Kimberly F. Sellers

(as of June 1, 2026)

Department of Statistics
North Carolina State University
509 SAS Hall, 2311 Stinson Drive
Raleigh, NC 27695

Phone: 919-515-1921
kimberly_sellers@ncsu.edu
https://www.kimflaggsellers.com/

Leadership Experience

Head and Professor, Department of Statistics, NC State University: 8/2023 – present

- Lead a department with 45 faculty and staff and approximately 575 students, including a graduate program ranked #18 in the country (according to US News and World Reports) and #27 in the world (according to Shanghai Ranking's Academic Ranking of World Universities)
- Supervise an annual budget over $7M
- Establish and guide faculty and staff towards a departmental strategic vision that produced departmental bylaws, and modernizing curricula across all programs (undergraduate, Masters, PhD) to incorporate data science, and statistical and machine learning
- Lead increasing departmental fundraising efforts averaging over $31K annually
- Determine departmental leadership infrastructure and committee assignments
- Manage departmental reappointment, tenure, and promotion review cases
- Codified standards and procedures for professional track faculty
- Established departmental communications system (social media, newsletter)
- Established professional development workshop series for Statistics students at all levels (undergraduate, Masters, PhD)
- Exhibit and utilize strong management skills, including crisis management, problem-solving, and interpersonal relations

Chair, Statistics Committee, Georgetown University: Fall 2007–Summer 2012, Fall 2015–Summer 2016

- Grew the Statistics group from 1 to 6 full time (4 tenure-line; 2 full-time contract) faculty, personally recruiting two of the existing members to join the department
- Led the organization of statistical responsibilities for the department, including teaching assignments for subsequent semesters
- Organized and led peer mentorship and professional development discussions among Statistics faculty
- Competed successfully for funding from the Vice Provost for Research Office to support equipment and infrastructure expenditures for the Statistics group

Chair, Statistics Hiring Committee (tenure line), Georgetown University: Fall 2015–Spring 2016

- Organized and led regular committee meetings to develop, distribute, and publicize the hiring announcement; review applicant submissions; and prioritize faculty hire selections
- Collected and monitored faculty application submissions
- Scheduled and organized on-site interviews
- Communicated with candidates at all levels throughout the review process

Chairperson (1/2024-12/2025) and Vice-Chairperson (1/2022-12/2023), ASA External Nominations and Awards Committee

- Led initiatives to identify and encourage nominations for ASA members in larger, external body organizations or award considerations as a means of getting statisticians recognized in the broader scientific community
- Led monthly committee meetings of 10 members representing academia, government, and industrial statisticians
- Updated committee logistics and communications infrastructure to allow for easier maintenance of institutional knowledge and transitioning among committee chairs and members

Co-Chairperson, Georgetown College DEI Task Force: 9/2022–7/2023

- Invited by Dean Rosario Ceballo to co-lead committee comprised of 12 faculty and 2 students
- Established meeting framework, and led committee meetings
- Producing report for Dean Ceballo highlighting concrete, actionable steps that the College can do (whether immediate or long-term) to promote DEI for faculty, staff, and (graduate and undergraduate) students

Inaugural Chairperson, American Statistical Association (ASA) Justice, Equity, Diversity, and Inclusion (JEDI) Outreach Group: 1/2021-12/2022

- Established Outreach Group framework, including committees, institutional documents and guidelines, website and social media presence, etc.
- Grew membership to approximately 300 members in its first year; current membership over 450
- Identified leadership team members to serve as committee chairpersons for the Communications, Program, Professional Development, Student & Young Professionals, Awards, and Liaison Committees
- Established the JEDI Outreach Group as a potential sponsor for Joint Statistics Meetings conference sessions
- Established partnerships with the Eastern North Atlantic Region (ENAR) and the Western North Atlantic Region (WNAR) of the International Biometric Society such that both organizations have included a representative from the JEDI Outreach Group to serve on their respective Conference Program Committees, reviewing invited session proposals and assessing them with regard to diversity, equity, and inclusion (DEI)
- Publicized JEDI Outreach Group efforts both within and outside of the ASA through *Amstat News*, the Outreach Group website, and social media
- Established *The JEDI Corner* – a monthly mainstay feature in *Amstat News* for submissions that address any aspect of justice, equity, diversity, and/or inclusion in the discipline
- Organized and led regular leadership team, Executive Board, and general body meetings

Chairperson, ASA Committee on Women in Statistics (COWIS): 1/2017–12/2018

- Co-organized Women in Statistics and Data Science 2017 and 2018 conferences
- Established daily woman statistician features in conjunction with Women's History Month (WHM) throughout March
- Established social media (Facebook, Twitter) accounts on behalf of COWIS to promote activities and increase visibility
- Met with ASA Membership Council, reporting COWIS activities and reporting committee suggestions for larger ASA Executive Council (e.g. including WHM feature in *Amstat News*, along with other features for other History Months including Black History Month, Hispanic Heritage Month, LGBTQ+ Month, etc.; *Amstat News* now includes these features in their publications)
- Organized and led quarterly committee meetings
- Led the COWIS in other efforts affecting women in statistics and data science

Academic Positions

08/23 – present	Head and Professor, Department of Statistics, North Carolina State University, Raleigh, NC.
09/15 – 05/25	Principal Researcher, Center for Statistical Research and Methodology Division (CSRM), U.S. Census Bureau, Washington, DC
06/24 – 06/25	Affiliate, Department of Mathematics and Statistics, Georgetown University, Washington, DC.
08/20 – 05/24	Professor, Department of Mathematics and Statistics, Georgetown University, Washington, DC.
08/12 – 07/20	Associate Professor, Department of Mathematics and Statistics, Georgetown University, Washington, DC.
06/14 – 08/15	Research Fellow, Center for Statistical Research and Methodology, U.S. Census Bureau, Washington, DC.
07/15	Visiting Academic, University of Oxford, Oxford, UK.
08/06 – 07/12	Assistant Professor, Department of Mathematics and Statistics, Georgetown University, Washington, DC.
09/10 – 08/11	Research Fellow, Office of Survey Methods Research, Bureau of Labor Statistics, Washington, DC.
09/04 - 07/06	Assistant Professor, Department of Biostatistics and Epidemiology, Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania, Philadelphia, PA.
08/01 - 08/04	Visiting Assistant Professor, Statistics Department, Carnegie Mellon University, Pittsburgh, PA.

Honors and Awards

- Fellow, Association for Women in Mathematics (2023)
- Black History Month Feature, University of Kentucky (2022)
- Fellow, American Statistical Association (2021)
- Elected Member, International Statistical Institute (2018)
- Finalist, Burroughs Wellcome Career Awards at the Scientific Interface (2002)
- NSF-VIGRE postdoctoral fellowship (2001-2004)

Funding

As Principal Investigator (PI):

- "NSF REU-Sites: Summer Program Advancing Techniques in the Applied Learning of Statistics (SPATIAL-Stats) at Georgetown University", 4/1/23-3/31/26, $230,200.

- "NSA: Summer Program in Research and Learning at Georgetown University", 4/1/23-3/31/24, $98,040.
- "The Summer Program Advancing Techniques in the Applied Learning of Statistics (SPATIAL-Stats)", Delta Kappa Gamma International Educational Foundation, $2,300.
- “Summer Program in Research and Learning (SPIRAL)", American Mathematical Society, $10,000.
- "Developing Flexible Bivariate Distributions For Dispersed Count Data", Georgetown Spring Competitive Grant-in-Aid (Summer 2017-Spring 2019, $850).
- "Senior Faculty Research Fellowship Proposal: Developing The Conway-Maxwell-Poisson Distribution: Distributional Properties and Motivating Statistical Methods", Georgetown Senior Faculty Research Fellowship, (Spring 2018 research leave).
- "Summer Academic Grant Proposal: A Flexible Univariate Time-Series Model for Dispersed Count Data", Georgetown Summer Academic Fellowship (Summer 2017, $10,000).
- "Flexible Univariate Time-Series Model for Dispersed Count Data", ASA/NSF/Census fellowship (U. S. Census Bureau Contract #YA1323-14-SE-0122), 06/1/14 – 08/30/15, $161,729.
- "Regression and Point Process Generalizations via the Conway-Maxwell-Poisson Distribution", Georgetown University Junior Faculty Research Fellowship, 09/1/11 – 12/31/11.
- "Advances with the Conway-Maxwell-Poisson Distribution", American Statistical Association (ASA)/National Science Foundation (NSF)/Bureau of Labor Statistics (BLS) Research Fellowship, 09/1/10 - 08/31/11, $76,859.44.
- "Introducing the Conway-Maxwell-Poisson (COM-Poisson) Process", Georgetown University Summer Academic Grant 2010.
- "Feature Detection in Two-Dimensional Images", Georgetown University Competitive Grant-in-Aid, 2009.
- Association for Women in Mathematics Travel Grant to attend EURISBIS ’09 conference, 6/09, $1,787.85.
- "Infrastructure Proposal: Increased Computing Support", Georgetown University Research Infrastructure Award 2007, PI (co-PIs: Ali Arab, Mahlet Tadesse).
- "Regression and Hypothesis Testing via the Conway-Maxwell-Poisson Distribution", Georgetown University Summer Academic Grant 2007.
- "Automated Low-Level Analysis For Differential Gel Electrophoresis Data", SPORE on Skin Cancer at Penn and Wistar, 07/1/05 - 06/30/06.
- "Getting Something from Nothing: Assessing Information Gain from Lack of Information due to Cell Suppression" (co-PI: Elizabeth Arnold), NISS, 09/1/03 - 05/31/04, $10,000.

As Co-Principal Investigator (Co-PI):

- "International Workshop on Applied Probability: Probability, Statistics and their Applications (IWAP 2025)", 1/1/25-12/31/25, $15,000.
- "Molecular analysis of OSCC tumor invasion", co-PI with Barry Ziober (University of Pennsylvania, PI), NIH (# RO1 DE 019454-01), $21,490, 7/20/09 - 6/30/11.
- "Retinal gene expression and the retinome" (PI: Barbara Zangerl), University of Pennsylvania University Research Foundation, $30,000, 01/1/06 - 12/31/06.

As Statistician/Biostatistician:

- "Inflammation, the metabolic syndrome and atherosclerosis" (Muredach Reilly, PI), NIH, 10/1/04 - 06/30/06.
- "SPORE in Skin Cancer / Biometrics Core" (Meenhard Herlyn, Phyllis Gimotty, PI), NIH-Wistar, 09/30/01 - 06/30/06
- "Human Melanoma-Etiology, Progression and Therapy / Biostatistics Core" (Meenhard Herlyn, David Elder, PI), NIH, 04/06/90 - 06/30/06.

- "caBIG RProteomics Project, Phase I" (David Fenstermacher, PI), NIH, 07/01/05 - 01/31/06.
- "Reactive oxygen species and anti-oxidants in ALI" (Arin Fisher, PI), NIH, 07/01/05 - 06/30/06.

As Consultant:

- "Inflammation, the metabolic syndrome and atherosclerosis" (Muredach Reilly, PI), NIH, 07/1/06 - 05/31/07.

Other:

- Sponsorships from the American Statistical Association:
  - NCSU Bioinformatics Research Center 25th Anniversary Celebration Workshop, June 2026, $2000
  - 11th International Workshop on Applied Probability (IWAP 2025), June 2025, $2000
- Senior Personnel, NSF REU-Sites: Summer Program in Research and Learning (SPIRAL) at American University (Monica Jackson, PI; William Howell, Co-PI), 4/1/22-3/31/23, $2000 (total: $95000).
- Senior Personnel, NSA: Summer Program in Research and Learning, American University (Monica Jackson, PI; William Howell, Co-PI), 4/1/22-3/31/23, $1000 (total: $125,000).
- Data Science Corps External Advisory Committee, "The Data Science WAV: Experiential Learning with Local Community Organizations", NSF (Benjamin Baumer, PI), Award # 1924017, 10/1/19-9/30/22, $581,902 (0% support).
- Global Engagement Faculty Grant – International Travel Grant, "The Conway-Maxwell-Poisson Stochastic Process for Dispersed Count Data", Summer 2019 support to present at ISI World Statistics Congress (Kuala Lumpur, Malaysia), $1250 (Note: while awarded, I later declined award because I received other support covering full conference-associated costs.)
- Senior Personnel (advisor, 0% support) member (Kimberly Weems, PI) "RIA: Modeling Count Data with the Conway-Maxwell-Poisson Distribution", NSF-Historically Black Colleges and Universities - Undergraduate Program (HBCU-UP), 09/01/2017 - 08/31/2019, $185,799
- Senior Personnel member (0% support), REU Sites: Diverse Undergraduate Research Experiences in Statistics (DURES), NSF Research Experiences for Undergraduates (REU).
- Developing Research for Modeling Significantly Dispersed Count Data: A Proposal for Georgetown University Visiting Researchers at Campion Hall, University of Oxford (7/9/15-8/14/15 visitation).
- Travel grant to attend the Workshop for Mentors of Minority Undergraduate Students in Mathematics at the 2014 IAS/Park City Mathematics Institute (PCMI) Summer Session (July 13-19, 2014 in Park City, Utah).
- Travel grant to attend the International Conference on Statistical Distributions and Applications 2013 (ICOSDA 2013) conference ($1000; funded through National Security Agency (NSA))
- Travel grant to attend the Society for Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference 2013 (covered full travel and lodging expenses)
- Invited Contributing Instructor for First Short Course on Statistical Genetics and Genomics (Hemant Tiwari, PI, University of Alabama at Birmingham), NIH: National Institute of General Medical Sciences (NIGMS) Research Education Grant R25-GM093044. 08/1/10-05/31/15.
- Invited Contributing Instructor for Short Course on Statistical Genetics and Genomics (Dr. David Allison, PI, University of Alabama at Birmingham), National Science Foundation (NSF) Grant 0616229, 10/01/07 - 09/30/09.

Education

Ph.D., Statistics	The George Washington University (Washington, DC)	May 2001
M.A., Mathematics	University of Maryland (College Park, MD)	August 1998
B.S., Mathematics	University of Maryland (College Park, MD)	August 1994

Books

1. Sellers KF (2023) *The Conway-Maxwell-Poisson Distribution*, Cambridge University Press.

Refereed Journal Manuscripts

*** = undergraduate collaborator; + = Masters-level collaborator**

1. Huch E, Berrett C, Ferlic M, Sellers KF (2026) Forecasting Count Data With Varying Dispersion: A Latent-Variable Approach, *Journal of Forecasting*, 1–16. https://doi.org/10.1002/for.70119.
2. Sellers, K.F. (2026). Singpurwalla, Nozer D. In *Wiley StatsRef: Statistics Reference Online* (eds N. Balakrishnan, T. Colton, B. Everitt, W. Piegorsch, F. Ruggeri and J.L. Teugels). 1-11. https://doi.org/10.1002/9781118445112.stat08442
3. Sellers KF, Booker, JM (2025) Probability and Fuzzy Working in Concert – Honoring the Reliability Contributions of Nozer D. Singpurwalla, *Applied Stochastic Models in Business and Industry*, 41:1, e2918, https://doi.org/10.1002/asmb.2918
4. De Jesus M, Sullivan N, Hopman W*, Martinez A*, Glenn PD II*, Msopa S*, Milligan B*, Doney N, Howell W, Sellers K, Jackson MC (2023) Examining the Role of Quality of Institutionalized Healthcare on Maternal Mortality in the Dominican Republic, *International Journal of Environmental Research and Public Health*, 20(14), 6413. https://doi.org/10.3390/ijerph20146413.
5. Morris DS, Sellers KF (2022) A Flexible Mixed Model for Clustered Count Data, *Stats*, 5, 52–69. https://doi.org/10.3390/stats5010004.
6. Weems KS, Sellers KF, Li T+ (2021) A Flexible Bivariate Distribution for Count Data Expressing Data Dispersion, *Communications in Statistics - Theory and Methods*, https://doi.org/10.1080/03610926.2021.1999474.
7. Sellers KF, Li T+, Wu Y*, Balakrishnan N (2021) A Flexible Multivariate Distribution for Correlated Count Data, *Stats*, *4*(2), 308-326, https://doi.org/10.3390/stats4020021.
8. Aurora M, Chaganty R, Sellers K (2021) A flexible regression model for zero- and k-inflated count data, *Journal of Statistical Computation and Simulation*, https://doi.org/10.1080/00949655.2021.1872077.
9. Sellers KF, Arab A, Melville S*, Cui F* (2021) A Flexible Univariate Moving Average Time-Series Model for Dispersed Count Data, *Journal of Statistical Distributions and Applications*, https://doi.org/10.1186/s40488-021-00115-2.
10. Sellers KF, Premeaux B*+ (2021). Conway–Maxwell–Poisson regression models for dispersed count data. *WIREs Computational Stat*istics; 13: e1533. https://doi.org/10.1002/wics.1533.
11. Morris DS, Raim AM, Sellers KF (2020). A Conway–Maxwell-multinomial distribution for flexible modeling of clustered categorical data, *Journal of Multivariate Analysis*, vol. 179. https://doi.org/10.1016/j.jmva.2020.104651.
12. Sellers KF, Peng SJ*, Arab A (2020) A Flexible Univariate Autoregressive Time-Series Model for Dispersed Count Data, *Journal of Time Series Analysis* 41 (3), 436-453.
13. Rothman J*+, Jackson MC, Sellers KF, Williams T, Lele SR, Waller LA (2019) Correlation induced by missing spatial covariates: a connection between variance components models and kriging, *Journal of Mathematics and Statistical Science* 5 (12), 333-344.

14. Sellers KF, Young D (2019) Zero-Inflated Sum of Conway-Maxwell-Poissons (ZISCMP) Regression with Application to Shark Distributions, *Journal of Statistical Computation and Simulation*, 89 (9):1649-1673.
15. Sellers KF, Swift A, Weems KS (2017) A flexible count distribution to address dispersion in count data, Journal of Statistical Distributions & Applications, 4: 22. https://doi.org/10.1186/s40488-017-0077-0; and Correction to: a flexible distribution class for count data, Journal of Statistical Distributions & Applications, 4: 23. https://doi.org/10.1186/s40488-017-0078-.
16. Sellers KF, Morris D (2017) Under-dispersion models: models that are "under the radar", *Communications in Statistics – Theory and Methods*, 46 (24): 12075-12086, DOI: 10.1080/03610926.2017.1291976
17. Zhu L*, Sellers KF, Morris DS, Shmueli G (2017) Bridging the Gap: A Generalized Stochastic Process For Count Data, *The American Statistician*, 71 (1): 71-80.
18. Sellers KF, Morris DS, Balakrishnan N (2016) Bivariate Conway-Maxwell-Poisson Distribution: Formulation, Properties, and Inference, *Journal of Multivariate Analysis* 150:152-168.
19. Sellers KF, Raim A (2016) A flexible zero-inflated model to address data dispersion, Computational Statistics and Data Analysis, 99: 68-80.
20. Perrin E, Sellers T, Maxwell LH, Morgan M, Davis S-M, Cook C, Jackson MC, Sellers KF (2015) A Statistical Analysis of Weight Gain During the Freshman Year of College, Journal of Student Research, 4(1): 144-151. http://www.jofsr.com/index.php/path/article/view/214.
21. Veach E, Xique I, Johnson J, Lyle J, Almodovar I, Sellers KF, Moore CT, Jackson MC (2014) Race matters: analyzing the relationship between colorectal cancer mortality rates and various factors within respective racial groups, Frontiers in Public Health, 2:239. doi: 10.3389/fpubh.2014.00239.
22. Jackson MC, Trotman A, Stephens M, Sellers KF (2013) The Effect of Latency Variables on Repeated Measures Inference Applied to the Measurement of Risk-taking as a Function of Psychopathy, Quality and Quantity, 47 (1), 15-26. doi: 10.1007/s11135-011-9475-4.
23. Sellers KF, Shmueli G (2013) Data Dispersion: Now You See It, Now You Don't, Communications in Statistics—Theory and Methods, 42 (17), 3134-3147.
24. Sellers KF (2012) A distribution describing differences in count data containing common dispersion levels, Advances and Applications in Statistical Sciences, 7 (3), 35-46.
25. Sellers KF, Borle S, Shmueli G (2012) The COM-Poisson Model for Count Data: A Survey of Methods and Applications, Applied Stochastic Models in Business and Industry, 28, 104–116. DOI: 10.1002/asmb.918
26. Sellers KF (2012) A generalized statistical control chart for over- or under-dispersed data, Quality Reliability Engineering International, 28 (1), 59-65.
27. Thompson, W, McGinnis, S, McDaniel, D, Sexton J, Pettit, R, Anderson, S, Sellers KF, Jackson M (2011) A Geographical and Statistical Analysis of Childhood Leukemia Deaths Relating to the Locations of Nuclear Power Plants, Advances and Applications in Statistical Science, 6 (5), 313-327.
28. Miecznikowski JC, Sellers KF, Eddy WF (2011) Multidimensional Median Filters for Finding Bumps in Chemical Sensor Datasets, Journal of Sensor Technology, 2 (1), 23-37. DOI: 10.4236/jst.2012.21005
29. Miecznikowski JC, Damodaran S, Sellers KF, Rabin RA (2010) A practical approach to the analysis of two-dimensional electrophoresis data: imputation and univariate statistical analysis, Proteome Science, 8:66; doi:10.1186/1477-5956-8-66. [Correction in author list to Miecznikowski JC, Damodaran S, Sellers KF, Coling DE, Salvi R, Rabin RA (2011) Proteome Science 2011, 9:14; doi:10.1186/1477-5956-9-14.]
30. Sellers KF, Shmueli G (2010) A Flexible Regression Model for Count Data, *Annals of Applied Statistics*, 4(2), 943-961.
31. Sellers KF, Miecznikowski JC (2010) Feature Detection Techniques for Preprocessing Proteomic Data, *International Journal of Biomedical Imaging*, vol. 2010, Article ID 896718, 9 pages. doi:10.1155/2010/896718

32. Jackson MC, Johansen L, Colson A, Furlong C, Sellers KF (2010) Modelling the effect of climate change on prevalence of malaria in Western Africa, *Statistica Neerlandica*, 64(4), 388-400. doi:10.1111/j.1467-9574.2010.00453.x
33. Sellers KF, Singpurwalla ND (2008) Many-valued Logic in Vague and Multi-state Stochastic Systems, *International Statistical Review*, 76 (2), 247-267.
34. Jackson MC, Sellers KF (2008) Simulating Discrete Spatially Correlated Poisson Data on a Lattice, *International Journal of Pure and Applied Mathematics*, 46 (1), 137-154.
35. Sellers KF, Miecznikowski JC, Viswanathan S, Eddy WF, Minden J (2007) Lights, Camera, Action: Quantitative Analysis of Systematic Variation in Two-dimensional Difference Gel Electrophoresis, *Electrophoresis,* 28 (18), 3324-3332.
36. Anderson PD, Mehta N, Wolfe ML, Hinkle CC, Pruscino L, Comiskey LL, Tabita-Martinez J, Sellers KF, Rickels MR, Ahima RS, Reilly MP (2007) Innate Immunity Modulates Adipokines in Humans, *The Journal of Clinical Endocrinology and Metabolism,* 92 (6), 2272-2279.
37. Makar GA, Weiner MG, Kimmel SE, Bennett D, Burke A, Yang Y-X, Han X, Sellers K, Nessel L, Lewis JD (2007) Incidence and prevalence of abnormal liver associated enzymes in patients with atrial fibrillation in a routine clinical care population, *Pharmacoepidemiology and Drug Safety*, 17 (1), 43-51.
38. Gimotty PA, Elder DE, Fraker DL, Botbyl JD, Sellers K, Elenitsas R, Ming ME, Schuchter L, Spitz FR, Czerniecki BJ, Guerry D (2007) Identification of high- risk patients among those diagnosed with thin cutaneous melanomas, *Journal of Clinical Oncology,* 25 (9), 1129-1134.
39. Paez GL, Sellers KF, Band M, Acland GM, Zangerl B, Aguirre GA (2006) Characterization of Gene Expression Profiles on Normal Canine Retina and Brain Using a Retinal cDNA Microarray, *Molecular Vision*, 12, 1048-1056.

Refereed Book Chapters

1. Sellers KF (2026) Singpurwalla, Nozer D., *Wiley StatsRef: Statistics Reference Online*, accepted.
2. Tractenberg RE, Sellers KF (2022) Small Data, *Encyclopedia of Big Data* (Laurie A. Schintler and Connie L. McNeely, eds.), Springer.
3. Miecznikowski JC, Sellers KF (2012) Statistical Analysis of Chemical Sensor Data, *Advances in Chemical Sensors*, Wen Wang (Ed.), ISBN: 978-953-307-792-5, InTech.
4. Sellers KF, Miecznikowski JC (2012) Statistical Analysis for Gel Electrophoresis Data, *Gel Electrophoresis—Principles and Basics*, Dr. Samen Magdeldin (Ed.), ISBN 978-953-51-0458-2, InTech.
5. Paez GL, Zangerl B, Sellers KF, Acland GM, Aguirre GA (2008) Characterization of gene expression profiles on normal canine retina and brain using a retinal cDNA microarray, *Advances in Experimental Medicine and Biology*, doi:10.1007/978-0-387-74904-4_20.
6. Sellers KF, Booker JM (2002). Chapter 4: Bayesian Methods, *Fuzzy Logic and Probability Applications*. Ross, T.J., Booker, J.M., and Parkinson, W.J., eds. ASA-SIAM Publications; Philadelphia, PA., 73-86.
7. Ross TJ, Sellers KF, Booker JM, Parkinson WJ (2002). Chapter 5: Considerations for Using Fuzzy Set Theory and Probability Models, *Fuzzy Logic and Probability Applications*. Ross, T.J., Booker, J.M. and Parkinson, W.J., eds. ASA-SIAM Publications; Philadelphia, PA., 87-103.

Computational Packages

*** = undergraduate collaborator; + = Masters-level collaborator**

1. Sellers K, Lotze T, Raim A; COMPoissonReg: Conway-Maxwell-Poisson Regression, http://cran.r-project.org/web/packages/COMPoissonReg/index.html

- Versions 0.8.0 (2021), 0.7.0 (2019), 0.6.1 (2018), 0.6.0 (2018), 0.4.1 (2017), 0.4.0 (2017)

2. Zhu L[*], Sellers K, Morris D, Shmueli G, Davenport D[+]; cmpprocess: Flexible Modeling of Count Processes, https://cran.r-project.org/web/packages/cmpprocess/index.html
   - Versions 1.1 (2020), 1.0 (2017)
3. Sellers KF, Morris D, Balakrishnan N, Davenport D[+]; multicmp: Flexible Modeling of Multivariate Count Data via the multivariate Conway-Maxwell-Poisson distribution, https://cran.r-project.org/web/packages/multicmp/index.html
   - Versions 1.1 (2018), 1.0 (2017)
4. Sellers K, Lotze T; COMPoissonReg: Conway-Maxwell Poisson (COM-Poisson) Regression, https://cran.r-project.org/web/packages/COMPoissonReg/index.html.
   - Versions 0.3.5 (2015), 0.3.4 (2011), 0.3.3 (2011), 0.3.2 (2011), 0.2.1 (2011), 0.1.1 (2010)
5. Sellers K, Costa L[*]; CMPControl: Control Charts for Conway-Maxwell-Poisson Distribution, http://cran.r-project.org/web/packages/CMPControl/index.html
   - Version 1.0 (2014)
6. Chandrasekhar R, Miecznikowski JC, Gaile DP, Govindaraju VR, Bright FV, Sellers KF (2009) Xerogel, version 0.0; https://sphhp.buffalo.edu/biostatistics/research-and-facilities/software/xerogel.html

Conference Proceedings

*** = undergraduate collaborator; + = Masters-level collaborator**

1. Morris DS, Raim AM, Sellers KF (2018) Introducing a Conway-Maxwell-Multinomial Distribution for Flexible Modeling of Categorical Data, JSM Proceedings 2018, Vancouver, Canada.
2. Morris D, Sellers KF (2017) A COM-Poisson mixed model with normal random effects for clustered count data, *61st ISI World Statistics Congress Proceedings*, Marrakech, Morocco.
3. Morris DS, Sellers KF, Menger A[*](2017) Fitting a Flexible Model for Longitudinal Count Data Using the NLMIXED Procedure, SAS Global Forum Proceedings Paper 202-2017, SAS Institute: Cary, NC. http://support.sas.com/resources/papers/proceedings17/0202-2017.pdf.
4. Sellers KF (2011) Introducing a model to determine true counts via the Conway-Maxwell-Poisson distribution, *Proceedings of the 26th International Workshop on Statistical Modelling*, July 11-15, 2011; D. Conesa, A. Forte, A. Lopez-Quilez, eds.; Valencia, Spain, 548-552.
5. Sellers KF (2011) Introducing a generalized statistical control chart for over- or under-dispersed count data, *The 7th International Conference on Mathematical Methods in Reliability – Theory, Methods, Applications*; L. Cui and X. Zhao, Eds., Beijing Institute of Technology Press, Beijing China, 1-6.
6. Sellers KF, Shmueli G (2009) A Regression Model for Count Data with Observation-level Dispersion, *Proceedings of the International Workshop on Statistical Modeling, July 20-24, 2009*, Cornell University, Ithaca, NY, 337-344.
7. Sellers KF (2001) A Definition of Vague Coherent Systems, *Contemporary Mathematics -- Council for African American Researchers in the Mathematical Sciences: Volume IV*. Sixth Conference for African American Researchers in the Mathematical Sciences June 27-30, 2000, Morgan State University, Baltimore, Maryland. N'Guérékata, G. and Nkwanta, A., eds. American Mathematical Society, Providence, RI. 284: 43-51.
8. Sellers KF (2000) Vague Coherent Systems (Preliminary Report), *MMR 2000: Second International Conference on Mathematical Methods in Reliability (Methodology, Practice and Inference), Université Victor Segalen-Bordeaux 2, Bordeaux, France, July 4-7, 2000 Abstracts Book, Volume 2*. p. 952-955.

Technical Reports

1. Raim AM, Sellers KF (2022) COMPoissonReg: Usage, the Normalizing Constant, and Other Computational Details, CSRM Research Report Series (Computing), U.S. Census Bureau (RRC2022/01). https://www.census.gov/library/working-papers/2022/adrm/RRC2022-01.html . November 9, 2022.
2. Sellers KF, Miecznikowski J, Eddy WF (2004) Removal of Systematic Variation in Genetic Microarray Data, Technical report 779, Carnegie Mellon University, Pittsburgh PA.
3. Bement TR, Booker JM, Sellers KF, Singpurwalla ND (2001). Linking Probability Theory and Fuzzy Sets -- A Study in Uncertainty Assessment. Technical report LA-UR-01-4679, Los Alamos National Laboratory, Los Alamos, NM. Submitted to: 43rd Structures, Structural Dynamics and Materials Conference, Denver CO, April 22-25, 2002.
4. Bement TR, Booker JM, Sellers KF, Singpurwalla ND (2000). Membership Functions and Probability Measures of Fuzzy Sets. Technical report LA-UR-00-3660, Los Alamos National Laboratory, Los Alamos, NM.

Replies and Rejoinders

*** = undergraduate collaborator; + = Masters-level collaborator**

1. Sellers KF, Morris DS, Shmueli G, Zhu L* (2017) Reply: Models for Count Data, *The American Statistician*, 71(2), 190.
2. Sellers KF, Borle S, Shmueli G (2012) Rejoinder: The COM-Poisson Model for Count Data: A Survey of Methods and Applications, Applied Stochastic Models in Business and Industry, 28, 128–129. DOI: 10.1002/asmb.1923

Other Manuscripts

1. Sellers K, Bhattacharyya A, Cappelleri J, Rao A, Batcher M, Bellamy S, Holt G, Price K, Zhong W, Pierson S. "Committee Works to Recognize Excellence Beyond Statistics, Data Science Communities", Amstat News, November 2024.
2. Gamerman V, Kolassa J, Li JZ, Natanegara F, Sellers K, Talwai A, Zou KH. "A Recap of an ICSA 2021 Panel: Statistics and Data Science Partnerships and Collaborations across Sectors", *Amstat News*, February 2022.
3. Gamerman V, Kolassa J, Li JZ, Natanegara F, Sellers K, Talwai A, Zou KH. "A Recap of an ICSA 2021 Panel: Statistics and Data Science Partnerships and Collaborations across Sectors", *Amstat News*, January 2022.
4. Sellers, KF. "The JEDI Corner: How to Help Advocate for Justice, Equity, Diversity, and Inclusion", *Amstat News*, October 2021.
5. Sellers, KF. ISBIS blog (November 26, 2017), "Sharing WISDOM at the Women in Statistics and Data Science Conference", https://blogisbis.wordpress.com/2017/11/26/sharing-wisdom-at-the-women-in-statistics-and-data-science-conference/
6. Sellers KF, Benn EKT, Garcia M, Kellam M (2017) Addressing Implicit Bias Among Women Statisticians and Data Scientists, *Chance* 30 (2): 38-41, DOI: 10.1080/09332480.2017.1320477.
7. Sellers KF, Meyer KN, Terres MA, Tyner S, Woo K (2014) Surviving Graduate School: What Happens in Session, Stays in Session, *Chance*, 27(4), 23-25.

Works in Progress

*** = undergraduate collaborator; + = Masters-level collaborator; & = PhD collaborator**

1. Meyer MJ, Graye A*, Sellers KF (2026) On Non- and Weakly-Informative Priors for the Conway-Maxwell-Poisson (COM-Poisson) Distribution, revised and resubmitted, https://arxiv.org/abs/2311.18053.
2. Glynn G*, Dovel C*, Heyward J*, Alvarez-Sagrero I*, White C*, Sellers KF (2026) Statistical Computing via the Generalized Conway-Maxwell-Poisson Distribution, under review.
3. Ghosh S, Boakye T&, Sellers KF (2026) Semiparameteric Regression Models based on Zero Altered Distributions, working paper.
4. Sellers KF, Winters A* (2026) Developing a Regression Model for Zero-inflated and Right-Censored Discrete Data, working paper.
5. Boakye T&, Ghosh S, Sellers KF (2026) Bayesian Semiparametric Regression for Count Data Using Zero Altered Moment Models", working paper
6. Lotspeich S, Sellers KF (2026) Correcting for missing and mismeasured components in the allostatic load index to model healthcare utilization, working paper

Invited Talks

Research:

1. "Dispersed Methods for Handling Dispersed Count Data", Department of Mathematics, Morehouse College, February 13, 2026.
2. Keynote speaker, "Dispersed Methods for Handling Dispersed Count Data", Shenandoah Undergraduate Mathematics and Statistics (SUMS) Conference, James Madison University, 11/25.
3. Discussant, "Modeling Power Outages under a Random Environment: A Bayesian Approach", ISBIS ASMBI Invited Discussion Session, ISI World Statistical Congress, The Hague, Netherlands, 10/25.
4. "Count on Statistics for Investigation and Decision-Making", Lucian Symposium 2025, St. Edward's University, Austin, TX, 9/25.
5. "Count on Me to Write a Mathematics/Statistics Book", ICERM Public Lecture, Providence, RI, 11/24.
6. Invited Speaker, "Multivariate Approaches Towards Modeling Count Data", International Conference on Advances in Interdisciplinary Statistics and Combinatorics (AISC), Greensboro, NC, 10/24.
7. "Dispersed Regression Models for Dispersed Count Data", Black Heroes in Mathematics Conference (virtual), London, England, 10/24.
8. Plenary speaker, "Dispersed Methods for Handling Dispersed Count Data", Conference for African American Researchers in the Mathematical Sciences (CAARMS 2024), 6/24.
9. "Flexible Regression Models for Dispersed Count Data", Summer Program in Research and Learning (SPIRAL) 2024, Georgetown University, Washington, DC, 6/24.
10. "Bivariate COM-Poisson Distributions" (virtual), Workshop on Discrete Distributions in Memory of A. F. Kemp, Athens, Greece, 4/24.
11. "Flexible Regression Models for Dispersed Count Data", Department of Statistical Sciences Colloquium, Wake Forest University, 3/24.

12. Panelist, "Data Driven: Leadership Avenues and Advantages for Quantitative Thinkers", Conference for Statistical Practice, New Orleans, LA, 2/24.
13. virtual with Monica Jackson, William Howell, Maria DeJesus; "Examining the Role of Quality of Institutionalized Healthcare on Maternal Mortality in the Dominican Republic", Department of Mathematics and Statistics Seminar Series, American University, 10/23.
14. "Dispersed Methods for Handling Dispersed Count Data", Department of Statistics, Brigham Young University, 9/23.
15. Keynote speaker, "Flexible Regression Models for Dispersed Count Data", Biostatistics Department, New York University, 12/22.
16. Keynote speaker, "You Count! (and, believe me... I should know!)", Field of Dreams Conference 2022, Minneapolis, MN, 11/22.
17. Plenary speaker, "Dispersed Methods for Handling Dispersed Count Data", International Conference on Statistical Distributions and their Applications (ICOSDA 2022), Huntington, WV, 10/22.
18. Keynote (virtual): "Dispersed Methods for Handling Dispersed Count Data" 4th International Conference on Statistics: Theory and Applications (ICSTA), Prague, Czech Republic, 7/22.
19. "Regression Analysis for Dispersed Count Data", Summer Program in Research and Learning, American University, Washington, DC, 6/22.
20. "A Flexible Regression Model for Dispersed Count Data", University of Florida Biostatistics, 9/21.
21. "Flexible Regression Models for Dispersed Count Data", SPIRAL program, American University, 6/21 (virtual).
22. "A Flexible Regression Model for Dispersed Count Data", Joint Seminar – Department of Statistics, and Department of Biostatistics, Northwestern University, 4/21 (virtual).
23. "Analyzing Count Data Expressing Data Dispersion", DC R Conference: The Government & Public Sector, 12/20 (virtual).
24. "Flexible Regression Models for Dispersed Count Data", Slippery Rock University, 11/20 (virtual).
25. "Flexible Regression Models for Dispersed Count Data", Summer Program in Research and Learning (SPIRAL) and Summer Program Advancing Techniques in the Applied Learning of Statistics (SPATIAL-Stats) Colloquium (virtual), American University, Washington, DC, 6/20.
26. "Flexible Regression Models for Dispersed Count Data", International Conference on Statistical Distributions and Applications, Grand Rapids, MI, 10/19.
27. "The Conway-Maxwell-Poisson Stochastic Process for Dispersed Count Data", "Recent Developments in Discrete Model" session, Invited Paper Session, 2019 ISI World Statistics Congress, Kuala Lumpur, Malaysia, 8/19.
28. "Flexible Regression Models for Dispersed Count Data", Invited Statistical Sciences Seminar Series, Statistical Sciences group, Los Alamos National Laboratory, Los Alamos, NM, 8/19.
29. "Flexible Regression Models for Dispersed Count Data", Conference for African-American Researchers in the Mathematical Sciences (CAARMS), Princeton University, 6/19.
30. "The Conway-Maxwell-Poisson Stochastic Process for Dispersed Count Data", Summer Program in Research and Learning, American University, 6/19.
31. "Introducing a flexible bivariate distribution for dispersed discrete data", Ohio State University Statistics Department, 11/18.
32. Plenary speaker, "CSI: Count on Statistics for Investigation", Shenandoah Undergraduate Mathematics and Statistics (SUMS) conference, James Madison University, 10/18
33. Plenary speaker, "Count on Statistics (but not necessarily via Poisson)!", Women's Intellectual Network Research Symposium, University of Virginia, 9/18.

34. Discussant, "Joe Hilbe: A Statistician Who Counted!", Joint Statistical Meetings, Vancouver, Canada, 8/18.
35. "Bivariate Conway-Maxwell-Poisson Distribution: Formulation, Properties, and Inference", The LmB Conference on Multivariate Count Analysis, Besançon, France, 7/18.
36. "Don't Count on Poisson: The Conway-Maxwell-Poisson Regression for Dispersed Count Data", North Carolina Central University Department of Mathematics & Physics, 11/17.
37. "Introducing the zero-inflated Conway-Maxwell-Poisson model for dispersed count data", Advanced Topics in Zero-inflated Regression Models (topic-contributed session), Joint Statistical Meetings 2017, Baltimore, MD, 8/17.
38. "Bivariate Conway-Maxwell-Poisson Distribution: Formulation, Properties, and Inference", Invited Session: Uni-Multivariate Count Dispersion and Applications, International Statistical Institute 61st World Statistics Congress, Marrakech, Morocco, 7/17.
39. "Underdispersion models: models that 'fly under the radar'", International Chinese Statistical Association Applied Symposium, Chicago, IL, 6/17.
40. "Introducing Flexible Regression Models for Count Data", Georgetown Econometrics Workshop, Georgetown University, Washington, DC, 5/17.
41. "Don't Count on Poisson: Introducing the Conway-Maxwell-Poisson distribution for statistical methods regarding count data", "The many facets of statistics – applied, pure and BIG" (Invited Session), 2017 Association for Women in Mathematics (AWM) Research Symposium, University of California Los Angeles (UCLA), Los Angeles, CA, 4/17.
42. "Introducing the Conway-Maxwell-Poisson distribution", International Conference on Statistical Distributions and Applications (ICOSDA) 2016, 10/16.
43. "Bivariate Conway-Maxwell-Poisson Distribution: Formulation, Properties, and Inference", Session: Discrete Distributions, ODRS 2016: Conference on Ordered Data and their applications in Reliability and Survival Analysis, McMaster University, 8/16.
44. "Don't Count on Poisson: Introducing the Conway-Maxwell-Poisson distribution", Summer Program in Research and Learning (SPIRAL), Morgan State University, Baltimore, MD, 7/16.
45. "Introducing the Bivariate Conway-Maxwell-Poisson Distribution", Modeling Multivariate Count Data: Multivariate Extensions and Generalizations of Standard Count Distributions -- Topic Contributed Papers, Joint Statistics Meetings 2016, Chicago, Illinois, 7/16.
46. "Flexible models for underdispersed count data", New advances in underdispersed count data analysis, 2016 International Biometric Conference (IBC 2016) – Invited Session, Victoria, British Columbia, Canada, 7/16.
47. "A generalized statistical control chart for over- or under-dispersed data", SAMSI Workshop on Games and Decisions in Reliability and Risk, Statistical and Applied Mathematical Sciences Institute) in Research Triangle Park, North Carolina, 5/16.
48. "A Flexible Regression Model for Count Data", Departmental seminar, Department of Statistics, University of Kentucky, Lexington, KY, 12/15.
49. "A Flexible Regression Model for Count Data", Minisymposium honoring Dianne O'Leary, SIAM Conference on Applied Linear Algebra; Atlanta, GA; 10/15.
50. "Don't Count on Poisson: Introducing a flexible alternative distribution to model count data", 2015 Morehouse Mathematics Fair, Morehouse College, Atlanta, GA, 10/15.
51. "A Flexible Regression Model for Count Data", Department of Mathematical Sciences, George Mason University, 9/15.
52. "Don't Count on Poisson: Accounting for Dispersion in Count Data Modeling", Center for Statistical Research & Methodology Seminar Series, The U.S. Census Bureau, 4/15.
53. "A Flexible Regression Model for Count Data", Office of Biostatistics Research, NHLBI/NIH, 4/15.

54. "Don’t Count on Poisson! Introducing the Conway-Maxwell-Poisson distribution to model count data", Institute for Integrating Statistics in Decision Sciences, Department of Decision Sciences, The George Washington University; Washington, DC; 1/15.
55. "Modeling counts via the Conway-Maxwell-Poisson distribution for the health of it!", Topic Contributed Session: New methods of modeling count data and it’s impact on the future analysis of health data, Joint Statistical Meetings (JSM) 2014, Boston, MA, 8/14.
56. "Introducing the Conway-Maxwell-Poisson Distribution to Model Count Data", Count Data Modeling and Analysis Workshop, LMB Trimester, Besançon, France, 7/14.
57. "A generalized statistical control chart for over- or under-dispersed data", Department of Information Systems, Statistics and Management Science, University of Alabama, 4/14.
58. "Don't Count on Poisson: Introducing a Generalized Count Distribution for Dispersed Count Data", Virginia State University, 3/14.
59. "Don't Count on Poisson: Introducing the Conway-Maxwell-Poisson distribution", Discrete Distribution Theory and Applications, Ordered Data Analysis, Models and Health Research Methods Conference, University of Texas at Dallas, 3/14.
60. "Don't Count on Poisson: Introducing the Conway-Maxwell-Poisson distribution", Women in Math seminar, University of Maryland, College Park, MD, 2/14.
61. "Don't Count On the Poisson Distribution: Introducing a Generalized Distribution Model for Count Data and Its Use in Various Applications", Society for Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference 2013, San Antonio, TX, 10/13.
62. "Introducing the Conway-Maxwell-Skellam distribution for differences in count data containing common dispersion levels", International Conference on Statistical Distributions and Applications (ICOSDA 2013), Mt. Pleasant, MI, 10/13.
63. "Statistical Advancements Using the COM-Poisson Distribution", 12th Annual Conference of the European Network for Business and Industrial Statistics (ENBIS 12), University of Ljubljana, Slovenia, 9/12.
64. "A Regression Model for Count Data", Cornell University Research Experiences for Undergraduates Program, Ithaca, NY, 6/12.
65. "Statistical Analysis of Mass Spectrometry Data", Short Course: Applications of Mathematics to Biology, Infinite Possibilities Conference 2012, University of Maryland Baltimore County, Baltimore MD, 3/12.
66. "A Flexible Regression Model for Count Data", Georgetown Quantitative Models Working Group, Georgetown University, Washington DC, 10/11.
67. "Advances with the Conway-Maxwell-Poisson Distribution, Part II", Office of Survey Methods Research, Bureau of Labor Statistics, Washington DC, 10/11.
68. "Regression Models for Count Data" Summer Program in Research and Learning (SPIRAL) program, University of Maryland, College Park MD, 6/11.
69. "Statistical Methods for Analyzing Dispersed Count Data", Mathematics Colloquium, Morgan State University, Baltimore MD, 2/11.
70. (poster) "Generalized Statistical Methods via the Conway-Maxwell-Poisson Distribution". 2010 Blackwell-Tapia Conference, Ohio State University, Columbus OH, 11/10.
71. "Advances with the Conway-Maxwell-Poisson Distribution", Office of Survey Methods Research, Bureau of Labor Statistics, Washington DC, 11/10.
72. "Statistical Methods for Count Data Containing Data Dispersion", GW 75th Anniversary Symposium, 9/10.
73. "Regression Models for Dispersed Count Data", 16th annual Conference for African-American Researchers in the Mathematical Sciences, Baltimore MD, 6/10.

74. "Regression Models for Count Data with Constant or Observation-Level Dispersion", Joint Research Conference on Statistics in Quality, Industry, and Technology, National Institute of Standards and Technology (NIST), Gaithersburg MD, 5/10.
75. "Conway-Maxwell-Poisson (COM-Poisson) Regression", Infinite Possibilities Conference (IPC 2010), UCLA, Los Angeles CA, 3/10.
76. "Filling the Gap: Introducing the Conway-Maxwell-Poisson Regression", George Washington University Statistics Department Seminar, 9/09.
77. "Feature Detection Techniques for Proteomic Data Analysis", Invited Session: Extracting Information from Images (Session Sponsor: Section on Physical and Engineering Sciences), 2009 Joint Statistical Meeting, Washington DC, 8/09.
78. "Conway-Maxwell-Poisson Regression: A Flexible Regression Tool for Count Data", European Regional Meeting of the International Society
for Business and Industrial Statistics (EURISBIS 2009), Cagliari Italy, 5/09.
79. "Introducing Conway-Maxwell-Poisson Regression for Modeling Count Data", Statistical and Applied Mathematical Sciences Institute (SAMSI) Special Workshop: 2008 Blackwell-Tapia Conference, Research Triangle Park NC, 11/08.
80. "A Flexible Model for Count Data: Developing the Conway-Maxwell-Poisson Regression Model", eMarkets Research Lab, Department of Decision, Operations & Information Technologies, Robert H. Smith School of Business, University of Maryland College Park, 3/08.
81. "Proteomic Data Analysis 101", Caucus for Women in Statistics Breakfast Roundtable, JSM 2007, Salt Lake City UT, 8/07.
82. "Modeling and Spot Detection of Two-Dimensional Gels", Interface 2007, Philadelphia PA, 5/07.
83. Invited Discussant, "Challenges Facing the Next Generation of Applied Statisticians", Joint Statistics Meetings 2006, Seattle WA, 8/06.
84. "Image Normalization and Feature Detection in Proteomic Studies", Mathematics Departmental Seminar, Georgetown University, Washington DC, 2/06.
85. "Image Normalization and Feature Detection in Proteomic Studies", Mathematics and Statistics Departmental Seminar, American University, Washington DC, 2/06.
86. "Removing Variation: The Search for the Truth", Applied Mathematics and Statistics Department, University of Maryland Baltimore County, 7/05.
87. "Modeling Variation and Spot Detection in Protein Gel Images", 13th INFORMS Applied Probability Conference, Ottawa, Canada, 7/05.
88. "Modeling and Spot Detection of Two-Dimensional Gels", Center for Genetics and Complex Traits (CGACT), University of Pennsylvania, 12/04.
89. "Systematic Variation in Microarrays and Two-Dimensional Gels", Statistics Undergraduate Research Experience (SURE) Program, Carnegie Mellon University, 6/04.
90. "Detecting Protein Differences via the Difference Gel Electrophoresis Process", Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania, 5/04.
91. "Systematic Variation in Difference Gel Electrophoresis Data", Department of Mathematical Sciences, Villanova University, 4/04.
92. "Systematic Variation in Difference Gel Electrophoresis Data", Department of Mathematics, Haverford College, 4/04.
93. "It's All Vague: Component and System Reliability under Degradation", DuPont Engineering and Technology, Wilmington DE, 2/04.

94. "Accounting for Systematic Variation in Difference Gel Electrophoresis", Ohio State University Statistics Departmental Seminar, 1/04.
95. "Accounting for Systematic Variation in Difference Gel Electrophoresis", University of Maryland Baltimore County Applied Mathematics and Statistics Departmental Seminar, 12/03.
96. "CSI: Collecting Statistics for Information", StatFest at North Carolina State University, Raleigh NC, 11/03.
97. "Quantitative Analysis of Two-dimensional Difference Gel Electrophoresis", North Carolina State University Statistics Department, Raleigh NC, 11/03.
98. "Systematic Variation in Two-dimensional Difference Gel Electrophoresis", University of Pittsburgh Statistics Department, Pittsburgh PA, 11/03.
99. "Using Imprecise Measures to Study Component and System Reliability", NAM Granville-Brown-Haynes Session of Presentations by Recent Doctoral Recipients in the Mathematical Sciences, Joint Mathematics Meetings, Baltimore MD, 1/03.
100. "Systematic Variation in Genetic Microarray Data", SIAM Symposium on Computational Models and Simulation for Intra-cellular Processes, Washington DC, 10/02.
101. "System Reliability under Precise and Imprecise Measures", Statistics Colloquium, George Mason University, Alexandria VA, 2/01.
102. "System Reliability under Precise and Imprecise Measures", Statistics Department Seminar Series, Carnegie Mellon University, Pittsburgh PA, 1/01.
103. "Vague Coherent Systems", ISDS Research Seminar, Duke University, Durham NC, 11/00.
104. "Vague Coherent Systems", MMR 2000: Second International Conference on Mathematical Methods in Reliability (Methodology, Practice and Inference). Université Victor Segalen-Bordeaux 2. Bordeaux, France, 7/00.
105. "A Definition and Structural Properties of Vague Coherent Systems", Systems Reliability Seminar, Sandia National Laboratory. Albuquerque NM, 6/00.
106. "Early Work Regarding Many Valued Systems and Vagueness in Propositional Logic", Network Systems Consortium Meeting, George Washington University, 11/99.
107. "Iterative Methods for Computing Mean First Passage Times of Markov Chains", Women In Mathematics (WIM) Graduate Student Seminar, University of Maryland College Park, 3/98.

Other:

1. (forthcoming) Invited Session Discussant, “Ethical, High-Impact Communication of Statistical Concepts and Results”, JSM 2026, Boston, MA (8/26)
2. (forthcoming) Invited Session Panelist, “Connecting for impact: beyond social media and coffee chat”, JSM 2026, Boston, MA (8/26)
3. Invited speaker, “Statistics and Data Science Programs: Challenges and Opportunities”, Washington University at St. Louis Department of Statistics and Data Science, St. Louis, MO (3/26)
4. Keynote speaker, RTG Women’s Lunch (9/25)
5. Invited panelist, 2025 ENAR Career Catalyst WebENAR, “From Connections to Career Growth: Social Media Strategies for (Bio)Statisticians” (4/25)
6. Organizer and Moderator, “PANEL: Academic Leadership Avenues and Advantages for Data-Driven Leaders”, ENAR 2025, New Orleans, LA (3/23-26/25)
7. Moderator, “Multimodal Data Fusion: Use Cases and Opportunities”, NASEM Committee on Applied and Theoretical Statistics meeting (virtual, 3/11/25)
8. Panelist, "Finding Your Voice", Diversity Workshop 2022 (in conjunction with JSM 2022), Washington, DC, 8/22.

9. Panelist, "From the Horse's Mouth: How Mentoring Shaped My Career and How it Can Shape Yours Too!", JSM 2022, Washington, DC, 8/22.
10. Panelist, "Moving Toward Justice, Equity, Diversity, and Inclusion in the Statistical Sciences", JSM 2022, Washington, DC, 8/22.
11. Panelist (with Adrian Coles), "Fostering Diversity, Equity, and Inclusion in the Statistical Community", ASA Giving Day video, 10/21.
12. Panelist, "Statistics and Data Science Partnerships and Collaborations across Sectors", 2021 International Chinese Statistical Association (ICSA) Applied Statistics Symposium (virtual), 9/21.
13. Panelist, "Justice, Equity, Diversity, and Inclusion (JEDI) in Statistics and Data Science", 2021 Joint Statistical Meetings (virtual), 8/21.
14. Q&A with Northwestern Women in Statistics, 4/21 (virtual).
15. Interview, Practical Significance, aired 2/21.
16. "Life as a(n) (Academic) Statistician", Goal Grinders (Virtual) Teen Summit, 8/20.
17. "My Story", Women in Statistics and Data Science, La Jolla, CA, 10/17.
18. "Imposter Syndrome", Women in Statistics and Data Science, La Jolla, CA, 10/17.
19. "Implicit Bias in STEM Fields", Georgetown Club of Chicago, Chicago, IL, 6/17.
20. (Keynote/Plenary Speaker) "The Game of Life… is More Than a Game", Adele's Circle "HerStory: TerpWomen of Influence", University of Maryland, College Park, MD, 3/16.
21. Panelist, Success Stories, National Research Conference for McNair Scholars and Undergraduate Researchers, University of Maryland, College Park, MD, 3/16.
22. (Nifty Fifty speaker) "CSI: Count on Statistics for Investigation", USA Science & Engineering Festival, National Cathedral School, 3/16.
23. "Making Effective Presentations", 3rd annual Black Doctoral Network conference, Atlanta, GA, 10/15.
24. "CSI: Collecting Statistics for Investigation", X-STEM Symposium speaker, USA Science & Engineering Festival, Washington, DC, 4/15.
25. Keynote speaker, "CSI: Collecting Statistics for Investigation", Expanding Your Horizons (EYH) Conference (Motivating Young Women in Science and Mathematics) at James Madison University, 3/15.
26. "Quantitative Methods", 2nd annual Black Doctoral Network conference, Philadelphia, PA, 10/14.
27. "It's Even Sweeter: Life as a (Senior) Faculty Member", StatFest conference, North Carolina State University, Raleigh, NC, 9/14.
28. "CSI: Collecting Statistics for Investigation (Middle School version)", Sligo Creek Middle School Math Night, Silver Spring, MD, 2/14.
29. "CSI: Collecting Statistics for Investigation (High School version)", Nifty Fifty event, Frederick High School, MD, 2/14.
30. "CSI: Collecting Statistics for Investigation (Middle School version)", Argyle Middle School Mathedemics Night, Silver Spring, MD, 1/14.
31. "CSI: Collecting Statistics for Investigation (High School version)", 2014 Junior Science and Humanities Symposium (JSHS), Georgetown University, Washington, DC, 1/14.
32. Panelist, "The Color of Science: An Evening with Prominent African-American Scientists", Franklin Institute, Philadelphia, PA, 3/13. http://www2.fi.edu/visitor-guide/events/color-of-science.pdf
33. "CSI: Collecting Statistics for Information", JSHS, Georgetown University, Washington, DC, 1/13.
34. Invited Panelist: "Difficult Decisions: Knowing When it's Time to Make a Change", Infinite Possibilities Conference 2012, University of Maryland Baltimore County, Baltimore MD, 3/12.

35. Invited Panelist, "Progress of African-American Researchers in the STEM Academic Fields", Seventh Annual Diversity Conference, Johns Hopkins University, Baltimore MD, 11/10.
36. "Motherhood & Mathematics: Making it Happen", Infinite Possibilities Conference (IPC2010), UCLA, Los Angeles CA, 3/10.
37. "The Road Through Academia", StatFest 2007, Indianapolis, IN, April 2007.
38. Invited Panelist, "Alumni Sessions: Engineering/Mathematics/Statistics", 7th Annual Gates Millennium Scholars Leadership Conference: Building a Community of Leaders, Chantilly VA, 9/06.
39. "The McNair Program: How Does it Prepare You for Graduate School and Academic Life Beyond?", Ronald E. McNair Post-baccalaureate Program Orientation, University of Pennsylvania, 5/06.
40. "10 Habits of Highly Successful McNair Scholars," Ronald E. McNair Closing Banquet, University of Maryland, College Park MD, 7/05.
41. "The McNair Program's Preparation for Graduate School: A Case Study," Ronald E. McNair Orientation, University of Pennsylvania, Philadelphia PA, 5/05.
42. "The Path to the Ph.D.," GE Fellows Program, Barnard College, New York NY, 4/05.
43. "The Journey to the Professoriate and Beyond" (panelist), National Research Conference for McNair Scholars and Undergraduate Researchers, 3/05.
44. "Keeping my `Eyes on the Prize': What it took to obtain a Ph.D., and what I'm doing now that I have it", Mathematics and Computer Science Department, Lincoln University, Lincoln, PA, 11/04.
45. "The McNair Experience, and its Influence on Academic Pursuits" (panelist), National Research Conference for McNair Scholars and Undergraduate Researchers, 3/04.
46. "Minority Life in the Academy: the Good, the Bad, and the Ugly", 2003-2004 Inter-University Graduate Students of Color Dinner/Speaker Series, Pittsburgh PA, 1/04.
47. "Careers in Biostatistics" (panelist), Diversity Day, 2003 ENAR Spring Meeting, Tampa FL, 3/03.
48. "The After-life: Life with a Ph.D." (panelist), National Research Conference for McNair Scholars and Undergraduate Researchers, 3/02, 3/03.
49. "The Graduate School Experience" (panelist), National Research Conference for McNair Scholars and Undergraduate Researchers, 3/00, 3/01.

Invited Lectures

1. Quantitative Methods workshop, International Black Doctoral Network Association (IBDNA) Conference 2013, Philadelphia, PA, 10/13.
2. "Analysis of Proteomics Data", NIGMS short course on Statistical Genetics and Genomics, University of Alabama at Birmingham; Birmingham AL, 7/11.
3. "Image Analysis for Proteomic Data Analysis", Short Course on Statistical Genetics and Genomics, Honolulu Hawaii, 7/09.
4. "Introduction to S-plus/R", Department of Biostatistics and Epidemiology Graduate Program, University of Pennsylvania, 9/05.
5. "What is Algebraic Statistics?", The Tenth Annual Conference for African-American Researchers in the Mathematical Sciences (CAARMS X), Mathematical Sciences Research Institute (MSRI), 6/04.
    - Part I: Contingency Tables
    - Part II: Application: Statistical Disclosure Limitation
    - Part III: Computational Algebra

Contributed Talks

1. "Forecasting Count Data with Varying Dispersion", ISBIS Satellite Meeting, University of Amsterdam, 10/25.
2. "The Influence of Prior Distributions in Modeling Conway-Maxwell-Poisson Data", JSM 2024, Portland, OR, 8/24.
3. (with Andrew Swift) "Bayesian generalized linear model for difference of over or under dispersed counts", JSM 2022, Washington, DC, 8/22.
4. "A Flexible Univariate Moving Average Time-Series Model for Dispersed Count Data" (with A. Arab, S. Melville, and F. Cui), 2021 Joint Statistical Meetings (virtual), 8/21.
5. "A Flexible Zero-Inflated Count Model to Address Data Dispersion", Eastern North American Region (ENAR) of the International Biometric Society, Atlanta, GA, 3/18
6. Davenport D, Sellers KF, Morris DS, Zhu L, Shmueli G (2017) "Conway-Maxwell-Poisson Process Implementation in R", Contributed Poster Presentations: Section for Statistical Programmers and Analysts, Joint Statistical Meetings 2017, Baltimore, MD, 8/17.
7. "A Flexible Stochastic Process for Count Data", 38th Conference on Stochastic Processes and Applications, University of Oxford; Oxford, UK; 7/15.
8. (coauthor with Li Zhu and Galit Shmueli) "The Conway-Maxwell-Poisson Process" (poster), International Conference on Statistical Distributions and Applications (ICOSDA 2013), Mt. Pleasant, MI, 10/13.
9. "A Generalized Statistical Control Chart for Over- or Under-dispersed Data", Joint Statistical Meetings, Montreal, Quebec Canada, 8/13.
10. "The Conway-Maxwell-Poisson Distribution and Extensions", Joint Statistics Meetings 2012, San Diego, CA, 7/12.
11. "Introducing a generalized bivariate distribution for count data", Joint Statistical Meetings 2011, Miami Beach FL, 8/11.
12. "Introducing a model to determine true counts via the Conway-Maxwell-Poisson distribution", International Workshop on Statistical Modelling 2011; Valencia Spain, 7/11.
13. "Introducing a generalized statistical control chart for over- or under-dispersed data (preliminary report) ", Mathematical Methods in Reliability 2011 conference; Beijing China, 6/11.
14. "Conway-Maxwell-Poisson (COM-Poisson) Regression", Infinite Possibilities Conference (IPC2010), UCLA, Los Angeles CA, 3/10.
15. "A Regression Model for Count Data with Observation-level Dispersion", 24th International Workshop on Statistical Modelling (IWSM 2009), Cornell University, Ithaca NY, 7/09.
16. "Background Correction, Denoising, and Normalization Techniques for Preprocessing Mass Spectrometry Data", Hawaii International Conference on Statistics, Mathematics and Related Fields, Honolulu Hawaii, 1/07.
17. "Comparison of Normalization Techniques for cDNA Microarray Data", International Biometric Society Eastern North American Region (ENAR) Meeting, Austin TX, 3/05.
18. "Systematic Variation in Difference Gel Electrophoresis Data", ENAR Meeting, Pittsburgh PA, 3/04.
19. "System Reliability and Safety Involving Imprecise Measures", 6th Annual Probabilistic Safety Assessment and Management Conference (PSAM6), Puerto Rico, 6/02 (submitted and accepted).
20. "Preliminary Results Regarding Vague Coherent Systems", MMR 2000: Second International Conference on Mathematical Methods in Reliability (Methodology, Practice and Inference). Université Victor Segalen-Bordeaux 2. Bordeaux France, 7/00.

Teaching Experience

Instructor: Outlined syllabus and website; prepared lectures, homework, lab assignments and examinations; organized discussion of course and related material; led computer instruction, if applicable; graded examinations, quizzes, and homework; handled all administrative duties

- Georgetown University:
  - Graduate Internship/Research (MATH 703): Spring 2008, Spring 2017
  - Applied Multivariate Analysis (MATH 652): Spring 2009, Fall 2012, Spring 2017, Spring 2023
  - Regression Methods and Generalized Linear Models (MATH 651) (all fall semesters): 2015-2019
  - Mathematical Statistics (MATH 503) (all spring semesters): 2007, 2008, 2009, 2011, 2013, 2016, 2019, SY 21-22
  - Applied Statistical Methods II (MATH 340): Fall 2012, Spring 2013, Fall 2013, Spring 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2021, Fall 2022
  - Tutorial – Senior Thesis (MATH 301-302): CY 2013 (Don Jayamaha); SY 2015-2016 (Austin Menger)
  - Applied Statistical Methods I (MATH 240): Spring 2012, Fall 2013, Spring 2014, Spring 2017, Spring 2020 (two sections) , Spring 2022, Fall 2022
  - Introduction to Mathematical Statistics (MATH 140): Spring 2012.
  - Probability & Statistics (MATH 040): Fall 2006, Fall 2007, Spring 2008; Large lecture format: Fall 2008, Fall 2009, Spring 2010
- University of Pennsylvania:
  - Biostatistical Methods II (BSTA 631): Spring 2006
- Carnegie Mellon University:
  - Algebraic Statistics (36-835): Fall 2003
  - Advanced Data Analysis II (36-758): Fall 2003
  - Statistics for Lab Sciences (36-247): Spring 2003
  - Engineering Statistics and Quality Control (36-220): Fall 2002, Spring 2004

Co-instructor: Outlined syllabus, prepared and led lecture instruction including software usage, wrote and graded examinations and homework, collected outside projects and mentored students toward project completion, handled administrative duties

- Carnegie Mellon University:
  - Advanced Data Analysis II (36-402): Spring 2002 with Brian Junker
  - Advanced Data Analysis I (36-401): Fall 2001 with Brian Junker
  - Statistics for Lab Sciences (36-247): Spring 2002 with Rob Kass

Conference Participation

- Joint Statistical Meetings (JSM)
  - Invited Session Discussant, “Ethical, High-Impact Communication of Statistical Concepts and Results”, JSM 2026, Boston, MA, August 1-6, 2026.
  - Invited Session Panelist, “Connecting for impact: beyond social media and coffee chat”, JSM 2026, Boston, MA, August 1-6, 2026.
  - Invited Session Moderator/Chair, “Leadership in Our Communities: Advancing Society”, JSM 2026, Boston, MA, August 1-6, 2026.
  - Organizer and discussant, "Joe Hilbe: A Statistician Who Counted!" (invited memorial session), JSM 2018: Vancouver, Canada, 7-8/18.

- Co-organizer, "Imposter Syndrome" (invited panel session), JSM 2018: Vancouver, Canada, 7-8/18.
- Co-organizer, "Sexual Harassment in the Statistics Community" (invited/late-breaking panel session), JSM 2018: Vancouver, Canada, 7-8/18.
- Co-organizer and Chair, "Implicit Bias and the Profession of Statistics" (invited session), JSM 2017: Baltimore, MD, 7-8/17.
- Mentor, JSM Diversity Workshop and Mentoring Program, 2012-2016.
- Organizer, "Don't Count on Poisson: Statistical Methods for Dispersed Count Data and their Applications", Topic-Contributed Session, JSM 2012; San Diego, CA, 7/12.
- Invited Discussant, "Challenges Facing the Next Generation of Applied Statisticians", Seattle WA, 8/06.

- Conference for Women in Statistics / Women in Statistics and Data Science
  - Executive Committee member, WSDS 2018, Cincinnati OH, 10/18.
  - Organizer and moderator, "She's 'A Business, (Wo)Man!': Starting and Running Your Own Statistics/Data Science Business" (panel), WSDS 2018, Cincinnati OH, 10/18.
  - Panelist, "Implicit Bias and Power Dynamics: How We can Change the Culture" session, WSDS 2018, Cincinnati OH, 10/18.
  - Panelist, "She Leads with Statistics and Data Science Research" session, WSDS 2018, Cincinnati OH, 10/18.
  - Executive Committee member, WSDS 2017, La Jolla CA, 10/17.
  - Organizer and moderator, "Call Her Madam President: A Discussion with Women Leaders in the Statistics Community", WSDS 2017, La Jolla CA, 10/17.
  - Panelist, "The Imposter Syndrome", WSDS 2017, La Jolla CA, 10/17.
  - Organizer and moderator, "An Outlier Personified: How to Overcome Inferences Stemming from Implicit Bias in the Community", Charlotte NC, 10/16.
  - Panelist, "Career and Kids: Some Pros and Cons on Timing", Charlotte NC, 10/16.
  - Travel award committee member, Raleigh-Durham NC (5/13), Charlotte NC (10/16).
  - Organizer and moderator, "Surviving graduate school" (panel), Raleigh-Durham NC, 5/13.
  - Poster judge, Raleigh-Durham NC, 5/13.
  - Co-chair, Awards Committee, 2013.
  - Steering/Vision Committee, 2011.
  - Planning Committee member and Awards Committee Co-Chairperson, 1/11–5/14.
- World Statistics Congress of the International Statistical Institute (ISI)
  - Invited speaker, "The Conway-Maxwell-Poisson Stochastic Process for Dispersed Count Data", in Invited Paper Session "Recent Developments in Discrete Model", ISI 2019, Kuala Lumpur, Malaysia, 8/19.
- NASEM Committee on Applied and Theoretical Statistics meeting
  - Moderator, "Multimodal Data Fusion: Use Cases and Opportunities" (virtual, 3/11/25)
- International Biometric Conference (IBC)
  - Organizer (with Drs. Jenny Barrett and Somnath Datta; Invited Session), "Statistical analyses of proteomic data", Dublin Ireland, 07/08.
- Justice, Equity, Diversity, and Inclusion (JEDI) Outreach Group webinar
  - Organizer, "Incorporating DEI in Biostatistics Courses" (panelists: Scarlett Bellamy, Renee Moore, Andrea Lane), 10/21.
  - Organizer, "Diversity in Awards Nominations" (panelists: Mary Batcher, Abdus Wahed), 1/22.
- Conference on Statistical Practice (CSP) short course,
  - Organizer, half-day workshop: "Equity and Bias in Algorithms: A Discussion of the Landscape and Techniques for Practitioners", Emily Hadley (speaker), 2/22.

- Ingram Olkin Statistics Serving Society Forum
  - Discussant and roundtable moderator, “Policing Gun Violence”, Inaugural Ingram Olkin Statistics Serving Society Forum on Gun Violence – The Statistical Issues, Arlington, VA, June 26-27, 2019
- Infinite Possibilities Conference (IPC)
  - Co-organizer and moderator, "The Imposter Syndrome: What is it, and How to Overcome It?", IPC 2018, Howard University, Washington, DC, 4/18
  - Steering Committee member, IPC 2018, Howard University, 4/18.
    - Poster Judge, University of Maryland – Baltimore County, 3/12.
    - Vision Committee member, UCLA, 3/10.
  - Steering Committee member and Registration Committee Chairperson, NC State University, 11/07.
  - Steering Committee member (IPC 2007), Registration Committee chairperson (IPC 2007), Vision Committee member (for IPC 2010), Poster judge (IPC 2012)
- National Association of Mathematicians (NAM) Mathfest
  - Session Moderator, Washington DC, 11/06.
  - Student Presentations Moderator, 10/20 (virtual).
- Black Doctoral Network (BDN) Conference
  - Lecturer, “Quantitative Analysis”, 10/13, 10/14.
  - Panelist, Race and the Academy, 2nd annual Black Doctoral Network Conference, Philadelphia, PA, 10/14.
  - Co-workshop presenter with Ryan Hynd (UPenn), “Stress and Time Management: Finding Solutions for Work-Life Balance”, 2nd annual Black Doctoral Network Conference, Philadelphia, PA, 10/14.
- Gates Millennium Scholars Leadership Conference
  - Invited Panelist, "Alumni Sessions: Engineering/Mathematics/Statistics", Chantilly VA, 09/06.
- Eastern North American Region (ENAR) of International Biometric Society Meeting
  - Member, ENAR 2025 Program Committee
  - Moderator, “Professionals: Supporting our Community”, FDBW at ENAR 2025, New Orleans, LA (3/23/25)
  - Organizer and Moderator, “PANEL: Academic Leadership Avenues and Advantages for Data-Driven Leaders”, ENAR 2025, New Orleans, LA (3/25/25)
  - Selected Participant, Junior Researcher's Workshop, Pittsburgh PA, 3/04.
  - Diversity Committee member, International Biometric Society (ENAR), 1/02-12/08
- American Institute of Mathematics Research Conference Center (ARCC) Workshops
  - Invited Participant, "Computational Algebraic Statistics", San Diego CA, 12/03.
- Society for Industrial and Applied Mathematics (SIAM) Meetings and Symposia
  - Organizer and chair, “Statistical Analysis on Microarray Data”, SIAM Symposium on Computational Models and Simulation for Intra-cellular Processes, Washington DC, 10/02.
  - Poster presenter, AWM Workshop for Women Graduate Students and Postdoctoral Mathematicians, SIAM Annual Meetings, San Diego CA, 07/01.
- Conference for African-American Researchers in the Mathematical Sciences
  - Poster presenter, Baltimore MD, 06/00.
- International Conference on Statistical Distributions and Applications (ICOSDA)
  - Invited session organizer, "Don’t Count on Poisson! Introducing the Conway-Maxwell-Poisson distribution for statistical methodology regarding count data", ICOSDA 2016, 10/16.
  - Scientific Program Committee member (ICOSDA 2016), 10/16.
- ASA Statfest
  - Panelist, Statistics in Academia, StatFest conference, North Carolina State University, Raleigh, NC, 9/14.

- Invited speaker, StatFest 2007, Indianapolis, IN, 4/07; participation noted in July 2007 Amstat News, "Lilly Hosts StatFest 2007"

- Data Science and Environmental Health symposium (Spring 2024) – Organizing committee member
- National Research Conference for McNair Scholars and Undergraduate Researchers
  - Faculty panelist, 3/16.
  - Judge, Research presentation competition, 3/01 – 3/03

Professional Service

Broader Academic Community

- Member, National Academies of Science, Engineering, and Medicine (NASEM) Committee on Applied and Theoretical Statistics (2023-present)
- ASA Caucus of Representatives (CAR) Executive Committee Representative of departments offering a PhD in statistics (9/1/24-8/31/27)
- Member, ASA Deming Lectureship Committee (2024-present)
- Associate Editor: *The American Statistician* (6/2014 - 6/2026), *Journal of Computational and Graphical Statistics* (1/2017 – 8/2022)
- Guest Editor, special issue of *Applied Stochastic Models in Business and Industry* honoring Nozer D. Singpurwalla (2024)
- Commissioning Editor: *WIREs Computational Statistics* (5/6/19 – 12/31/22)
- Inaugural Chairperson, American Statistical Association (ASA) Justice, Equity, Diversity, and Inclusion (JEDI) Outreach Group (2021-2022)
- Member, Committee of Presidents of Statistical Societies (COPSS) Leadership Academy Award Committee (9/20 - 8/23)
- Member, ASA Committee on Women in Statistics (1/13 – 12/18); Chairperson (1/17 – 12/18)
- Advisory Board member, International Black Doctoral Network Association, Incorporated, 1/12 – 12/16
- Advisory Board member, Summer Program in Research and Learning (SPIRAL), 5/19 - 12/22
- Director BDN STEM'ers, International Black Doctoral Network Association, Inc., 1/13 – 12/16.
- Chairperson (2024-2025), Vice-chairperson (2022-2023), and Member (2020-2025), ASA External Nominations and Awards Committee
- Member, Adele's Circle of Women, University of Maryland, College Park, MD; 1/14 – present
- Panelist, NSF Mentoring through Critical Transition Points and Unsolicited Workforce (MCTP/UWP), 9/12.
- Member, National Science Foundation Proposal Review Panel (Statistics Panel C); 1/10, 2/11
- Mentor, Lesley Chapman (Intramural Continuing Umbrella of Research Experiences (iCURE) Fellowship at the National Cancer Institute Data Science Laboratory), 2019.
- ISBIS blog (November 26, 2017), "Sharing WISDOM at the Women in Statistics and Data Science Conference", https://blogisbis.wordpress.com/2017/11/26/sharing-wisdom-at-the-women-in-statistics-and-data-science-conference/
- Panelist, George Washington University Summer Program for Women in Mathematics (SPWM), 7/12.
- Referee/Reviewer (in alphabetical order):

  Books: *Interpreting Socio-Economic Data: A Foundation of Descriptive Statistics* (Winkler; Chps. 1,10; Appendix D)
  Introduction to Mathematical Statistics (Hogg, McKean, Craig; 6th edition: Chps. 5-8; 7th edition: Chps. 2,4,6,8,10)
  Statistics in Action: Understanding a World of Data, (Watkins, Scheaffer, Cobb; Chps. 7-9)

Book Chapters: R. Viertl, O. Sunanta, Fuzzy Information, Likelihood, Bayes' Theorem, and Engineering Application, in *Current Trends in Bayesian Methodology with Applications* (D.K. Dey, U. Singh, A. Loganathan, eds.)

On the Commutativitiy of a Career Trajectory, *A Celebration of EDGE*, Springer

Journals (in alphabetical order): *Applied Stochastic Models in Business and Industry; Austrian Journal of Statistics; Biometrical Journal; Biometrics; Chemometrics; Communications in Statistics—Case Studies and Data Analysis; Communications in Statistics—Theory and Methods; Communications in Statistics—Simulation and Computation; Computational Statistics and Data Analysis; Computers & Industrial Engineering; Electrophoresis; International Statistical Review; Journal of Computational Biology; Journal of Computational & Graphical Statistics; Journal of Proteome Research; Journal of the American Statistical Association; Lifetime Data Analysis; Naval Research Logistics; Pakistan Journal of Statistics; Proceedings of the Institution of Mechanical Engineers, Part O, Journal of Risk and Reliability; Journal of Time Series Analysis; Quality and Reliability Engineering International; Risk Analysis; Statistics; Statistics and Operations Research Transactions; Statistics and Probability Letters; Statistics in Medicine*; *The American Statistician; The 5th International Conference on Cybernetics and Information Technologies, Systems and Applications: CITSA 2008*

- Panelist, George Washington University Summer Program for Women in Mathematics (SPWM), 7/12.
- Participant, "US/India Workshop on Virtual Institute for Computational and Data-Enabled Science and Engineering", Bangalore, India, 12/11.
- Ed.D. Dissertation Committee member: April Battle (Bowie State University, defended 4/09)
- D.Sc. Examining Committee member: Seung Byeon (George Washington University, defended 12/01)
- Met with McNair program student (Raphael Rodriguez) from The University of Texas at San Antonio to provide mentorship and advice regarding graduate school and PhD pursuits, 3/11
- Featured participant on American Statistical Association (ASA) Ask-Me-Anything (AMA) series, 3/17.
- External examiner:
    - G. K. Basele (2016) "The Exponentiated Log-Logistic Weibull Distribution: Model, Properties, and Applications", M.S. in Statistics, Department of Mathematics and Statistical Sciences, College of Science, Botswana International University of Science and Technology
    - M. Otlaadisa (2016) "Beta Linear Failure Rate Power Series Class of Distributions: Theory and Applications", M.S. in Statistics, Department of Mathematics and Statistical Sciences, College of Science, Botswana International University of Science and Technology

University: North Carolina State University, 2023-present

- Chairperson, Bioinformatics Research Center (BRC) Director Search Committee (AY 2023-2024, AY 2024-2025)
- Member, PhD Qualifying Examination Advancement Committee (AY 2023-2024)
- Member, College of Sciences Space Committee (2023-present)
- Member, College of Sciences Career Needs Committee (2025-present)
- Member, Organizing Committee, Bioinformatics Research Center 25th Anniversary Celebration Conference

University: Georgetown University, 2006-2023

- Co-chair, Georgetown College DEI Task Force (9/22-7/23)
- Hiring Committee Member, Georgetown Center for Digital Ethics (SY 2021-2022)
- Member, 2022 Coakley, Kraft, McCahill Awards Selection Committee (Spring 2022)
- College Curriculum Committee Member, Fall 2021 through Spring 2023

- Hiring Committee Member, AVP Institutional Research/AVP Institutional Data Analytics (Fall 2018–Spring 2020, Fall 2022)
- Adviser, Georgetown Gender Task Force (Spring 2018 – Spring 2020); Committee member, Compensation Subcommittee
- Member, Georgetown College Dean Search Committee, Summer 2016 – Fall 2016
- Member, Science Planning Group for Main Campus, SY 2015-2016 (and Resource Management Sub-committee)
- Meeting with STEM middle and high school teachers in conjunction with the Georgetown University Google CS4HS workshop, 7/13
- Panelist, Introduction of Advancement in and Opportunities involving the Sciences in the Georgetown College, Georgetown College Alumni Interviewers Workshop, 1/12
- Member, Georgetown College Executive Committee, 9/08-5/10
- Departmental Open House speaker for Georgetown Admissions Ambassador Program (GAAP), 3/10
- Georgetown Admissions Ambassador Program speaker, 3-4/08 and 3-4/09
- Cristo Rey Lecturer: "CSI: Collecting Statistics for Information", 3/09
- Represented Graduate Program Executive Committee at Program Review Session held by Georgetown College Executive Committee, 3/09
- Georgetown College Dean interviews, 2/09
- College Board of Advisors meeting, 10/07
- Meeting with Biology faculty (Anne Rosenwald and Heidi Elmendorf) to discuss undergraduate statistics curriculum for Global Health program, 10/07
- Meeting with Bryan Kasper (SFS assistant dean) and Charles King (SFS faculty chair) to discuss statistics curriculum development for SFS undergraduate and graduate students, 9/07
- Meeting with Dr. Douglas Eagles (Chair, Biology Department) to discuss statistics curriculum for graduate students, 6/07
- Panelist, Claire Booth Luce Luncheon, 5/07
- Ad-hoc subcommittee to discuss Final Examination policy, 3/07
- Reviewer, 2007 Lombardi Research Fair, 2/07

Departmental: Georgetown University Mathematics Department, 2006-2023

- Chair, Statistics Hiring Committee (tenure line): Fall 2015 – Spring 2016
- Curriculum Committee member, Fall 2009 – Spring 2015
- Graduate Admissions Committee member, Spring 2011, Spring 2013, SY 2015-2016, SY 2017-2018, SY 2018-2019, SY 2019-2020
- Statistics Committee, Chair: Fall 2007 – Summer 2012, Fall 2015 – Summer 2016; Member: Fall 2007 - present
- Merit Review Committee member, Fall 2009 – Spring 2012, SY 2021-2022
- Departmental Bylaws Committee member, Fall 2009 – Spring 2012
- Graduate Program Executive Committee member, Fall 2006 – Summer 2009, SY 2013-2014, SY 2016-2017
- Hiring Committee member, Fall 2006 – Spring 2008, Spring 2013 – Spring 2014
- Senior thesis adviser: Don Jayamaha (CY 2013), Austin Menger (SY 2015-2016)
- Senior thesis committee member: Matthew Hellauer (Spring 2011), John Hocter (Spring 2017)
- Departmental Academic Advisor, Spring 2007 – present
- Georgetown Undergraduate Research Opportunities Program (GUROP) advisor (Fall 2009-present); see list of undergraduate researchers for details

- Determine course equivalence merits and transfer requests regarding MATH 040 at other institutions (Summer 2008 – Summer 2013)
- Held outreach meetings with Alena Maze, Karen Hicklin, and Ian Burt to address concerns/issues as under-represented minorities in mathematics and statistics (February-May, 2011)
- Graduate Program Administrative Assistant Hiring Committee, Fall 2007

Departmental: University of Pennsylvania Department of Biostatistics and Epidemiology, 2004-2006

- Graduate Program Executive Committee member, Fall 2004 - Summer 2006
- M.A. Examining Committee member: Rachel Hammond (defended March 2006)
- MSCE Biostatistics Advisor (in alphabetical order): Reena Duseja, George Makar, Pedro Sanchez, and Bryan Upham

Departmental: Carnegie Mellon University Statistics Department, 2001-2004

- Masters Data Analysis Examination Committee member, Fall 2001, Spring 2003
- Diversity Committee member, Fall 2001 - Summer 2004
- Ph.D. Thesis Committee member (in alphabetical order): Fang Chen (defended February 2004), Jeffrey Miecznikowski (defended January 2006), Aleksandra Slavkovic (defended August 2004)
- Supervision of Ph.D. Advanced Data Analysis Projects: Jeffrey Miecznikowski (2002), Analysis of fluorescence two-dimensional difference gel electrophoresis technology (William F. Eddy, co-advisor)
- Supervision of Graduate Statistical Practice Projects: Pierpaolo Rinaldo, Linqiao Zhao (2004): William F. Eddy, co-advisor
- Supervision of Undergraduate Data Analysis Projects:
    - Amanda Artis (Summer 2004): Comparison of Statistical Methods for Normalizing cDNA Microarray Data
    - Rob Delmont, Meena Soneji, Gene Vladimirov (Spring 2004): Spotted array normalization
    - Tara Kalra, Sameer Rathod, Shamil Patel, Sulaiman Malik (Spring 2003): DNA Microarray
    - Vyacheslav Klimov, Jonathan Knotwell, Darya Leyzarovich (Spring 2002): Bias Assessment of Microarray Chip Based Genetic Studies
    - Scott Benecke, Benjamin Kay, Jennifer Sample (Spring 2002): Predicting Charitable Donations with Demographics
    - Linje Boston, Michael Handke, Jenny Semmes (Spring 2002): Time and Spatial Analyses for Sexually Transmitted Diseases (Brian Junker, co-advisor)

Dissertation Committee Service

- Byeon Seung (PhD in Operations Research, The George Washington University, 2002), "Altruistic and Adversarial Warranties"
- Fang Chen (PhD in Statistics, Carnegie Mellon University, 2004), "A two-stage method for approximate spatial inferences by combining independent site specific analyses"
- Aleksandra Slavkovic (PhD in Statistics, Carnegie Mellon University, 2004), "Statistical Disclosure Limitation Beyond the Margins: Characterization of Joint Distributions for Contingency Tables"
- Jeffrey C. Miecznikowski (PhD in Statistics, Carnegie Mellon University, 2006), "Spot Detection in Two-Dimensional Electrophoresis Images"

- Dissertation Committee member for Ms. April Battle, PhD candidate in Education, Bowie State University (Dr. Lola LeCounte, advisor). Topic: "The Impact of Teacher Preparation and Teacher Dispositions on Student Achievement"
- PhD Dissertation External reviewer for Ranusha Rajakrishnan (PhD in Statistics, University of Malaya, 2025); Advisors: Dr. Ong Seng Huat and Ng Choung Min; Title: "Statistical Inference with Probability Generating Function-Based Measures and Related Regression Models"

Georgetown Undergraduate Research Opportunities Program (GUROP) Mentorship

- Kaitlin Woo (AY 2009-2010) – assist in developing R package, COMPoissonReg
- Li Zhu (2013) – collaborate on developing COM-Poisson process
- Don Jayamaha (2013) – develop generalized first-order autoregressive time series model for count data expressing over- or under-dispersion via COM-Poisson distribution
- Luis Costa (SP 2014) – develop R package, CMPControl
- Stephen Peng (SP 2017, SY 2017-2018) – sCOM-Poisson INAR(1) time series model
- Sophie Lockwood (2017) – zero-inflated sum-of-COM-Poissons regression
- Sean Melville (SP 2018- SP 2020) – Develop SCMPMA(1) model
- Fanyu Cui (SP 2018 – SP 2020) – Develop SCMPMA(1) model
- Zhuo Chen (SP 2018) – Develop SCMPMA(1) model
- Yixuan (Sherry) Wu (SP 2018- SP 2019) – Develop multivariate CMP distribution
- Bailey Premeaux (SP 2019) – Develop multivariate CMP distribution
- Sarah Lalevee (SP 2019 – SP 2020) – analyzing mass murder due to gun violence, 2015-2018
- Zev Burton (SP 2019 – SP 2020) – analyzing mass murder due to gun violence, 2015-2018
- Runzhong (Stephen) Xu (SP 2019 – SP 2020) -- analyzing mass murder due to gun violence, 2015-2018
- Amia Graye (SP 2022 - SP 2023) – statistical properties associated with the Conway-Maxwell-Poisson distribution when interacted with various prior distributions of consideration (conjugate, noninformative, and Jeffrey's priors)

Georgetown Undergraduate Honors Thesis Advising

- Don Jayamaha (defended 12/13) "First-Order Autoregressive Time Series With sCOM-Poisson Marginals"
- Austin Menger (defended 4/16; co-advisor: Darcy S. Morris) "A Flexible Longitudinal Study Model for Count Data"

Other Georgetown Mentorship/Advising

- Rachel Wishnie-Edwards (Summer 2016; Eric Burger, CS advisor)
- Diag Davenport (Spring 2017) – develop R packages, cmpprocess and multicmp
- Shriya Chauhan (2019) – model comparisons for clustered count data

Professional Society Memberships

Current: American Statistical Association (ASA), International Statistical Institute (ISI), Institute of Mathematical Statistics (IMS), American Association for the Advancement of Science (AAAS), Caucus for Women in Statistics, Association for Women in Mathematics (AWM)
Past: ASA Committee on Women in Statistics, Eastern North Atlantic Region (ENAR) of the International Biometric Society, Bernoulli Society, Statistical Modelling Society, Washington Statistical Society

Broader Community

- Board of Directors member, Attrus C. Fleming Music Scholarship Fund (1/13- 12/20)
- Assist Duke Ellington School of the Arts with STEAM program and curriculum development(Fall 2017)
- Technology Committee member, Iota Gamma Omega chapter of Alpha Kappa Alpha Sorority, Inc. (1/08 – 12/14)
- Power mentor, Your Turn to Lead Conference in conjunction with the Girl Scout Council of the Nation's Capital, Howard University Law Center (6/13)
- Interviewed for "Career Girls" website, www.careergirls.org (4/11)
- Career Day speaker, Burnt Mills Elementary School (2/11)
- Invited speaker about Community Leaders, Silver Spring YMCA (5/07)

In The News, and Other Features

- (forthcoming) Inclusion in Deck 3 of Association for Women in Mathematics (AWM)'s *EvenQuads: Notable Women in Mathematics*
- Featured in *Women Shaping the Future of Mathematics* poster, created by Association for Women in Mathematics (AWM) and the American Mathematical Society (AMS)
- Featured in March 2025 issue of The Calculated Career (Department of Mathematics, University of Maryland)
- Black History Month 2022 Feature, University of Kentucky
- "Kimberly Sellers Named ASA Fellow for Research, Collaboration and Leadership in Justice and Equity" (Georgetown College News Story, September 8, 2021)
- Interviewed for *Storytelling for Mathematics Learning and Engagement*, July 14, 2021 (virtual).
- Featured in *Amstat News* February 2020 issue ("Celebrating Black History Month")
- "Department Highlight – Mathematics & Statistics Professor Kimberly Sellers Creates Varied Research Opportunities for Students" (Georgetown College News Story, January 27, 2020)
- Featured in *Amstat News* March 2018 issue ("Celebrating Women in Statistics and Data Science")
- Featured in "Mathematically Gifted and Black" website (February 1, 2018) and associated American Mathematical Society (AMS) poster (Fall 2018)
- Interviewed for "Who Inspires You?" *Amstat News*, September 2015, p.39.
- Featured in February 18, 2014 issue of *The Frederick News-Post*, "Leading stats professor to speak at Frederick H.S." (Rachel S. Karas, columnist)
- Featured in Georgetown University Center for New Designs in Learning and Scholarship (CNDLS) *Spotlight on Teaching & Learning: Science* (2009)
- Featured in the September 2007 issue of Georgetown University Georgetown College's online *Research Magazine: Science*, "Dr. Kimberly Sellers Sees Numbers in Images"
- Mentioned in July 2007 *Amstat News* article, "Lilly Hosts StatFest 2007"
- Featured in June 25, 2004 *Berkeley Daily Planet*, "Black Math PhD's Hold UC Meet to Swell Ranks"
- Featured in April 2004 *Black Issues in Higher Education*, "Training for the Ph.D.: National conference brings together first-generation college students on the road to a doctoral degree"
- Mentioned in October 2001 *SIAM News*, "Grad Students, Settling into the Applied Math Community, Find Inspiration at SIAM's Fifth Diversity Workshop"