

KRISTA J. GILE

Associate Professor
Department of Mathematics and Statistics
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Research Interests:

Most of my research is inspired by the information needs of social science and health policy research. Because these projects are substantively driven, the data are often messy and therefore not conducive to standard statistical methods. I especially enjoy studying technical details alongside their practical implications. Much of my work has focused on methods for making inference from sparse data on hard-to-reach human populations, with social or health policy implications.

Education:

University of Washington, Seattle, WA

Ph.D., Statistics, August 2008

Track in Statistical Demography, Center for Statistics and the Social Sciences

Virginia Polytechnic Institute and State University, Blacksburg, VA

M.S., Science and Technology Studies*, May 2000

Social Studies of Science and Technology Track

*Interdisciplinary program examining science and technology from the perspectives of history, philosophy, sociology, and anthropology.

Rensselaer Polytechnic Institute, Troy, NY

B.S., Electrical Engineering, May 1998

Sociology Minor

Research Positions:

University of Massachusetts, Amherst, Amherst, MA

Associate Professor, Department of Mathematics and Statistics, 2016-Present

Assistant Professor, Department of Mathematics and Statistics, 2010-2016

Nuffield College, University of Oxford, Oxford, UK

Postdoctoral Prize Research Fellow, 2008-2010

A self-directed research fellowship. Nuffield College is a graduate college specializing in social science research. Primary departmental affiliation: Statistics.

University of Washington, Seattle, WA

Research Assistant, Social Network Modeling, Mark S. Handcock, 2004-2008

Consulting Research Assistant,

Center for Statistics and the Social Sciences, 2005-2006

Advocates for Human Potential, Inc., Albany, NY

Assistant Director of Research, 2000-2003

Evaluated performance of community-based mental health residential programs.

Funding:

Current:

Source of Support: Bill and Melinda Gates Foundation
PI/Role: L. Alkema (CO-PI K. Gile)
Period Covered: November 23, 2016 to December 31, 2020
Title of Project: *Improved monitoring of family planning indicators: statistical approaches and tools to improve strategic information at national and subnational levels*
Award Amount: \$1,406,258.

Source of Support: NSF DGE-1565521
PI/Role: B. Levine (Senior Personnel K. Gile)
Period Covered: January 1, 2016 to December 31, 2020
Title of Project: *CyberCorps Scholarship for Service at the University of Massachusetts Amherst*
Award Amount: \$4,159,337.

Source of Support: NIH
PI/Role: J. Kitts and J. Sirard (Senior Personnel K. Gile)
Period Covered: September 16, 2016 to June 30, 2021
Title of Project: *Identifying Mechanisms of Peer Influence on Youth Weight-Related Behaviors*
Award Amount: \$3,454,771.

Past:

Source of Support: NSF 12-510 SES-1230081
PI/Role: K. Gile (PI)
Period Covered: September 15, 2012 to August 31, 2017
Title of Project: *Diagnosis and Reduction of Bias in Respondent-driven Sampling*
Award Amount: \$199,938.

Source of Support: NIH
PI/Role: K. Gile (PI)
Period Covered: June 1 2017 to August 31, 2017
Title of Project: *Support for collaboration on project studying prescription opioid users in New York City. Supported Dongah Kim for summer, including thesis work and co-authored substantive publications. Subcontract with National Development Research Institutes, Inc.*
Award Amount: \$15,231.

Source of Support: UMass President's Science and Technology Fund (S&T)
PI/Role: E. Berger and B. Levine (Co-PI K. Gile)
Period Covered: July 1, 2015 to June 30, 2017
Title of Project: *UMass Amherst Institute in Cybersecurity*
Award Amount: \$125,000.

Source of Support: NIH 1R21AG042737-01A1
PI/Role: E. Erosheva, (Subcontract PI K.Gile)
Period Covered: June 1, 2013 to May 31, 2016
Title of Project: *Respondent-driven sampling for highly structured populations*
Award Amount: \$179,732 (Subcontract Amount: \$39,862).

Source of Support: NIH 5R21HD075714-02
PI/Role: M. Handcock (Consultant K. Gile)
Period Covered: September 24, 2013 to May 31, 2015
Title of Project: *Innovations in Network Modeling for HIV Prevention Studies*
Award Amount: \$179,337 (Consultant amount: \$5,000).

Source of Support: NIH R21HD063000
PI/Role: M. Handcock, (Consultant K.Gile)
Period Covered: July 1, 2010 to June 30, 2011
Title of Project: *Valid Inference for Respondent Driven Sampling of Hidden Networked Populations*
Consultant Amount: \$2,600.

Completed Papers and Manuscripts:

Codes for co-author roles at the time of most of the work:

* = graduate student

italic = primary field outside statistics

(33) Kang, Shuaimin*, Krista J. Gile, and Megan Price, "Nested Dirichlet Process for population size estimation from multi-list recapture data", under review.

(32) Kim, Dongah*, Krista J. Gile, *Honoria Guarino*, and *Pedro Mateu-Gelabert*, "Inferring Bivariate Association from Respondent-Driven Sampling Data", ***Journal of the Royal Statistical Society, Series C***, revision under review.

(31) *Ong, Adrian W.*, *Jacqueline Stephenson*, Krista J. Gile, Rachel Aronow*, Xiaoyun Wang*, Yuting Xu*, *Neils D. Martin*, *Patrick K. Kim*, and *Forrest B. Fernandez*, "Outcome of hypotensive trauma patients by time and day of arrival," ***Journal of Surgical Research***, revision under review.

(30) Beaudry, Isabelle S.* and Krista J. Gile (2020), "Correcting for Differential Recruitment in Respondent-Driven Sampling Data using Ego-Network Information," ***Electronic Journal of Statistics***, accepted.

(29) *Nemec, Eric C.*, *Michael C. Thomas*, Krista J. Gile, Jiayue Tong*, *Melissa J. Mattison* (2020), "Biometric Evaluation of PharmD Student Wellness and Academic Success," ***American Journal of Pharmaceutical Education***, accepted.

(28) Ott, Miles Q.*, Krista J. Gile, Matthew T. Harrison, *Lisa G. Johnston*, and Joseph W. Hogan (2019), "Reduced bias for respondent-driven sampling: accounting for non-uniform edge sampling probabilities in people who inject drugs in Mauritius," ***Journal of the Royal Statistical Society, Series C***, 68:5, 1411-1429.

(27) Ott, Miles Q.*, *Matthew Harrison*, Krista Gile, *Nancy Barnett*, and Joseph Hogan (2019), "Fixed Choice Design and Augmented Fixed Choice Design for Network Data with Missing Observations," ***Biostatistics***, 20:1, 97-110.

(26) *Petersen, Sandra L.*, *Evelyn S. Erenrich*, *Dovev L. Levine*, *Jim Vigoreaux*, and Krista Gile (2018), "Multi- institutional study of GRE scores as predictors of STEM PhD degree completion: GRE gets a low mark," ***PLOS-ONE***.

(25) Griffin, Maryclare*, Elena Erosheva, Krista Gile, Mark Handcock, and *Karen Fredriksen-Goldsen*, (2018) "Assessing feasibility of respondent-driven sampling for estimating characteristics in populations of lesbian, gay and bisexual older adults," ***Annals of Applied Statistics***, 12:4, 2252-2278.

(24) Gile, Krista J., Isabelle S. Beaudry, Mark S. Handcock, Miles Q. Ott, (2018) "Methods for Inference from Respondent-Driven Sampling Data," ***Annual Review of Statistics and its Application***, 5, 65-93.

- (23) *Spiller, Michael W.*, Krista J. Gile, Mark S. Handcock, Corinne M. Mar, and *Cyprian Wejnert* (2018), "Evaluating Variance Estimators for Respondent-Driven Sampling," *Journal of Survey Statistics and Methodology*, 6:1, 23-45.
- (22) *Murai, Fabricio* *, *Diogo Renno*, *Bruno Ribeiro*, *Giselle Pappa*, *Don Towsley*, and Krista Gile (2018), "Selective Harvesting for Networks," *Data Mining and Knowledge Discovery*, 32:1, 187-217.
- (21) *Beaudry, Isabelle S.* *, Krista J. Gile, and *Shruti H. Mehta* (2017), "Inference for Respondent-Driven Sampling with Misclassification," *Annals of Applied Statistics*, 11:4, 2111-2141.
- (20) *Mateu-Gelabert, Pedro*, *Lauren Jessell*, *Elizabeth Goodbody*, *Dongah Kim* *, Krista Gile, *Jennifer Teubl*, *Cassandra Syckes*, *Kelly Ruggles*, *Jeffrey Lazar*, *Sam Friedman*, and *Honorio Guarino* (2017), "High enhancer, downer, withdrawal helper: Multifunctional nonmedical benzodiazepine use among young adult opioid users in New York City", *International Journal of Drug Policy*, 46, 17-27.
- (19) Gile, Krista J., and Mark S. Handcock, (2017) "Analysis of Networks with Missing Data with Application to the National Longitudinal Study of Adolescent Health," *Journal of the Royal Statistical Society, Series C*, 66:3, 1-19.
- (18) *Ott, Miles Q.* * and Krista J Gile, (2016) " Unequal edge inclusion probabilities in link-tracing network sampling with implications for Respondent-Driven Sampling," *Electronic Journal of Statistics*, 10:1, 1109-1132.
- (17) *Ott, Miles Q.* *, *Joseph W. Hogan*, Krista J. Gile, *Crystal Linkletter*, and *Nancy P. Barnett*, (2016) "Bayesian Comparative Calibration of Self and Peer Reports of Alcohol Use," *Statistics and Medicine*, 35:19, 3303-3318.
- (16) *Handcock, Mark S.*, Krista J. Gile and *Corinne M. Mar*, (2015) "Estimating the Size of Populations at High Risk for HIV using Respondent-Driven Sampling Data," *Biometrics*, 71:1, 258-266.
- (15) Gile, Krista J., and Mark S. Handcock, (2015) "Network Model-Assisted Inference from Respondent-Driven Sampling Data," *Journal of the Royal Statistical Society Series A*, 178:3, 619-639.
- (14) Gile, Krista J, *Lisa G. Johnston*, and *Matthew J. Salganik*, (2015), "Diagnostics for Respondent-driven Sampling," *Journal of the Royal Statistical Society Series A*, 178:1, 241-269.
- (13) *Handcock, Mark S.*, Krista J. Gile and *Corinne M. Mar*, (2014) "Estimating Hidden Population Size using Respondent-Driven Sampling Data," *Electronic Journal of Statistics*, 8:1, 1491-1521.
- (12) *Atwood, James* *, *Don Towsley*, Krista Gile, and *David Jensen*, (2014), "Learning to Generate Networks," *NIPS 2014*, Montreal, QC.
- (11) *Baker, Reg*, *J. Michael Brick*, *Nancy A. Bates*, *Mike Battaglia*, *Mick P. Couper*, *Jill A. Dever*, Krista J. Gile, and *Roger Tourangeau*, (2013) "Summary Report of the AAPOR Task Force on Non-Probability Sampling," *Journal of Survey Statistics and Methodology*, 1:2, 90-105.
- (10) *Murai, Fabricio* *, *Bruno Ribeiro*, *Don Towsley*, and Krista Gile, (2013) "Characterizing Branching Processes from Sampled Data," *SIMPLEX 2013*, Rio de Janeiro, Brazil.

(9) American Association for Public Opinion Research, (2013) “Task Force Report on Non-Probability Samples.”

(8) Handcock, Mark S. and Krista J. Gile, (2011) “Comment: On the Concept of Snowball Sampling.” *Sociological Methodology*, 41: 367-371.

(7) Tomas, Amber, and Krista J. Gile (2011). “The Effect of Differential Recruitment, Non-response and Non-recruitment on the Bias of Estimators for Respondent-Driven Sampling.” *Electronic Journal of Statistics*, 5, 899-934.

(6) Gile, Krista J. (2011). “Improved Inference for Respondent-Driven Sampling Data with Application to HIV Prevalence Estimation.” *Journal of the American Statistical Association*, 106:493, 135-46.

(5) Gile, Krista J., and Mark S. Handcock (2010). “Respondent-Driven Sampling: An Assessment of Current Methodology.” *Sociological Methodology*, 40, 285-327.

(4) Handcock, Mark S., and Krista J. Gile (2010). “Modeling Networks from Sampled Data.” *Annals of Applied Statistics*, 4, 5-25.

(3) van Duijn, Marijtje A.J., Krista J. Gile, and Mark S. Handcock (2009). “A Framework for the Comparison of Maximum Pseudo Likelihood and Maximum Likelihood Estimation of Exponential Family Random Graph Models.” *Social Networks*, 31, 52-62.

(2) *Takeuchi, David T., Seunghye Hong**, Krista Gile, and *Margarita Alegria* (2007). “Developmental Contexts and Mental Disorders Among Asian Americans.” *Research in Human Development*, 4:1-2, 49-69.

(1) *Hornik, John A.*, and Krista Gile (2004). “Financing the Public Mental Health System in New York State.” Technical Assistance Report. New York State Conference of Local Mental Hygiene Directors, Inc.

Other Research Products:

- Software development: **R** package **RDS**, with Mark S. Handcock and Ian Fellows, 2011-present.
- Patent Application: *System and methods for expected node gain maximization from adaptive model generation*, with Fabricio Murai, Bruno Ribeiro, and Donald Towsley, February 2015.

Teaching Experience at University of Massachusetts, Amherst:

Graduate:

“Statistical Consulting Practicum”, (1 credit) F16, S17, F17, F18, S19, F19, S20, F20

“Regression Analysis”, Fall 2017, Fall 2018, Fall 2019

“Applied Statistics and Data Analysis”, Spring 2017, Spring 2019 (with A. Liu)

“Statistics II” (Casella & Berger), Spring 2014

“Statistics I” (Casella & Berger), Fall 2013, 2014, 2015

“Network Statistics” (topics course), Spring 2013

“Statistics of Networks and Graphs”, Fall 2012*

“Topics in Applied Statistics” (topics course), Spring 2012

Undergraduate:

“Fundamental Concepts of Statistics”, Fall 2020

“Regression Analysis”, Fall 2017, Spring 2019, Spring 2020

“Introduction to Statistics II”, Spring 2011, 2012, 2013

“Introduction to Statistics I”, Fall 2010

*(supplementary readings course co-taught with Don Towsley and Bruno Ribeiro from CS)

Supervision and Mentoring (current unless noted):

Graduate:

| | | | |
|-------------------------------|-----------------------|---|--------------|
| Committee Chair | Dongah Kim | UMass Statistics PhD | |
| Committee Chair | Shuaimin Kang | UMass Statistics PhD | 2020 |
| Committee Chair | Isabelle Beaudry | UMass Statistics PhD | 2017 |
| Unofficial Co-Chair | Miles Ott | Brown Univ. Biostatistics PhD | 2013 |
| Committee Member | Li Wang | UMass Statistics PhD | |
| Committee Member | Fangda Zhang | UMass Mechanical and Industrial Engineering PhD | |
| Committee Member | Julianna Averill | UMass Kinesiology PhD | |
| Committee Member | Doruk Cengiz | UMass Economics PhD | |
| Summer Statistical Consulting | 1-5 students per year | | 2016-present |
| Committee Member | Yue Chang | UMass Statistics PhD | 2018 |
| Committee Member | Katherine Schlef | UMass Civil and Environmental Engineering PhD | 2018 |
| Committee Member | Kathryn Ann Grasha | UMass Astronomy PhD | 2018 |
| Committee Member | Chang Liu | UMass Computer Science PhD | 2016 |
| Committee Member | Fabricio Murai | UMass Computer Science PhD | 2016 |
| Committee Member | Evan Ray | UMass Statistics PhD | 2015 |
| Committee Member | Peng Wang | UMass Statistics PhD | 2015 |
| Committee Member | Wentian Lu | UMass Computer Science PhD | 2014 |
| Committee Member | Minji Lee | UMass Education PhD | 2014 |
| Synthesis Project | Fabricio Murai | UMass Computer Science PhD | 2013 |
| Committee Member | Huseyin Oktay | UMass Computer Science PhD | 2013 |
| Summer Research | Ngoc Thai | UMass Statistics MS | 2012 |
| Undergraduate: | | | |
| Independent Study | Erica Laidler | UMass Statistics Undergrad | 2019 |
| Independent Study | Lucy Lu | UMass Statistics Undergrad | 2019 |
| Independent Study | Fusheng Yang | UMass Statistics Undergrad | 2019 |
| Undergraduate Thesis | Mariah Mullins | Mt Holyoke Undergrad | 2015 |
| Summer URP | Abhijit Pawar | UMass Statistics Undergrad | 2014 |
| Summer URP | Mariah Mullins | Mt Holyoke Undergrad | 2014 |
| Undergraduate Thesis | Sarah Robertson | UMass Statistics Undergrad | 2014 |
| Summer SPUR, co-advise | Steele Valenzuela | UMass Postbac Student | 2013 |
| Summer URP, co-advise | 3 students | UMass Statistics Students | 2013 |
| Summer URP | Josh Whitcomb | UMass Statistics Undergrad | 2012 |
| Undergraduate Advising | about 15 per year | UMass Math/Stat Undergrads | |

Invited Professional Meetings since September 2010:

- *Committee on National Statistics (CNSTAT)/National Institute of Aging (NIA) meeting on Traditional and Non-Traditional Sampling Methods for Population Aging Research on Small Populations*, May 6, 2020 (virtual meeting).
- *World Health Organization Strategic Information and Key Populations Consultation*, Geneva, November 22, 2019 (remote participation).
- *UNAIDS expert consultation on developing a stigma index for people living with HIV*, Geneva, November 15 and 22, 2019 (remote participation).
- *New England Statistics Symposium*, Hartford, CT, May 17, 2019.
- *CDC Expert Consultation on Advancing Methods for Biobehavioral Surveys*, Atlanta, GA, September 17, 2018.
- *American Sociological Association Annual Meeting*, Philadelphia, PA, August 11, 2018.
- *CRM-CANSSI Workshop: Statistical Inference for Complex Surveys*, Montreal, QC, May 30, 2018.
- *Mass Mutual Women in Data Science Conference*, Boston, MA, January 19, 2018.
- *National Academy of Science Workshop on Improving Health Research on Small Populations*, Washington, DC, January 18, 2018.
- *Joint Statistical Meetings (JSM)*, Baltimore, MD, August 1, 2017.
- *US State Department Consultation on Human Trafficking*, Washington, DC, June 2, 2017.
- *New England Statistics Symposium*, Storrs, CT, April 22, 2017.
- *Centers for Disease Control and Prevention Consultation on Population Size Estimation*, Atlanta, GA, January 31, 2017.
- *Statistics Canada, 2014 International Methodology Symposium*, Gatineau, Quebec, Canada, October 31, 2014.
- *Royal Statistical Society, Annual Conference*, September 2, 2014.
- *Joint Statistical Meetings (JSM)*, Boston, MA, August 7, 2014.
- *UNAIDS Workshop on Population Size Estimation*, hosted at UMass, Amherst, June 9, 2014.
- *Center for Drug Use and HIV Research Methods Core Presentation*, New York University, February 19, 2014.
- *SAMSI Computational Social Science Undergraduate Workshop*, October 24, 2013.
- *SAMSI Computational Social Science Networks Workshop*, October 21, 2013.
- *SAMSI Computational Social Science Opening Workshop*, August 18, 2013.
- *Centers for Disease Control and Prevention, Consultation on Respondent-Driven Sampling*, Atlanta, August 20-1 2012.
- *Purdue Statistics Symposium*, Purdue University, June 22, 2012.
- *University of Oslo, Workshop on Network Modeling*, May 8, 2012.
- *University of London, University of Essex, Norface, Workshop: Design, Implementation, and Analysis: An Exploration of Respondent-Driven Sampling*, London, June 16, 2011.
- *Centers for Disease Control and Prevention, 13th Biennial CDC Symposium on Statistical Methods*, May 24, 2011.
- *SAMSI Complex Networks Workshop*, October 21, 2010.

Departmental or Cross-Departmental Seminars since September 2010:

- *University of Washington* Biostatistics, May 23, 2019.
- *Boston University* Mathematics and Statistics, May 2, 2019.
- *Amherst College* Statistics, November 1, 2018.
- *Harvard University* QGRID, May 22, 2017.
- *Northeastern University*, Network Science Institute, April 4, 2017.
- *Dartmouth*, Interdisciplinary Network Research Group, December 16, 2016.
- *McGill University*, Biostatistics, March 15, 2016.
- *Yale University*, Biostatistics, March 1, 2016.
- *University of Wisconsin-Madison*, Statistics, February 17, 2016.
- *University of Massachusetts, Amherst*, Computational Social Science Seminar, October 17, 2014.
- *Johns Hopkins University*, Center for AIDS Research, October 14, 2014.
- *Holyoke Community College*, Mathematics and Statistics Talk, October 1, 2014.
- *Carleton College*, Colloquium, Department of Mathematics and Statistics, May 13, 2014.
- *Harvard University*, Applied Statistics Seminar, April 2, 2014.
- *University of Massachusetts, Worcester*, Quantitative Health Sciences Seminar, March 3, 2014.
- *Duke* Networks Working Group, October 22, 2013.
- *University of Massachusetts, Amherst*, Bio-Epi Seminar, February 15, 2013.
- *University of California, Los Angeles*, Department of Statistics, October 25, 2011.
- *New York University*, IOMS-Statistics Research Seminar, October 14, 2011.
- *New York University*, Center for the Promotion of Research Involving Innovative Statistical Methodology (PRIISM), didactic lecture, October 13, 2011.
- *Smith College*, Department of Mathematics and Statistics, Applied Statistics Lecture Series, September 29, 2011.
- *University of Massachusetts, Amherst*, Computational Social Science Initiative Seminar Series, September 23, 2011.
- *United Nations, Hanoi*, Seminar Series, Hanoi, Vietnam, June 24, 2011.
- *University of Connecticut*, UMass-UConn Joint Colloquium, Department of Statistics, March 30, 2011.
- *Boston University*, Department of Statistics Seminar Series, January 20, 2011.

Contributed Presentations and Professional Meetings since September 2010:

- *Joint Statistical Meetings (JSM)*, Seattle, Washington, August 11, 2015.
- *International Network for Social Network Analysis Meeting (Sunbelt XXXIV)*, St. Pete Beach, FL, February 22, 2014.
- *Joint Statistical Meetings (JSM)*, Montreal, Canada, August 8, 2013.
- *ASA H2R 2012: Survey Methods for Hard to Reach Populations*, New Orleans, November 1 and 2, 2012.
- *New England Statistics Symposium*, Boston University, April 21, 2012.
- *International Network for Social Network Analysis Meeting (Sunbelt XXXII)*, Redondo Beach, CA, March 17, 2012.
- *Joint Statistical Meetings (JSM)*, Vancouver, BC, August 1, 2010.
- *International Network for Social Network Analysis Meeting (Sunbelt XXX)*, Trento, Italy, July 3, 2010.
- *Royal Statistical Society Conference*, Edinburgh, Scotland, September 9, 2009.
- *Statistical Methods for the Analysis of Network Data in Practice Workshop*, University College Dublin, June 16, 2009.
- *RC33 Logic and Methodology in Sociology Conference*, Naples, Italy, September 2, 2008.

- *Networks and New Methods for Global Health: A mid-winter meeting of the American Sociological Association Methods Section*, (poster) Durham, NC, February 23, 2008.
- *International Network for Social Network Analysis Meeting (Sunbelt XXVIII)*, St. Pete Beach, FL, January 26, 2008.
- *Joint Statistical Meetings (JSM)*, Salt Lake City, UT, August 2, 2007.
- *International Network for Social Network Analysis Meeting (Sunbelt XXVI)*, Vancouver, BC, Canada, April 29, 2006.

Honors:

- American Statistical Association Statistical Partnerships Among Academe, Industry, and Government (SPAIG) award. Main contributor. Partnership including MassMutual and the 5 colleges, 2019.
- Outstanding Teaching Award, University of Massachusetts, College of Natural Sciences, 2019.
- International Network for Social Network Analysis (INSNA), Best Student Paper Award, 2009. For “Respondent-Driven Sampling: An Assessment of Current Methodology.”
- University of Oxford, Master of Arts Degree by Resolution, 2008
- National Science Foundation, Vertical Integration of Research and Education in the Mathematical Sciences (VIGRE) Fellowship, 2003-2004, 2007-2008. Awarded on the basis of excellence of academic record and preparation for graduate study, area of research interest, and the potential to fit into and benefit from an integrated research group experience.
- Dorothy M. Gilford Prize, 2004. Awarded by the UW Department of Statistics for excellence in teaching by a graduate student.
- Hubert M. Blalock Fellowship, 2003. Awarded by the Center for Statistics and the Social Sciences to promising incoming students interested in statistics and the social sciences.
- Tau Beta Pi Engineering Honor Society, 1996-1998
- Eta Kappa Nu Electrical Engineering Honor Society, 1996-1998
- Academic Citation for exceptional performance, Engineering Probability, 1997
- Rensselaer Union Volunteer Recognition Award, 1997
- Rensselaer Founder’s Award for Excellence, 1996
- Electrical and Computer Systems Engineering Honor Student, 1996

Interdisciplinary Working Groups:

Social Science Statistics Reading Group, UMass, Amherst
 Diversity Research Institute, UMass Amherst
 Computational Social Science Institute, UMass Amherst
 Hard-to-Reach Populations Methods Research Group, Cross-Institutional

Professional Service:

Local, National, and International

- Expert Reviewer for contractor Manhattan Strategy Group, contracted by the Department of Labor to review International Labor Organization’s Measurement, Awareness-Raising, and Policy Engagement Project to Accelerate Action Against Child Labor and Forced Labor, 2020-present.
- Senior Statistician (Consultant) for contractor EnCompass, contracted by the U.S. Department of State Office to Monitor and Combat Trafficking of Persons for performance evaluation of the Program to End Modern Slavery Initiative (PEMS 1), 2020-present.
- Advisory Group, Spring 2021 program at SAMSI on Data Science in the Social and Behavioral Sciences
- Invited Expert Presenter, Committee on National Statistics (CNSTAT)/National Institute of Aging (NIA) meeting on Traditional and Non-Traditional Sampling Methods for Population Aging Research on Small Populations, May 6, 2020 (virtual meeting).

- Invited Expert Participant, World Health Organization Informal technical working group on Proposed simplified and rapid biobehavioral survey methodology for key populations, April 23, 2020 (virtual meeting).
- Invited Expert Participant, World Health Organization Strategic Information and Key Populations Consultation, Geneva, November 22, 2019 (remote participation).
- Invited Expert Participant, UNAIDS expert consultation on developing a stigma index for people living with HIV, Geneva, November 15 and 22, 2019 (remote participation).
- Program Committee Member, 33rd New England Statistics Symposium, 2019.
- Invited Presenter, CDC Expert Consultation on Advancing Methods for Biobehavioral Surveys, Atlanta, GA, September 17, 2018.
- Invited Discussant, National Academy of Science Workshop on Improving Health Research on Small Populations, Washington, DC, January 18, 2018.
- Invited Presenter, US State Department Consultation on Human Trafficking, Washington, DC, June 2, 2017.
- Invited Presenter, CDC Consultation on Population Size Estimation, Atlanta, GA, January 31, 2017
- Advisory Board Member: MassMutual Data Science Development Program, 2015-2017.
- NSF Review Panel for Network Statistics February 13-14, 2017.
- Host and Co-Organizer: UNAIDS Workshop on Population Size Estimation, Amherst, MA, June 9-10, 2014.
- Program Leader: SAMSI 2013-14 Program on Computational Methods in Social Science.
- Task Force Member: American Association for Public Opinion Research Task Force on Non-Probability Sampling, 2012-2013.
- Invited Presenter, Centers for Disease Control and Prevention (CDC) Consultation on Respondent-Driven Sampling, August 20-1, 2012.
- Credited Reviewer, National Research Council Report on Unauthorized Immigration Methods, 2012.
- Consultant on Respondent-driven Sampling data and methodology sponsored by CDC Vietnam and FHI Vietnam, Hanoi, Vietnam, June 20-4 2011.
- Journal Reviewer (many journals).

Departmental

- Departmental Climate Committee Fall 2019-present (Chair)
- Departmental Space Committee Spring 2019-present (current chair)
- Departmental Strategic Planning Committee Spring 2018-present
- Statistics Faculty Search Committee 2013-14, 2014-15, 2017-18, 2018-19
- Departmental Personnel Committee 2016-17, 2018-19
- Department Head Search Committee 2017
- Statistics Graduate Admissions Chair, Spring 2016
- Predictive Modeling Faculty Search Committee, 2015-16
- Undergraduate Affairs Committee 2014
- Topology Faculty Search Committee 2012-13
- Graduate Affairs Committee 2011-12, 2012-13
- Statistics and Probability Seminar Organizer 2010-2013
- Exam Committees, twice annually

Extra-Departmental, University of Massachusetts

- Co-Director, Statistical Consulting and Collaboration Services 2016-present*
*Located within the department but provides services to the larger campus and beyond.
- Co-Convener, Social Science Statistics Reading Group 2017-present

- Data Analytics and Computational Social Science program Governance Board 2019-present
- Computational Social Science Institute Steering Committee 2015-present
- Co-organizer, Computational Social Science Seminar Series, 2011-2013