geography, Environment, & Planning, 2011—2013
Tharp Fellowship Committee, USF Department of Geography, Environment, & Planning, 2013
Visiting Faculty Search Committee, USF Department of Geography, 2011
Colloquium Committee, USF Department of Geography, 2010—2011
Ad-hoc Committee for Departmental Restructuring, USF Department of Geography, 2010
GIS Certificate Committee, USF Department of Geography, 2009—2011
Environmental Science & Policy Certificate Committee, USF Department of Geography, 2008—2012
Visiting Faculty Search Committee, USF Department of Geography, 2009
Tharp Fellowship Committee, USF Department of Geography, 2009
Student Travel Grant Committee, USF Department of Geography, 2009
Student Faculty Representative, FSU Department of Geography, 2007—2008

D. Service to Discipline

Organizing Committee, NSF Advancing Mobility Analytics Workshops, Austin, TX, and Columbus, OH (2016—2017).

Program Committee, GIScience Workshop on Analysis of Movement Data, Montreal, Canada (2016).

Board Member, Spatial Modeling and Analysis Specialty of the AAG (2009—2010; 2011—2014)

Program Committee, SouthEastern Division of the Association of American Geographers (2009—2010)

Reviewer for Refereed Journals: Disasters; Spatial Networks & Econometrics; Journal of Field Ornithology; Southeastern Geographer; International Journal of Geographic Information Science; Computers, Environment, and Urban Systems; International Journal of Applied Geospatial Research; Ecological Restoration; GeoInformatica; Ecological Applications; Applied Geography; Suburban Sustainability; Annals of GIS; etc.

Reviewer for Funding Agencies: GEOIDE (GEOmatics for Informed DEcisions Network); National Science Foundation.