DAVID RICHARD JOHNSON

Assistant Professor School of Industrial Engineering; Department of Political So Purdue University 315 N Grant Street West Lafayette, IN 47907-2023	+1-765-494-7122 cience davidjohnson@purdue.edu
Adjunct Mathematician RAND Corporation 1776 Main Street Santa Monica, CA 90407-2138	
EDUCATION	
Pardee RAND Graduate School Ph.D., Policy Analysis Dissertation: "Improving Flood Risk Estimates and Mitigation I Under Deep Uncertainty"	Santa Monica, California, USA 2013 Policies In Coastal Louisiana
University of Cambridge Master of Advanced Study (MASt), Mathematics	Cambridge, England, UK 2005
North Carolina State University B.S., Mathematics (Physics minor)	Raleigh, North Carolina, USA 2003
HONOURS AND AWARDS	
Seed for Success Award (for external sponsored awards ove Purdue University	er \$1 million) 2017
Cazier Dissertation Award in Sustainability Pardee RAND Graduate School	2010
Outstanding Teaching Assistant Award Pardee RAND Graduate School	2010
RAND Impact Award RAND Corporation	2009, 2011
Gates Cambridge Scholar University of Cambridge, UK	2004
Valedictorian North Carolina State University	2003
Senior Award for Scholarly Achievement North Carolina State University College of Physical and Mather	matical Sciences 2003
John T. Caldwell Alumni Scholar North Carolina State University	1999-2003
Golden Chain Honor Society (NCSU's most prestigious hon North Carolina State University	orary, 12 inducted annually) 2002
Meritorious Winner, 2001 COMAP Mathematical Modeling Consortium for Mathematics and Its Applications	g Competition 2001

PRIOR PROFESSIONAL EXPERIENCE

Associate Mathematician RAND Corporation

Assistant Policy Analyst

RAND Corporation

Lead developer of the risk assessment model used to inform the selection of hurricane protection projects included in Louisiana's \$50 billion *Comprehensive Master Plan for a Sustainable Coast* (2012). Created an improved statistical model for estimating flood depth probabilities on the interior of hurricane protection systems. Analysed cost-effective implementation strategies for spending \$10.2 billion allocated by the Master Plan for nonstructural risk mitigation measures. Working for the state of Louisiana on their 2017 master plan update.

Performing research to assist in policy-making, with a specialization in energy and environmental issues. Primary roles have been mathematical modelling, quantitative uncertainty analysis, and risk assessment. Current research includes cost-benefit analysis of flood risk reduction projects in Louisiana, life cycle assessment of greenhouse gas emissions from biomass production, efficient tradeoff frontiers between multiple attributes of biofuel production, and adaptive planning methods for water scarcity and quality management.

Also produced a model of greenhouse gas emissions associated with the production of biofuels which has been adopted by the U.S. Department of Energy.

Core Faculty Member

Pardee RAND Graduate School

• Faculty of the nation's original and largest public policy Ph.D. program. Taught small-group tutorial course on exploratory analysis and robust decision-making. Mentoring graduate students, serving on admissions and other school committees.

Business Analyst

McKinsey & Company

• Consulted for Fortune 500 companies, non-profit fine arts organizations, and other clientele. Identified over \$10M in additional revenue opportunities for a waste disposal client, studied future trends in the oil and gas industry, modelled the cost breakdown of each step in the sales process of a large software company, and analysed industry trends to craft the annual operations strategy for a major city symphony.

Research Skills and Themes

Analysis

Primary focus on quantitative modelling and methodology development in support of long-range planning under uncertainty. Applications include flood risk management, food security, renewable energy portfolios, water scarcity management, and other topics related to global climate change mitigation and adaptation. Methods include life cycle assessment, risk analysis, robust decision-making, systems analysis, econometrics, and other various modelling and simulation techniques.

Computing

Modelling/optimization tools: R, Analytica, ArcGIS, Excel, NetLogo, Stata, AMPL, Mathematica Programming languages: R, VBA, PHP, COBOL, FORTRAN, Perl (comfortable learning any) Database packages: MySQL, PostgreSQL, others

Other

Formal training in business communications, presenting with impact, creative problem solving, and analysis from McKinsey & Company, one of the world's foremost management consulting firms.

Santa Monica, California 2013-2015

Santa Monica, California

2008-2013

Santa Monica, California

2013-2015

Houston, Texas 2006-2007

PUBLICATIONS AND PAPERS

Peer-Reviewed Papers and Book Chapters

D. Johnson. "Improved Methods for Estimating Flood Depth Exceedances within Hurricane Protection Systems." (Revise and resubmit at *Risk Analysis*, revisions under review.)

D. Johnson. "Integrated Risk Assessment and Management Methods are Necessary for Effective Implementation of Natural Hazards Policy." (Revise and resubmit at *Risk Analysis*, revisions under review.)

J. Johnson, L. Zanotti, Z. Ma, D. Yu, **D. Johnson**, A. Kirkham, C. Carothers. "Interplays of sustainability, resilience, adaptation and transformation." In <u>Handbook of Sustainability and Social</u> <u>Science Research</u>, eds. W.L. Filho, J. Callewaert, R. Marans. 2018. New York City: Springer.

J. Fischbach, **D. Johnson**, K. Kuhn. "Bias and Efficiency Tradeoffs in the Selection of Storm Suites Used to Estimate Flood Risk." Feb 2016, *Journal of Marine Science and Engineering*. Special Issue "Coastal Hazards Related to Storm Surge."

D. Johnson, A. Curtright, H. Willis. "Identifying Key Drivers of Greenhouse Gas Emissions from Biomass Feedstocks for Energy Production." *Environmental Science & Policy*. Nov 2013. 33(11): 109-119. doi: 10.1016/j.envsci.2013.05.003.

D. Johnson, J. Fischbach. "Estimating Surge-Based Flood Risk with the Coastal Louisiana Risk Assessment Model," *Journal of Coastal Research*. Aug 2013. Special Issue 67: 109-126. doi: 10.2112/SI_67_8.

A. Curtright, **D. Johnson**, H. Willis, T. Skone. "Scenario Uncertainties in Estimating Direct Land-Use Change Emissions in Biomass-to-Energy Life Cycle Assessment," *Biomass & Bioenergy*. Dec 2012. 47(12): 240-249. doi: 10.1016/j.biombioe.2012.09.037.

J. Fischbach, **D. Johnson**, D. Ortiz, B. Bryant, M. Hoover, J. Ostwald. *Coastal Louisiana Risk Assessment Model: Technical Description and 2012 Coastal Master Plan Analysis Results*. TR-1259-CPRA. Santa Monica, CA: RAND Corporation, Sep 2012.

D. Johnson, H. Willis, A. Curtright, C. Samaras, T. Skone. "Incorporating Uncertainty Analysis into Estimates of Life Cycle Greenhouse Gas Emissions from Biomass Production," *Biomass & Bioenergy*. July 2011. 35(7): 2619-2626. doi: 10.1016/j.biombioe.2011.02.046.

Refereed Conference Papers

D. Johnson, S. Sun, A. Huang, T. Hertel. "Quantifying the Impact of Biomass Co-Firing on GHG Emissions from Coal-Powered Electricity Generation." 2018 Agricultural & Applied Economics Association (AAEA) Annual Meeting. Washington, D.C.: August, 2018.

A. Mahalingam, **D. Johnson**, U. Ozmel. "Hierarchical and Modular Organization in Strategic Networks." Strategic Management Society (SMS) 27th Annual Conference. Houston, TX: October, 2017.

J. Johnson, A. Kirkham, L. Zanotti, D. Yu, **D. Johnson**, C. Carothers, M. Burnham, Z. Ma. "Interplay between sustainability, resilience, adaptation, and transformation." *Sustainability and Social Science Research Symposium*. University of Michigan, May 17-19, 2017.

<u>Peer-Reviewed Technical Reports/Other (all RAND publications listed below are both</u> <u>internally and externally reviewed; other documents are externally reviewed)</u>

Fischbach, J., D. Johnson, E. Molina-Perez. "Reducing Coastal Flood Risk with a Lake Pontchartrain Barrier." RR-1988. Santa Monica, CA: RAND Corporation, July 2017.

J. Fischbach, D. Johnson, K. Kuhn, M. Pollard, C. Stelzner, R. Costello, E. Molina-Perez, R. Sanchez, J. Syme, H. Roberts, Z. Cobell. "2017 Coastal Master Plan Modeling: Attachment C3-25 – Storm Surge and Risk Assessment." Baton Rouge, Louisiana: LA Coastal Protection and Restoration Authority, Apr 2017.

D. Groves, K. Kuhn, J. Fischbach, **D. Johnson**, J. Syme. "Analysis to Support Louisiana's Flood Risk and Resilience Program and Application to the National Disaster Resilience Competition." RR-1449-CPRA. Santa Monica, CA: RAND Corporation, Jan 2016.

J. Fischbach, **D. Johnson**, E. Molina-Perez. "Lake Pontchartrain Surge Barrier: Preliminary Estimates of Risk Reduction and Inducement of Flooding from Proposed Alignments." PR-2175-CPRA. Santa Monica, CA: RAND Corporation, Nov 2015.

D. Johnson, J. Fischbach, K. Kuhn. "Current and Future Flood Risk in Greater New Orleans." In *The New Orleans Index at Ten Collection*, ed. Allison Plyer. The Data Center. New Orleans, Louisiana, Aug 2015.

N. Powell, H. Zhao, S. Zou, H. Roberts, D. Resio, **D. Johnson**, R. Clark. "Project Development and Implementation Program: Upper Barataria Basin Risk Reduction Modeling Phase 2 – Rainfall and Storm Surge Combined Effects Modeling." The Water Institute of the Gulf. Baton Rouge, Louisiana, July 2015.

H. Roberts, **D. Johnson**, R. Clark. "Project Development and Implementation Program: Upper Barataria Basin Risk Reduction." The Water Institute of the Gulf. Baton Rouge, Louisiana, March 2014.

D. Groves, J. Fischbach, D. Knopman, **D. Johnson**, K. Giglio. "Strengthening Coastal Planning: How Coastal Regions Could Benefit from Louisiana's Planning and Analysis Framework." RR-437. Santa Monica, CA: RAND Corporation, Feb 2014.

D. Groves, E. Bloom, **D. Johnson**, D. Yates, V. Mehta. "Addressing Climate Change in Local Water Agency Plans: Demonstrating a Simplified Robust Decision Making Approach in the California Sierra Foothills." **RR-491-CEC**. Santa Monica, CA: RAND Corporation, Oct 2013.

D. Johnson. "Improving Flood Risk Estimates and Mitigation Policies In Coastal Louisiana Under Deep Uncertainty." RGSD-315. Santa Monica, CA: RAND Corporation, Aug 2013.

J. Fischbach, **D. Johnson**, D. Ortiz, B. Bryant, M. Hoover, J. Ostwald. "Appendix D-25: Risk Assessment (CLARA) Model Technical Report," prepared for the Coastal Protection and Restoration Authority of Louisiana. Jan 2012.

A. Curtright, H. Willis, **D. Johnson**. "Documentation for the Calculating Uncertainty in Biomass Emissions Model, version 2.0 (CUBE v2.0): Contents and Use," prepared for the National Energy Technology Laboratory, US Department of Energy. Nov 2011.

N. Kalra, O. Younossi, K. Kamarck, S. Al-Dorani, G. Cecchine, A. Curtright, C. Feng, A. Litovitz, **D.** Johnson, M. Makki, S. Nataraj, D. Ortiz, P. Roshan, C. Samaras. *Recommended Research Priorities for the Qatar Foundation's Environment and Energy Research Institute*. MG-1106-QF. Santa Monica, CA: RAND Corporation, 2011.

Non-Refereed Research Briefs

D. Groves, J. Fischbach, D. Knopman, C. Sharon, **D. Johnson**, D. Ortiz, B. Bryant, M. Hoover, J. Ostwald. "Addressing Coastal Vulnerabilities Through Comprehensive Planning: How RAND Supported the Development of Louisiana's Comprehensive Master Plan." RB-9696-CPRA. Santa Monica, CA: RAND Corporation, Jan 2013.

J. Fischbach, **D. Johnson**, D. Ortiz, B. Bryant, M. Hoover, J. Ostwald. "CLARA Flood Risk Model Supports Louisiana's Coastal Planning." RB-9688-CPRA. Santa Monica, CA: RAND Corporation, Sep 2012.

SELECTED PRESENTATIONS

Invited Talks

D. Johnson, J. Fischbach. "Connecting Systems Model Design to Decision-Maker and Stakeholder Needs: Lessons from Louisiana's Coastal Master Plan." *American Geophysical Union 2017 Fall Meeting*. Session on Water and Society: Water Resources Management and Policy in a Changing World. New Orleans, LA. December 11-15, 2017. (I was the invited speaker for this talk, but J. Fischbach presented for me due to conflict with Society for Risk Analysis conference noted in the contributed talks below.)

D. Johnson. Invited panel with I. S. Wing (chair), T. Wong, K. Riahi. "Challenges in Coupling Sectoral Models." *Workshop on Modeling Integrated Energy-Water-Land Systems Dynamics*. Sponsored by Stanford Energy Modeling Forum. Snowmass, CO. July 18-21, 2017.

D. Johnson. "Joint Probability Methods for Estimating Storm Surge Flood Risk: Applications in Coastal Louisiana." *Purdue University Hydrology and Hydraulics Seminar Series*. West Lafayette, IN. February 14, 2017.

D. Johnson. "Simulation Modeling for Infrastructure Resilience Policy and Planning under Deep Uncertainty." *Indiana University-Purdue University Indianapolis*. Presentation to visiting members of World Bank's Disaster Risk Management group. December 14, 2016.

D. Johnson. "Simulation and Systems Approaches to Strategy." *Purdue University Krannert Strategic Management Graduate Seminar*. West Lafayette, IN. October 6, 2016.

J. Fischbach, **D. Johnson**, K. Kuhn. "An Updated Coastal Louisiana Risk Assessment (CLARA) Model to Estimate Flood Depths, Damage, and Risk Reduction Project Benefits." *State of the Coast* 2016. New Orleans, LA. June 1-3, 2016.

D. Johnson. "Robust Decision-Making for Planning under Deep Uncertainty." *Purdue University Industrial Engineering Graduate Seminar*. West Lafayette, IN. October 20, 2015.

D. Johnson. "Assessing the Potential for Cost-Effective Nonstructural Risk Reduction in Coastal Louisiana." *State of the Coast 2014*. New Orleans, LA. Mar 18-20, 2014.

D. Johnson, R. Lempert. "Addressing Uncertainty and Stakeholder Values in Infrastructure Risk Management." *Eastern Coastal Infrastructure and Climate Change: Science, Impacts, Planning, and Response Conference*. Washington, D.C. Feb 25-28, 2014.

D. Johnson. "Predicting Coastal Flood Risk in an Uncertain Future: Lessons from Louisiana's 2012 Master Plan." *Eastern Coastal Infrastructure and Climate Change: Science, Impacts, Planning, and Response Conference*. Washington, D.C. Feb 25-28, 2014.

D. Johnson. "Decision-Making under Uncertain Climate." *Urban Flood Risk Management Technical Workshop*. Sponsored by the World Bank, for China's Ministry of Water Resources. Beijing, China. Dec 10-11, 2013.

D. Johnson. "Heuristic Optimization of Biofuels Production Scenarios That Meet U.S. Renewable Fuel Standards." *2013 Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting*. Minneapolis, MN. Oct 6-9, 2013.

D. Johnson, J. Fischbach. "Cost-Effective and Robust Strategies for Nonstructural Flood Risk Reduction in Coastal Louisiana." 2013 Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting. Minneapolis, MN. Oct 6-9, 2013.

D. Johnson, J. Fischbach. "Informing Sea-Level Rise Adaptation Decisions in Coastal Louisiana under Deep Uncertainty." *Energy Modeling Forum Workshop on Climate Change Impacts and Integrated Assessment (CCI/IA)*. Snowmass, CO. July 22-Aug 2, 2013.

J. Fischbach, **D. Johnson**, D. Ortiz. "Application of the Coastal Louisiana Risk Assessment (CLARA) Model to Predict Project Performance." *State of the Coast 2012*. New Orleans, LA. June 25-27, 2012.

Contributed Talks / Other (presented by first author)

D. Johnson, Z. Richardson, S. Sierra, M. Shisler. "Multi-Objective Analysis of Funding Allocations for Nonstructural Flood Risk Mitigation in Coastal Louisiana." Annual Meeting of the Decision-Making under Deep Uncertainty (DMDU) Society. Santa Monica, CA: November 13-15, 2018.

D. Johnson, S. Sun, A. Huang, T. Hertel. "Quantifying the Impact of Biomass Co-Firing on GHG Emissions from Coal-Powered Electricity Generation." 2018 Agricultural & Applied Economics Association (AAEA) Annual Meeting. Washington, D.C.: August 5-7, 2018.

V. Mijares, M. Gitau, **D. Johnson**. "Development and Improvement of Water Quality Index." 39th Annual Indiana Water Resources Association (IWRA) Symposium. Bloomington, IN. June 27-29, 2018.

T. Sahan, **D. Johnson**. "Digital Tools to Promote Nonstructural Mitigation." State of the Coast 2018. New Orleans, LA. May 30-June 1, 2018.

D. Johnson, J. Fischbach. "Flood Risk and Damage Assessment for Louisiana's 2017 Coastal Master Plan." State of the Coast 2018. New Orleans, LA. May 30-June 1, 2018.

D. Johnson, J. Fischbach, D. Groves. "Risk Reduction Benefits and Costs from Louisiana's 2017 Coastal Master Plan." State of the Coast 2018. New Orleans, LA. May 30-June 1, 2018.

D. Johnson, J. Fischbach, K. Kuhn. "Storm surge-based flood risk in coastal Louisiana: impacts of Louisiana's 2017 coastal Master Plan and methods for uncertainty propagation." *Society for Risk Analysis 2017 Annual Meeting*. Arlington, VA: Dec 10-14, 2017.

C.A. Blain, J. Ramirez, A. Bobet, J. Browning, B. Edge, W. Holmes, **D. Johnson**, I. Robertson, T. Smith, D. Zuo. "NHERI: Advancing the Research Infrastructure of the Multi-Hazard Community." *American Geophysical Union 2017 Fall Meeting*. New Orleans, LA. Dec 11-15, 2017.

A. Mahalingam, **D. Johnson**, U. Ozmel. "Hierarchical and Modular Organization in Strategic Networks." *Strategic Management Society* 27th Annual Conference. October 28-31, 2017.

A. Mahalingam, **D. Johnson**, U. Ozmel. "Evolution of Hierarchical and Modular Patterns in Strategic Networks." *INFORMS Annual Meeting*. October 22-25, 2017.

D. Johnson, Z. Chen. "Estimating the Potential for Cost-Effective Nonstructural Flood Risk Reduction in Coastal Louisiana." *INFORMS Annual Meeting*. October 22-25, 2017.

V. Mijares, M. Gitau, **D. Johnson**. "Enhancement and Testing of Indices for Comprehensive Assessment of Water Quality." *38th Annual Indiana Water Resources Association Symposium*. Marshall, Indiana. June 28-30, 2017. (Student Poster Session)

V. Mijares, M. Gitau, **D. Johnson**. "Use of Water Quality Indices for Comprehensive Assessment of Water Quality." *National Conference and Global Forum on Science, Policy, and the Environment*. Washington, D.C. January 24-26, 2017.

D. Johnson, J. Fischbach, K. Kuhn. "Current and Future Flood Risk in Greater New Orleans." *State of the Coast 2016*. New Orleans, LA. June 1-3, 2016.

N. Powell, H. Roberts, H. Zhao, S. Zou, D. Resio, **D. Johnson**, R. Clark. "Integrating Storm Surge and Rainfall Flood Hazards in Upper Barataria." *State of the Coast 2016*. New Orleans, LA. June 1-3, 2016.

H. Roberts, J. Atkinson, J. Fischbach, **D. Johnson**. "Feasibility of Storm Surge Protection for Lake Pontchartrain." *State of the Coast 2016*. New Orleans, LA. June 1-3, 2016.

J. Fischbach, D. Groves, **D. Johnson**, C. Sharon. "Flood Risk Reduction Benefits and Costs in Louisiana's 2012 Coastal Master Plan." *2014 Society for Risk Analysis Annual Meeting*, Denver, CO. Dec 7-10, 2014.

D. Johnson, J. Fischbach, H. Willis. "Addressing Uncertainty and Public Values in Infrastructure Risk Management." *Transportation Hazards and Security Summit*. Irvine, CA. Aug 19-23, 2013.

J. Fischbach, **D. Johnson**, D. Ortiz. "Applying the Coastal Louisiana Risk Assessment Model to Assess Long-Term Benefits from Flood Risk Reduction Projects." 9th INTECOL International Wetlands Conference. Orlando, FL. June 3-8, 2012.

D. Johnson, J. Fischbach, D. Groves, C. Sharon. "Protecting and Restoring Louisiana's Coast: RAND's Contribution to Louisiana's Comprehensive Master Plan for a Sustainable Coast." *Climate Adaptation Futures: Second International Climate Change Adaptation Conference 2012*. Tucson, AZ. May 29-31, 2012.

D. Johnson, J. Fischbach, D. Ortiz, N. Burger. "Assessing Long-Term Flood Risks to Coastal Louisiana Under Deep Uncertainty." *2011 Society for Risk Analysis Annual Meeting*. Charleston, SC. Dec 4-7, 2011.

H. Willis, D. Groves, J. Fischbach, **D. Johnson**, L. Andrews. "Reducing New Orleans Storm-Surge Flood Risk in an Uncertain Future." *2011 Society for Risk Analysis Annual Meeting*. Charleston, SC. Dec 4-7, 2011.

D. Johnson, A. Curtright, H. Willis, C. Samaras. "Modeling Uncertainty in Biomass Greenhouse Gas Emissions with the Calculating Uncertainty in Biomass Emissions (CUBE) Model." *International Society for Industrial Ecology 2011 Conference*. Berkeley, CA. June 7-10, 2011.

C. Samaras, H. Willis, D. Ortiz, A. Curtright, **D. Johnson**, K. Crane. "Modeling Uncertainty in Future Energy Technologies and Emissions." *13th Annual Electric Power Conference & Exhibition*. Rosemont, Illinois. May 10-12, 2011.

C. Samaras, A. Curtright, **D. Johnson**, D. Ortiz, A. Litovitz, H. Willis. "Modeling GHG Emissions Uncertainty and Infrastructure Decisions in Utilizing Biomass-Based Energy." *2010 Society for Risk Analysis Annual Meeting*. Charleston, SC. Dec 6, 2010.

TEACHING EXPERIENCE

Instructor, Policy Analysis of Flood Risk Purdue University (IE495)	Spring 2018
Instructor, Engineering Economics Purdue University (IE343)	Spring 2016, 2017, 2018
Instructor, Quantitative Analysis for Climate Change Adaptation Purdue University (IE590-POL520)	Fall 2015, 2016, 2017
Instructor, Computing Tools for Exploratory and Robustness Analysis Pardee RAND Graduate School	Fall 2013-Winter 2014
Teaching Assistant, Empirical Analysis 1 Pardee RAND Graduate School	Fall 2009, 2010, 2011
Teaching Assistant, Advanced Econometrics 2/3 Pardee RAND Graduate School	Spring 2011
Teaching Assistant, Microeconomics 2 Pardee RAND Graduate School	Winter 2010
Teaching Assistant, Microeconomics 1 Pardee RAND Graduate School	Fall 2009

SERVICE AND PROFESSIONAL INVOLVEMENT

Member:

Society for Risk Analysis (SRA) Institute for Operations Research and the Management Sciences (INFORMS) American Geophysical Union (AGU) Decision-Making under Deep Uncertainty (DMDU) Society

Peer Reviewer:

Climatic Change, Risk Analysis, Water Resources Research, Environmental Science & Technology, ASCE Journal of Infrastructure Systems, Applied Energy, Biomass & Bioenergy, Journal of Industrial Ecology, Geoscientific Model Development

Review Panelist, National Science Foundation	2018
Review Panelist, NOAA New York Sea Grant Program	2017

Purdue University:

Search Committee, Political Science (Policy faculty search)	2015-2016
Ad-hoc Committee for Undergrad Certificate in Environmental & Sustainability Studies	2015-2016
Churchill and Gates Cambridge Scholarship Advisory Board	2016-2018
Facilities Committee, Industrial Engineering	2016-2017
Search Committee, Political Science (Causal Inference faculty search)	2017
Search Committee, Center for the Environment (Director search)	2018

Pardee RAND Graduate School:

Admissions Committee

2014, 2015

Search Committee for Assistant Dean Student Representative, Faculty Committee on Curriculum and Appointments	2013 2010-2011
University of Cambridge:	
Alumni Ambassador for Southern California, Gates Cambridge Scholarships	2009-2011
North Carolina State University:	
Park Scholarships Regional Selection Committee & Semi-Finalist Interviewer	2011-2016
Caldwell Fellows Selection Committee	2013
American Association for the Advancement of Science:	
Evaluator, Emerging Leaders in Science and Society program	2013, 2014