KAREN KAFADAR

28 April 2025

Education

1975	B.S.	Mathematics, Stanford University
1975	M.S.	Statistics, Stanford University (Adviser: Bradley Efron)
1979	Ph.D.	Statistics, Princeton University (Adviser: John W. Tukey)

Professional Experience (relevant publications in [ ])

Aug 2014- Commonwealth Professor (Chair, 2014-22), Dept of Statistics, University of Virginia.

2007-2014 - Rudy Professor of Statistics, Indiana Univ (Chair, 2011-12); Adjunct Professor: Biostatistics, University of Colorado-Denver; Adjunct Professor: Physics, Indiana University

2007-2013 - Professor & Chancellor's Scholar, Mathematics, Univ of CO-Denver+Health Sciences Center

1997-2007 - Professor, Mathematics, Univ of Colorado-Denver & Health Sciences Center

1993-1997 - Associate Professor, Mathematics, University of Colorado-Denver

1990-1993 - Fellow, Biometry Branch, Division of Cancer Prevention and Control, National Cancer Institute
Geographic epidemiology of cancer mortality rates [28,34,36]; NCI MAP Program; spatial smoothing [32,35,36,38,,39,47]; randomized screening trials [29,33,37,40]; consulting in biomedicine [25,26,27,38]

1983-1990 - Mathematical Statistician, Hewlett Packard Company (Stanford Park, HP Labs)

Statistical methodology and analysis of data in measurement systems; design and analyze experiments in R&D for microwave test equipment [19]; develop statistical algorithms for test performance [15] and instrument calibration [20]; specifications (internal report); instrument model performance and validation [24]; instruction in *S*, simulation, fast Fourier transforms; supervise execution of experiment designs and algorithms.

January-June 1989: Sabbatical Leave, School of Mathematics, University of Bath, U.K.
Lecturer: *Distributions and Inference*; Assistant: *Probability*; consultant at Hewlett Packard Laboratories (Bristol) on modeling knowledge-based systems performance.

March-June 1990: Visiting Scientist, Centers for Disease Control and Visiting Associate Professor, Emory University: Analysis of AIDS incidence [26]; Detection of aberrations in public health surveillance [25, 27]; Lectures in Biostatistics at Emory University

1980-1983 - Mathematical Statistician, National Bureau of Standards
Consulting and research: variance components [6]; measurement accuracy [5,8,9], standard reference materials [6,7]; lead poisoning; Environmental Specimen Bank (EPA); survey design and analysis (National Archives)

1979-1980 - Assistant Professor, Department of Statistics, Oregon State University
Courses: *Introduction to statistics* (U), *Statistical computer packages* (U); *Advanced experimental design* (G), *Spectrum analysis* (G); consulting at Agriculture Experiment Station

Summers 1994-2019: Guest researcher, Biometry Research Group, National Cancer Institute
Statistical methods for randomized cancer screening trials [29,33,37,40,57,63,67,82,94,97]

Honors and Awards

U.S. Patent 5,321,726, Calibration of the HP 8981 Vector Modulation Analyzer, 1994

1988: Award for Excellence in R&D at Hewlett Packard Stanford Park Division

1993: Statistics Award Finalist (with D.F. Stroup), Centers for Disease Control and Agency for Toxic Substances and Disease Registry [23]

1994: Fellow, American Statistical Association

1995: ASA Award for Outstanding Applications Paper [29]

1995: ASQC Wilcoxon Prize for Outstanding Applications Paper in *Technometrics* [29]

1997: Research and Creativity Award, College of Liberal Arts and Sciences, University of Colorado-Denver

2001: William G. Hunter Award, Statistics Division, American Society for Quality, ‘‘for excellence in statistics as a communicator, a consultant, an educator, an innovator, an integrator, of statistics with other disciplines, and an implementer who obtains meaningful results’’

2003-2013: Chancellor’s Scholar, University of Colorado-Denver.

2007: Elected Fellow, International Statistics Institute

2011: National Associate, National Research Council, ‘‘In recognition of extraordinary service to the National Research Council as adviser to the Nation in matters of science, engineering, and health’’

2012: Elected Fellow, American Association for the Advancement of Science (AAAS), "For important applications of statistics to cancer research, forensic science, microarrays, high-energy physics and other areas for extensive editorial service, and for extraordinary service on scientific panels."

2018: Statistical Partnerships Among Academe, Industry and Government (SPAIG), American Statistical Association (Center for Statistical Applications in Forensic Evidence and National Institute of Standards and Technology), "for outstanding partnerships between academe, industry and government organizations, resulting in significant contributions to the statistical field with applications to real-world problems"

2018-2020: President-Elect, President, Past-President, American Statistical Association
(President’s address at ww2.amstat.org/meetings/jsm/2019/webcasts/index.cfm)

2020 Cozarelli Prize Finalist (Social Science category), *Proceedings of the National Academy of Sciences*,for ‘‘Cross-level sociodemographic homogeneity alters individual risk for completed suicide,â by Bernice A. Pescosolido, Byungkyu Lee, and *Karen Kafadar*, for "exceptional quality and importance"

2023: Founders Award, American Statistical Association, "for distinguished service"

Research and Academic Interests

Robust methods and exploratory data analysis with applications to physical, chemical, engineering, and biological sciences

Statistical graphics and visual displays of quantitative information

Statistical methodology for: genomics, forensic science, randomized cancer screening trials, spatial data, particle physics experiments, instrument performance, measurement processes, calibration

Spatial data (geographical epidemiology, signal extraction, nonlinear smoothers, data reduction)

Grants, Fellowships, and Contracts

1995: Grant Award, National Science Foundation: *Methods of Smoothing Bivariate, Irregularly Spaced Data*, $30,000.

1995: Contract, National Cancer Institute: *Statistical methodology for cancer screening trials*, $18,344.

1996-2005, 2010: Summer contracts, National Cancer Institute, $8,000-10,000

2000: Contract, Lockheed Martin: *Simulating survival probabilities of Viking Lander on Mars,* $15,000

2001-2004: Grant Award, National Institutes of Health, *Minimizing Antibiotic Resistance in Colorado* (PI: R. Gonzales; Co-PIs: K. Corbett, K. Kafadar), $823,457

2002-2005: Grant Award, National Oceanic and Atmospheric Association, *The Potential for the Emergence of Dengue Fever in the Southwestern United States along the U.S./Mexico Border,* (PI: C. Janes; Co-PIs: K. Kafadar, M. Hayden), $438,317

2004: Contract, Colorado Department of Public Health and Environment: *Statistical and GIS Methods for Detecting Aberrations of Disease* Incidence in Space and Time (PI: A. James Ruttenber; Co-PIs: K. Kafadar, R. Mareno, D. Thomas), $365,000.

2005: Contract, Colorado Department of Public Health and Environment: *Mathematical Statistics Research Assistant for Automated Surveillance and Outbreak Detection Systems Project* (PI: K. Kafadar), $5,165.

2005: Contract, Colorado Department of Public Health and Environment: *Automated Surveillance and Outbreak Detection Systems Project* (PI: K. Kafadar), $8,775.

2006: Grant Award, American Statistical Association Strategic Funding Initiative, *Expert Panel on Detection of Aberrations in Surveillance Data,* (PI: K. Kafadar; Co-PI: Ronald Fricker, Naval Postgraduate School), $10,000.

2006-2009: Grant Award W911NF-05-1-0490, Army Research Office: *Data-Based Detection of Potential Terrorist Attacks: Statistical and Graphical Methods* (PI: K. Kafadar), $260,000.

2007-2008: Grant Award, National Science Foundation, DMS 05-27090, *Advances in Experimental Particle Physics through Statistical Methodology and Data Analysis* (PI: K. Kafadar), $99,998.

National Science Foundation, *New Approaches to Data Analysis for Identifying Gene Conditional Expression with Applications to Evolution and Developmental Biology* (PI: K. Kafadar; co-PIs G.V. Rocha; A. Moczak; J. Andrews), $840,376 (Direct: $548,636; Indirect: $291,730). To be resubmitted.

National Institutes of Health, *Icelandic Complex Diseases Study* (PI: Bernice Pescosolido; multiple co-PIs), $18,105,196 (Direct: $16,072,776; Indirect: $2,032,420). Resubmitted.l

Grant Award 1R01MH099436, National Institutes of Health, *Transformative and Transdisciplinary Research on Completed Suicide and Interventions* (PI: Bernice Pescosolido; multiple co-PIs), $6,368,153 (Direct: $4,362,347; Indirect: $2,005,826). Awarded (9/1/12-8/31/15).

NIJ, *Novel Statistical Methods for Forensic Science: Experimental Designs to Estimate Error Rates and Quality Metrics to Reduce Uncertainty and Subjectivity in Analyses of Pattern Evidence* (not funded)

National Institute of Standards and Technology, *Center of Excellence in Forensic Science:* A. Carriquiry (PI), Iowa State; K. Kafadar, Univ of Virginia; S.E. Fienberg, Carnegie Mellon; H.S. Stern, UC-Irvine. $19,999,999.00; UVA $3,535,070.00 (Direct: $2,275,558; Indirect: $1,259,512). NIST Cooperative Agreement #70NANB15H176, Awarded (6/1/15-5/31/20)

Laura and John Arnold Foundation, *Understanding and Improving Effectiveness of Eyewitness Identification Procedures* (PI: Karen Kafadar; co-PIs; Brandon Garrett, UVA; Chad Dodson, UVA; Joanne Yaffe, Univ of Utah), $1,369,931 (UVA direct: $1,154,508; UU direct: $245,417). Awarded (1/1/17 - 12/31/19).

National Institute of Justice, *Enhancing foundational validity of forensic findings in medico-legal strangulation*

examinations (PI: Kathryn S. Laughon, UVA; Co-PI: Karen Kafadar, UVA), National Institute of Justice, $726,344. Awarded (2018-VA-CX-0004; 05/01/2019-04/30/2021).

National Institute of Standards and Technology, *Center of Excellence in Forensic Science:* A. Carriquiry (PI), Iowa State; K.Kafadar, Univ of Virginia; R. Mejia, Carnegie Mellon; H.S. Stern, UC-Irvine; Keith Morris, West Virginia Univ; B.L. Garrett, Duke. NIST Cooperative Agreement 70NANB20H019, $20,000,000.00; UVA $2,256,420.00 (Direct: $1,474,715; Indirect: $781,704). Awarded (6/1/20-5/31/25)

National Institutes of Health, *Integrated Translational Health Research Institute (iTHRIV),* National Center For Advancing Translational Sciences, Karen Johnston, PI; Award No. 5UL1TR003015-03, 2019-2024, www.ithriv.org; grantome.com/grant/NIH/UL1-TR003015-03 (participating investigator only).

National Institute of Justice, *A Quantitative Approach to Forensic Hair Analysis* (PI: Candice Bridge, University of Central Florida), Requested Amount: $450,000 (UVA: $115,255), not funded.

National Science Foundation, *Characterization, Detection, and Mitigation of Algorithmic Bias in the Criminal Justice System.* Semhar Michael (South Dakota State Univ (PI); Co-PI: Karen Kafadar (UVA);Â Â Christopher Saunders (South Dakota State University), Dylan Spencer (Georgia Southern University), Liansheng Tang (Univ of Central Florida). Not funded.

Other Indicators of Scholarship (no compensation)

Invited participant, *1991: Strategic Planning Workshop for Statistical and Epidemiological Methods in Public Health,* Atlanta

1995: Invited participant, *NSF Collaboration Project between Industry and University*, California State Polytechnic University, San Luis Obispo

1998-1999: Invited participant, *Guidelines for Reporting Meta Analyses in Randomized Clinical Trials and in Epidemiological Studies*, Atlanta

NSF DMS Grants Review Panel, 1994, 1995, 1998, 2000, 2001, 2004, 2010, 2012, 2013, 2014, 2022.

NSF Complex Systems Grants Review Panel, May 2010.

Guest faculty affiliate, Los Alamos National Laboratory, TSA-1 Statistics Group, Summer 2000-2003.

Guest researcher, National Cancer Institute, Biometry Research Group, Summer 1994-2014.

Guest researcher, National Institute of Standards and Technology, 2003-2006.

External Review Committee, Statistics Program, University of Utah, 2000.

External Review Committee, Dept of Applied Statistics, Bowling Green State University, 2005.

External Review Committee, Dept of Mathematics & Statistics, Williams College, 2008.

External Review Committee, Dept of Mathematics & Statistics, Air Force Institute of Technology, 2011.

External Ad-Hoc Review Committee, Dept of Biostatistics, Harvard School of Public Health, Dec 2012.

Independent reviewer (MATADOR), Pacific Northwest National Laboratory, 5 Feb 2013.

External Review Committee, Dept of Statistics & Actuarial Sciences, University of Iowa, 21-22 Nov 2013.

External Review Committee, Information Technology Laboratory, NIST, 9-11 June 2015.

External Review Committee, Graduate Interdisciplinary Program in Statistics, Univ of AZ, 9-10 Nov 2015.

Workshop on Statistics in Forensic Sciences, Chicago Public Defenders Office, Chicago, 4 Apr 2016.

External Review Committee, Dept of Mathematics & Statistics, Arizona State University, 16-17 Feb 2017.

Two-day short course, *Statistics in Forensic Sciences*, Denver Crime Laboratory, 21-22 Sep 2017.

External Review Committee, Dept of Mathematics, Statistics, and Computer Science (MSCS), University of Illinois-Chicago, 17-19 Nov 2017.

External Review Committee, Dept of Mathematics, College of William Mary, 26-27 Feb 2018.

Site Visit, Statistics Living-Learning Community, Purdue University, April 15-16, 2019.

Invited House Testimony, Committee on Science, Space, and Technology, *Raising the Bar: Progress and Future Needs in Forensic Science,* 10 Sep 2019. https://republicans-science.house.gov/legislation/hearings/ full-committee-hearing-raising-bar-progress-and-future-needs-forensic-science

Grants Review Panel, Natural Sciences and Engineering Research Council of Canada (NSERC), Mathematics and Statistics Institutes, July-Dec, 2021.

External Review Committee, Dept of Math & Statistics, Bowling Green State University, Sep 24-25, 2021.

Chair, External Review Committee, Dept of Statistics, Operations & Data Science, Temple Univ, Mar 29-31, 2023.

Member, GAO-24-107206: Report on testimony before the Subcommittee on Criminal Justice and Counterterrorism, Committee on the Judiciary, U.S. Senate: *Forensic Technology: Algorithms Offer Benefits for Criminal Investigations, but a Range of Factors Can Affect Outcomes*. https://www.gao.gov/products/gao-24-107206 (see p11). Released January 24, 2024.

Invited Podcast Guest, *Hoos in Stem with Ken Ono*, April 4, 2024:
https://podcasts.apple.com/us/podcast/hoos-in-stem/id1671045329?i=1000646583487

External Review Committee, Dept of Statistics, North Carolina State University, April 10-12, 2024.

Panelist, Mathematical Sciences Research Institutes, National Science Foundation, May 29-31, 2024.

Chair, External Review Committee, Dept of Statistics, George Washington University, Nov 19-21, 2024.

Professional Organizations

1977-present	Member, American Statistical Association (Fellow, 1994)
1978-present	Member, Institute of Mathematical Statistics
1993-present	Member, Colorado-Wyoming Chapter of the ASA
1997-2003	Member, American Society for Quality
2007-present	Elected Member, International Statistics Institute
2012-present	Fellow, American Association for the Advancement of Science

Professional Service

1982-1983	Methodology Chairman, Washington Statistical Society
1983-1985	Executive Board, ASA Section on Physical Engineering & Sciences
1986-1988	Secretary, ASA Section on Statistical Graphics (Elected)
1992-1993	Member, ASA Committee on Certification of Statisticians
1994-1996	Publication Liaison Officer, ASA Section on Statistical Computing (Elected)
1995-1996	Continuing Education Representative for ASA Statistical Graphics Section
1996,2001	Technical Program Committee, *Symposium on the Interface: Computer Science and Statistics*
1996-1997	Technical Program Chair, ASA Section on Physical Engineering & Sciences (Elected)
1995-2001	Colorado-Wyoming Chapter Representative to ASA
1997-1999	Chair-Elect, Chair, Past-Chair, ASA Section on Statistical Computing
1998-2001	Executive Board, ASA Section on Physical Engineering & Sciences
2000-2001	Mary G. Natrella Scholarship Award Committee

2000-2001	Member, ASA Electronic Publications Task Force Committee
2000-2001	Technical Program Committee, *SIAM Meeting on Applied Mathematics*
Oct 2001	Organizer, *EDA in the 21st Century*, CU-Denver, 27 Oct 2001
2003-2005	Chair, *Technometrics* Management Committee
2003-2004	National Academy of Sciences Committee on Scientific Assessment of Bullet Lead Elemental Composition Comparison
2003-2008	National Academy of Sciences Committee on Applied and Theoretical Statistics
2003-2005	Publications Representative, American Statistical Association Board of Directors
2003-2004	Chair, ASA Electronic Publications Task Force
2003-2004	Technical Program Chair, ASA-IMS Spring Research Conference, May 19-21, 2004
2004-2005	Chair, ASA Biopharmaceutical Journal Task Force
2005-2007	Chair, ASA Outstanding Applications Award Committee
2006-2007	Chair, ASA Advisory Committee for *Statistics in Biopharmaceutical Research*
2006-2007	Chair, COPSS Award Committee (member, 2004)
2006-2008	Member, ASA Gertrude Cox Award Committee
2005-2006	Technical Program Committee, 38th Interface Symposium, Pasadena
2006-2011	National Academy of Sciences Committee on National Statistics (CNSTAT)
2006-2008	Member, Executive Council, Institute of Mathematical Statistics
2006-2008	National Academy of Sciences Committee on Identifying Needs of Forensic Science Community
2007-2009	Publications Chair, International Statistics Institute
2008-2010	Chair, National Academy of Sciences Committee on Applied and Theoretical Statistics
2008-2009	National Academy of Sciences, NASA's National Aviation Operational Monitoring Service Project
2008-2009	National Academy of Sciences, Committee on Certification of Advanced Spectroscopic Portals
2009-2011	Publications Representative, ASA Board of Directors
2009-2010	National Academy of Sciences, Review of Scientific Approaches in Investigation of 2001 *Bacillus Anthracis* Mailings (Committee)
2010-2016	Board of Trustees, National Institute of Statistical Sciences (NISS)
2011-2013	President, International Association of Statistical Computing (ISI-IASC)
2011-2013	Chair (Elect/Present/Past), ASA Section on Statistical Computing
2012-2013	Chair, Sacks Award Committee (NISS)
2012-2014	Member, ASA Caucus of Academic Representatives
2012-2012	Chair, National Academy of Sciences, Steering Committee for Workshop: *National Patterns in R&D*
2012-2012	Program Committee, Workshop on Strengthening Forensic Science through Analytical Sciences (NSF)
2013-2013	JCGS Editorial Search Committee, ASA
2013-2018	Chair, ASA Advisory Committee on Statistics in Forensic Sciences
2013-2014	National Academy of Sciences, Committee on Scientific Approaches to Understanding and Maximizing the Validity and Reliability of Eyewitness Identification in Law Enforcement and the Courts, Phase I: Social Sciences
2013-2015	Executive Committee, International Association of Statistical Computing (ISI)
2014-2016	Program Committee, *SAMSI Program on Statistics and Forensic Science*
2015-2015	Member, Review of NIST's Information Technology Laboratory, Statistical Engineering Division National Academy of Sciences, June 11-13, 2015.
2016-2016	Member, Gaps in Capabilities for Attributing the Source of a Biological Attack, National Academy of Sciences, Apr 20-21, 2016.
2017-2018	Member, ASA Deming Award Committee
2018-2020	President-elect, President, Past-President, American Statistical Association
2020	Member, Expert Panel on Forensic Algorithms, General Accounting Office & National Academies, Washington DC, January 15-16, 2020 (Report: GAO-24-107206).
2020-2021	Member, Committee on Emerging Areas of Science, Engineering, and Medicine for the Courts: Identifying Chapters for Fourth Edition of *The Reference Manual on Scientific Evidence*: A Workshop

2022-2023 Chair, Nominations/Leadership Development, Section U (Statistics) Steering Committee, American Association for the Advancement of Science (AAAS)
2023-2026 Member, Board of Trustees, National Institute of Statistical Sciences
2024-2026 Member, Advisory Board, Division of Behavioral and Social Sciences and Education
2024-2026 Secretary, Section U-Statistics, American Association for the Advancement of Science (AAAS)

Editorial Service

1986-1997 Associate Editor, *Technometrics*
1993-1995 Associate Review Editor, *Journal of the American Statistical Association*
1994-2005 Associate Editor, *Statistics in Medicine*
1998-2007 Associate Editor, *Computational Statistics and Data Analysis*
1996-1998 Review Editor, *Journal of the American Statistical Association*
1998-2001 Editor (Editor-Elect, 1998), *Technometrics*
2005-2010 Associate Editor, *JASA-Theory & Methods*
2007-2009 Associate Editor, *The Annals of Applied Statistics*
2010-2013 Associate Editor, *Environmetrics*
2012-2014 Associate Editor, *Journal of Uncertainty Quantification*
2012-2014 Advisory Board, *Computational Statistics & Data Analysis*
2010-2015 Editor, Biology & Genetics, *The Annals of Applied Statistics*
2015-2018 Editor, Health & Life Sciences, *The Annals of Applied Statistics*
2019-2021 Editor-in-Chief, *The Annals of Applied Statistics*
2023-2026 Associate Editor, *Journal of the Royal Statistical Society, Series A*

University Service (CU: 1993-2007; IU: 2009-2014; UVA 2014-present)

1993-2005 Health Sciences Liaison
1993-2006 Statistics Colloquium Organizer, UC-Denver
1998-2007 Co-Director, Statistics Consulting Service (with J. Koehler)
1993-1995 Undergraduate Committee, UC-Denver
1994-1995 Comprehensive Review Committee, UC-Denver
1996-1997 Department Colloquium Organizer, UC-Denver
1994-2001 Search Committee (Chairman, 1999-2001), UC-Denver
1995-1999 Graduate Committee, UC-Denver
1998-2000 Merit Committee, UC-Denver
2005-2007 Search Committee (Co-chair, 2006-2007), UC-Denver
2008-2011 Member, Computer committee, IU Dept of Statistics
2008-2011 Member, Colloquium committee, IU Dept of Statistics
2008-2010 Member, IU CLAS Committee on Appointments and Promotions
2010-2011 Chair, Executive Committee, IU Department of Statistics
2011-2012 Member, IU CLAS Committee on Salary Equity
2012-2013 Chair, IU Department of Statistics
2013-2014 Chair, IU Statistics Search Committee (CLAS)
2013-2014 Chair, IU Statistics Department Executive Committee
2014-2018 Member, NIJ-NIST Forensic Science Standards Board (FSSB)
2014-2018 Chair, Statistics Task Group, OSAC (NIST)
2014-2018 Member, Scientific Research Inquiry Subcommittee, NCFS
2014-2022 Chair, University of Virginia Statistics Department
2015-2016 Member, Senior Associate Dean Search Committee, UVA
2015-2016 Member, Data Science Institute Director Search Committee, UVA
2015-2016 Member, Data Science Institute Advisory Board, UVA

2016-2017 Chair, CLAS Curriculum Reform Assessement Committee, UVA
2017-2019 Member, CLAS General Education Assessement Committee, UVA
2019-2020 Chair, Search Committee, Statistics, UVA
2021-2022 Chair, Endowed Professor Search Committee, Statistics, UVA
2023-2024 Chair, Search Committee, Statistics, UVA
2024-2025 Chair, Search Committee, Statistics, UVA

Related Experience

Summer 1975: IBM Research, San Jose: Analysis of discrete time events

Summer 1976: Center at Oregon for Behavioral Education, University of Oregon: Statistical analysis of psychology experiments

Summer 1977: World Bank, Washington D.C.: Validation of software systems; creation of detailed documentation; econometric modeling

December 1989: Visiting Research Scientist, Department of Statistics, Princeton University

1988--2000: Consultant, *OEA, Inc., Denver:* Manufacturer of automotive safety products and cartridge-actuated devices used in aircraft escape systems, Denver

1996: *United States Geological Survey, Lakewood:* Lectures on Statistical Quality Control; Sampling inspection plans for map digitization process.

1996--1998: Consultant, *Thomas Y. Pickett & Co., Denver:* Residential property assessments in Denver.

1999--2000: Consultant, *Environmental Research Associates, Denver:* Chemical measurement analysis.

1999: Consultant, *Denver Investment Advisors, Inc.:* Analysis of investment strategies.

2000: Consultant, *U.S. National Labor Relations Board:* Sample survey of employee records

Adviser, *Defense Forensic Science Center* (http://www.cid.army.mil/dfsc-usacil.html), Digital Fingerprint Image Quality Index (DFIQI), May 3-4, 2016.

Participant, *Roundtable on Forensic Science Discipline Review,* Department of Justice, July 21-22, 2016.

Member, Senior Advisory Board, *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods,* Report to the President from the President's Council of Advisers in Science and Technology (PCAST), Released Sep 2016 (Eric S.Lander, chair) https://obamawhitehouse.
archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf

Professional Activities (since 1989):

Seminar, *Statistical calibration of a vector demodulator,* Statistics Dept, Univ of Edinburgh, April 1989.

Invited discussant, *Measurement quality case studies,* Joint Statistical Meetings, Washington, D.C., 1989.

Invited seminar, *An analysis of cancer death rates using an adjustment for urbanization,* San Diego State University, September 1989; Centers for Disease Control, November 1989.

Invited lectures, *Using the bootstrap in biostatistics,* Department of Epidemiology and Biostatistics, Emory University, May 1990.

Contributed poster, *Analysis of aberrations in public health surveillance data* (with D.F. Stroup), American Statistical Association, August 1990.

Contributed paper, *Analysis of AIDS incidence data by clustering trends* (with J.M. Karon), Symposium on Surveillance and Intervention Strategies, Atlanta, December 1990.

Seminar, *An adjustment to U.S. lung cancer mortality: A simple adjustment for urbanization* (with J.W. Tukey),

Univ of CO Health Sciences Center, Denver, Mar 1991; Arizona Cancer Center, Tucson, Apr 1991.

Contributed paper, *An evaluation of two-dimensional smoothers via simulation,* Symposium on the Interface: Computer Science & Statistics, Seattle, April 1991; Washington Statistical Society, June 1991.

Invited discussant, *Multivariate exploratory data analysis* (C. Weihs), Gordon Research Conference on Statistics in Chemistry and Chemical Engineering, New Hampton, July 1991.

Invited discussant, *Statistical graphics in computing environments,* Joint Stat Mtgs, Atlanta, Aug 1991.

Invited paper, *Identifying high-risk environments: Geographical analysis of U.S. lung cancer mortality* (with J.W. Tukey), Joint Statistical Meetings, Atlanta, Aug 1991.

Invited paper, *Clustering AIDS incidence trends in metropolitan statistical areas,* Department of Biostatistics, University of California, San Francisco, April 1991, and American Public Health Association Annual Meeting, Atlanta, November 1991.

Invited speaker, *The use of statistics in R&D: past, present, and future,* Statistics and Probability Workshop, Delaware Chapter of the American Statistical Association, May 1992.

Moderator, *Multivariate process quality control* (J. MacGregor), Gordon Research Conference on Statistics in Chemistry and Chemical Engineering, New Hampton, July 1992.

Invited discussant, *Some success stories in statistical graphics,* Joint Statistical Mtgs, Boston, Aug 1992.

Invited participant, *Workshop on dynamic displays of disease data,* Carnegie Mellon, Oct 1-3, 1992.

Invited speaker, *Identifying high-risk environments: Geographical analysis of U.S. lung cancer mortality (with J.W. Tukey),* Statistics Department, Carnegie Mellon University, Oct 1992.

Invited seminar, *Trends in prostate cancer mortality: An application of spatial smoothers on mortality rates,* Washington Statistical Society; Division of Cancer Prevention & Control (NCI), November 1992.

Invited seminar, *Choosing among spatial smoothers in practice,* Univ of Colo-Denver & CSU, Jan 1993.

Contributed paper, *A data-analytic approach for estimating lead time and screening benefit based on survival curves in randomized clinical trials* (with P.C. Prorok), NIH Biostatisticians Conference, National Institutes of Health, January 1993.

Contributed paper, *Computer simulation experiments for randomized screening trials* (with P.C. Prorok), Symposium on the Interface: Computer Science and Statistics, San Diego, April 1993.

Session organizer, *Smoothing in data analysis: A tutorial of methods and applications,* Joint Statistical Meetings, San Francisco, August 1993.

Invited discussion leader, *Meaningful graphical displays in manufacturing,* Joint Statistical Meetings, San Francisco, August 1993.

Statistics seminar, *Randomized screening trials: Lead time, benefit time, and variance estimation* (with P.C. Prorok), Department of Mathematics, University of Colorado-Denver, November 1993.

Invited seminar, *Two-dimensional smoothing, with an application to U.S. prostate cancer mortality rates,* Dept. of Statistics, George Mason University, Fairfax VA, December 1993.

DCPC Colloquium, *A data-analytic approach for estimating lead time and screening benefit based on survival curves in randomized clinical trials* (with P.C. Prorok), Division of Cancer Prevention and Control, National Cancer Institute, Bethesda, Maryland, January 1994.

Invited seminar, *Geographic displays of prostate cancer mortality: Smoothing for public health data,* Geographic Cartography Seminar Series, National Center for Health Statistics, January 1994.

Invited speaker, *Estimating the difference in location parameters of two survival curves, with applications to*

screening (with P.C. Prorok), Symposium on Future Directions in Robust Methods and Data Analysis, Princeton, June 1994.

Invited paper, *Estimating lead time and benefit time in randomized cancer screening trials* (with P.C. Prorok), Joint Statistical Meetings, Toronto, August 1994.

Invited session organizer, *Hidden Markov Models,* Joint Statistical Meetings, Toronto, August 1994.

Invited paper, *An application of nonlinear regression in R&D: A case study from the electronics industry,* Fall Technical Conference, Birmingham, October 1994.

Invited seminar, *Estimating lead time and benefit time in randomized cancer screening trials* (with P.C. Prorok), RAND Corporation, Santa Monica, December 1994.

Invited paper, *Geographical trends in cancer mortality: Using spatial smoothers and methods for adjustment,* Medical Mapping Conference, Tampa, February 1995.

Invited seminar, *Statistical methodology for randomized cancer screening trials,* Applied Mathematics, University of Colorado, Boulder, April 1995.

Invited paper, *Geographical Trends in Cancer Mortality: Using Spatial Smoothers and Methods for Adjustment,* Symposium in honor of John W. Tukey, Princeton, June 1995.

Session chair, *Nonparametric regression*, Joint Statistical Meetings, Orlando, August 1995.

Invited seminar, *An application of nonlinear regression in R&D: A case study from the electronics industry,* Department of Mathematics, Colorado School of Mines, September 1995.

Invited seminar, *Smoothing geographical data, particularly rates of disease,* Department of Statistics, Iowa State University, March 1996.

Invited paper, *Modeling printed circuit board yields* (with L. Denby), ASA Colorado-Wyoming Chapter Meeting, April 1996.

Invited paper, *Statistical modeling in cancer screening,* WNAR meeting, Pullman WA, Jun 1996.

Organizer and Moderator, *New directions for Markov Chain Monte Carlo,* Sydney International Statistical Congress, Sydney, July 1996.

Roundtable discussion leader, *Collaboration between academic and industrial statisticians,* Joint Statistical Meetings, Chicago, August 1996.

Special poster, *Case studies in industry* (with L. Denby), Joint Statistical Meetings, Chicago, Aug 1996.

Invited paper, *Homology and clustering of regulatory cancer genes and non-regulatory genes based on intronic regions* (with D.L. Hall and A.L. Malkinson), Statistics in the Sciences, Halifax, August 1996.

Invited seminar, *Geographic trends in cancer mortality: Using spatial smoothers and methods for adjustment,* Department of Statistics, Kansas State University, December 1996.

Course instructor, *Exploratory Data Analysis* (with Sallie Keller-McNulty), CDC-ATSDR Symposium on Statistical Methods in Public Health, Atlanta, January 28, 1997.

Invited paper (plenary), *Simultaneous smoothing and adjusting mortality rates in U.S. counties: Melanoma in White Females and White Males,* CDC-ATSDR Symposium on Statistical Methods in Public Health, Atlanta, January 29, 1997.

Invited symposium, *Lead Time and Benefit in Randomized Screening Trials,* ASA Cincinnati Chapter and University of Cincinnati, March 1997.

Invited presenter, *Nonlinear Smoothing and Adjustment of Cancer Rates,* Workshop on Spatial Epidemiology, Vancouver, B.C., May 1997.

Invited lecture, *A Whirlwind View of Exploratory Data Analysis,* CDC-ATSDR EIS Officers Training, Atlanta, July 17, 1997.

Invited talk, *Statistical Issues in Screening Methodology,* Institute for Mathematical Applications, University of Minnesota, July 24, 1997.

Discussant, *Statistical Methods for Standards* (with V.N. Nair), ISI Meeting, Istanbul, Aug 1997.

Seminar, *A new paradigm for hypothesis testing and confidence intervals,* CU-Denver, 1 April 1998.

Seminar, *Some simple tools in Exploratory Data Analysis,* CU-Denver, 17 Sep 1998.

Geographical Trends in Cancer Mortality: Using Spatial Smoothers and Methods for Adjustment. Duke University, October 17, 1998; ASA Cleveland Chapter, Case Western Reserve University, October 29, 1998; Southern Methodist University, November 20, 1998.

Moderator, Workshop on Large Data Sets, University of Waterloo, May 6-8, 1999.

Moderator, Gordon Research Conference, Statistics in Chemistry & Chemical Engineering, July 1999.

Organizer & Moderator, *Technometrics* Invited Paper Sessions, Spring Research Conference, June 3, 1999 (Minneapolis); Joint Stat Mtgs, Aug 10, 1999 (Baltimore); Fall Technical Conf, Oct 23, 1999 (Houston).

Seminar, *Length biased sampling in reliability applications*, TSA-1 Statistics Group, Los Alamos National Laboratory, March 21, 2000.

Seminar, *Estimating lead time and benefit time in randomized cancer screening trials*, Virginia Polytechnic Institute, March 30, 2000.

Invited presenter, *Trends in research and science in Technometrics*, ASA-IMS-SIAM Summer Research Conference, Williamsburg, June 5, 2000.

Invited presenter, *Simulating survival probabilities of a Mars lander,* Symposium in honor of John Tukey, Princeton, New Jersey, June 16, 2000.

Organizer & Moderator, *Technometrics* Invited Paper Sessions, Spring Research Conference, Jun 29, 2000 (Seattle); JSM, Aug 15, 2000 (Indianapolis); Fall Technical Conference, Oct 13, 2000 (Minneapolis).

Invited speaker, *Statistical issues in randomized screening trials: comparable case groups*, Division of Cancer Prevention and Control, National Cancer Institute, 6 September 2000.

Invited presenter, *A two-dimensional robust nonlinear smoother, with applications to environmental data*, Fourth International Conference on Environmetrics & Chemometrics, Las Vegas, 19 Sep 2000.

Seminar, *The effect of length biased sampled sojourn times in evaluating randomized cancer screening trials*, Department of Statistics, Southern Methodist University, 6 Oct 2000.

Seminar, *A two-dimensional robust nonlinear smoother, with applications to environmental data*, Geophysical Statistics Project Group, National Center for Atmospheric Research, 3 Nov 2000.

Seminar, *A two-dimensional robust nonlinear smoother*, Dept of Math, Univ of Cincinnati, 15 Nov 2000.

Seminar, *The effect of Length biased sampled sojourn times in evaluating randomized cancer screening trials*, Department of Statistics, Rice University, 20 Nov 2000.

Seminar, *The impact of John Tukey on statistics and data analysis*, Univ of Colorado-Denver, 16 Feb 2001.

Organizer/Chair, *Technometrics Invited Session*, Spring Research Conference, Roanoke, 19 June 2001.

Invited discussant, *The false discovery rate for statistical problems in chemistry* (Y. Benjamini), Gordon Research Conference in Statistics in Chemistry and Chemical Engineering, 22 July 2001.

Invited speaker, *John Tukey and Robustness*, Joint Statistical Meetings, Atlanta, Georgia, 12 Aug 2001.

Organizer/Chair, *Technometrics Invited Session*, Joint Statistical Meetings, Atlanta, 13 Aug 2001.

Invited speaker, *In memoriam: John Tukey*, International Statistics Institute, Seoul, Korea, 18 Aug 2001.

Organizer/Chair, *Technometrics Invited Session*, Fall Technical Conference, Toronto, Ontario, 15 Oct 2001.

Contributed paper, *Simulating survival probabilities of a lander mission on Mars,* Army Conference on Applied Statistics, Santa Fe, 24-26 Oct 2001.

Organizer/Chair, *Memorial Symposium in honor of John W. Tukey*, Denver, Colorado, 27 Oct 2001.

Invited seminar, *Measuring the effect of length biased sampling when the variable being sampled is unobserved*, Dept of Statistics, Iowa State Univ, 6 April 2002.

Invited participant, *The role of the mathematical sciences in counterterrorism*, Workshop at the National Academy of Sciences, 26-27 April 2002.

Invited participant, *Future directions for statistics*, National Science Foundation Workshop, 6-8 May 2002.

Invited speaker, *Problems in the analysis of microarray data*, ICORS Robustness Conf, Vancouver, 15 May 2002.

Roundtable discussion leader, *Methods for estimating the effect of length biased sampling*, Joint Statistical Meetings, New York City, 6 Aug 2002.

Contributed paper, *Statistical classification based on contours*, Army Conference on Applied Statistics, Raleigh, 30 Oct - 1 Nov 2002.

Contributed paper, *Temporal trends in gene expression in the murine mammary gland in late pregnancy and early lactation* (with Kathe Bjork, Margaret C. Neville, Tzulip Phang), Butcher Symposium, Broomfield, Colorado, 2-3 Nov 2002.

Plenary address, *Computational Methods in Medical Decision Making: To Screen or Not to Screen?* CDC-ASTDR Symposium on Statistical methods in Public Health, Atlanta, 21-23 January 2003.

Invited seminar, *Analysis of cDNA microarray data*, Mathematics, College of William & Mary, Feb 2003.

Invited seminars, *Simulating survival probabilities of a lander mission on Mars* and *Analysis of cDNA microarray data*, Arizona State University, 22-23 March 2003.

Invited Seminar, *Transformations, background estimation, and process effects in the statistical analysis of microarrays*, Biometry Research Group, National Cancer Institute, 30 March 2003.

Invited Seminar, *Transformations, background estimation, and process effects in the statistical analysis of microarrays*, Department of Statistics, Virginia Tech, 29 April 2003.

Invited speaker, *Two-dimensional smoothers: Headbanging and the Triangle Smoother,* ICORS Conference on Robust Methods, Antwerp, Belgium, July 2003.

Invited speaker, *Model Extrapolation: Three Applications from the Physical Sciences,* Joint Statistical Meetings, San Francisco, California, August 2003.

Invited Seminar, *Transformations, background estimation, and process effects in the statistical analysis of microarrays*, Department of Mathematics, Colorado School of Mines, 5 Sept 2003.

Special Session on Microarrays, *Transformations and background estimation in the statistical analysis of microarrays*, Applied Statistics Conference, Napa, California, 30 Oct 2003.

Contributed paper, *Multivariate equivalence tests with lognormal distributions*, Applied Statistics Conference, Napa, California, 31 Oct 2003.

Invited speaker, *Statistical Process Control in Disease Surveillance,* DIMACS Working Group on Adverse Event/Disease Reporting, Surveillance, and Analysis II, Rutgers University, New Jersey, 19-20 Feb 2004

(http://dimacs.rutgers.edu/Workshops/AdverseEvent2/index.html)

Invited seminar, *Length-biased sampling in randomized screening trials,* Univ of Florida, March 2004.

Invited speaker, *Statistical Analysis of Bullet Lead,* ASA Colorado-Wyoming Chapter, April 2004.

Invited speaker, *Visualizing "Exotic" and "Typical" Internet Traffic Data,* Joint Statistical Meetings, Toronto, August 2004.

Invited speaker, *Late Breaking Session: Forensic Analysis and Statistics,* Joint Statistical Meetings, Toronto, August 2004.

Invited speaker, *Graphical Displays of Internet Traffic Data,* CompStat'04, Prague, August 2004.

Invited speaker, *Visualizing "Exotic" and "Typical" Internet Traffic Data,* George Mason Univ, Nov 2004.

Invited speaker, *Using Graphical Displays to Monitor Internet Traffic Data for Potential Cyberattacks,* Workshop on Statistics for Counterterrorism, New York University, 20 Nov 2004.

Invited speaker, *Statistical methods for analyzing microarray experiments,* Dept of Statistics, Iowa State University, Ames, Iowa, December 2004.

Invited speaker, *Statistical Tests for Bullet Lead Comparisons,* Rice Univ and Texas A&M, April 2005.

Plenary Address, *Statistical Tests for Bullet Lead Comparisons,* 12th Annual Spring Research Conference, Salt Lake City, June 2005.

Topics contributed paper, *Summarizing Internet Traffic Data for Detecting Cyberattacks* (with D.G. Marchette), Joint Statistics Meetings, Minneapolis, August 2005.

Invited seminar, *Summarizing Internet Traffic Data for Detecting Cyberattacks* (with D.G. Marchette and E.J. Wegman), Department of Statistics, Iowa State University, October 2005.

Contributed paper, *Summarizing Internet Traffic Data for Detecting Cyberattacks* (with D.G. Marchette and E.J. Wegman), 11th Army Conference on Applied Statistics, Monterey, California, October 2005.

Invited seminar, *Statistical Tests for Bullet Lead Comparisons,* Department of Statistics, North Carolina State University, 21 March 2006.

Topics contributed paper, *Letter value plots,* Interface Symposium, Pasadena, May 2006; Joint Statistics Meetings, Seattle, August 2006.

Seminar, *Length biased sampling in randomized screening trials,* Statistics Colloquium, CU-Denver, Sept 2006.

Seminar, *Measuring the effect of Length biased sampling,* Mathematical Sciences Section, National Security Agency, 19 September 2006.

Contributed paper, *Letter value plots,* Army Conference on Applied Statistics, Raleigh, October 2006.

Invited talk, *Statistical Tests for Bullet Lead Comparisons,* Dept of Statistics, Florida State Univ, 12/7/06.

Invited seminar, *Length biased sampling in randomized screening trials,* Department of Statistics, Texas A&M University, 22 January 2007.

Presentation, *Statistical issues for NRC's Bullet Lead Committee,* Committee on National Statistics, 9 Feb 2007.

Invited seminar, *Statistical Tests for Bullet Lead Comparisons,* Department of Mathematics, Butler University, 7 March 2007.

Bernard Flury Lecture, *Statistical Tests for Bullet Lead Comparisons,* Department of Statistics, Indiana University, 8 March 2007.

Plenary lecture, *Statistics in Forensic Sciences* Army Conference on Applied Statistics, Oct 2007.

Neyman seminar, *Statistical Tests for Bullet Lead Comparisons,* UC-Berkeley, October 2007.

Invited seminar, *Statistical Tests for Bullet Lead Comparisons,* ASA San Francisco Bay Chapter, Jan 2008.

Invited seminar, *Statistical Tests for Bullet Lead Comparisons,* Washington Statistical Society, Feb 2008.

Invited seminar, *Massive Data Sets in High-Energy Physics,* Univ of California-San Francisco, Apr 2008.

Invited speaker, *Massive Data Sets in Scientific Applications,* Statistics Conference, West Point Academy, 17 Apr 2008.

Contributed paper, *Statistical Considerations in Large-Scale Screening Programs: Impacts on the Public,* Joint Statistics Meetings, Denver, Aug 2008.

Contributed paper, *Massive Data Sets in High-Energy Physics,* Joint Statistics Mtgs, Denver, Aug 2008.

Keynote paper, *Statistical methods for massive data in physics and genomics,* International Conference on Robust Statistics, Antalya, Turkey, September 2008.

Contributed paper, *Massive Data Sets in High-Energy Physics,* Army Conference on Applied Statistics, Lexington, VA, 23 Oct 2008.

Moderator, *Workshop on Uncertainty Management in Remote Sensing of Climate Data,* National Academy of Sciences, 5 Dec 2008.

Invited seminar, *Statistics & Forensic Science,* Dept of Statistics, Univ of Illinois-UC, 22 Jan 2009.

Invited seminar, *Statistical methodology for massive data sets,* Dept of Statistics, Stern School of Business, New York University, 27 Feb 2009.

Invited seminar, *Statistical methodology for randomized cancer screening trials,* Dept of Statistics and Actuarial Sciences, University of Iowa, 9 Apr 2009.

Invited presentation, *Statistical issues in the evaluation of fingerprint evidence,* Scientific Working Group on Friction Ridge Analysis, Study and Technology (with A. Mazza), St. Paul MN, May 2009.

Invited seminar, *Statistical methods for high-energy physics data,* Jet Propulsion Laboratory, 19 May 2009.

Invited seminar, *Challenges in the statistical analysis of massive data sets,* Dept of Computer Science, Indiana University, 7 Oct 2009.

Invited seminar, *Length biased sampling in randomized screening trials,* Statistics, Purdue, 8 Oct 2009

Contributed paper (with A.M. Santos, presenter): *Robust estimation of mixtures of long-tailed distributions.* Army Conference on Applied Statistics, Phoenix, 22 Oct 2009.

Contributed paper, *Statistical issues in the comparison of multi-dimensional profiles,* Army Conference on Applied Statistics, Phoenix, 23 Oct 2009.

Invited seminar, *Statistical issues in the analysis of massive data sets,* Dept of Statistics, Kansas State University, 11 Mar 2010.

Invited seminar, *Statistical analysis of randomized cancer screening trials,* ASA Kansas Chapter, Mar 2010

Invited presentation, *The NAS Report on Forensic Science,* The 2010 Forensic Science Training, Los Angeles County Public Defender's Office, Los Angeles, 20 Mar 2010.

Invited presentation, *The NAS Report on Forensic Science,* Chesapeake Bay Regional Meeting of the International Association for Identification, Norfolk VA, 25 Mar 2010.

Invited presentation, *Statistical considerations in evaluating forensic science methods,* National Association of Criminal Defense Lawyers, Atlanta, 15 Apr 2010.

Invited speaker, *Statistical Methods in Bullet Lead Analysis,* ASA Toledo Chapter, Bowling Green, Ohio, 29 April 2010.

Invited seminar, *Statistical analysis of Massive Data Sets,* Dept of Mathematics and Statistics, Bowling Green State University, 30 April 2010.

Invited presentation, *Statistical considerations in evaluating forensic science methods,* District Court Federal Judges Workshop, Washington, D.C., 6 May 2010.

Invited presentation, *Effect of influential observations on penalized regression estimators* (with G.V. Rocha), International Conference on Robust Statistics, Prague, 29 Jun 2010.

Invited presentation, *Statistical issues in comparing multidimensional profiles,* International Symposium on Business and Industrial Statistics, Portoroz Slovenia, 8 Jul 2010.

Invited presentation, *Cancer screening and public policy* (with P.C. Prorok), Joint Statistical Meetings, Vancouver, 4 Aug 2010.

Contributed paper (with A.M. Santos), *Robust estimation of heavy-tailed mixtures,* Joint Statistical Meetings, Vancouver B.C., 5 Aug 2010.

Invited seminar, *Exploratory Data Analysis,* Workshop in Methods Series, Indiana University, 8 Sep 2010.

Invited presentation, *Statistical concepts and design in the evaluation of forensic evidence,* Pennsylvania Federal Judges Annual Retreat, Bedford Springs, PA, 20 October 2010.

Invited speaker, *The National Academy of Sciences Report on Review of Scientific Approaches used during the investigation of the 2001 Anthrax Letters,* Pittsburgh Chapter of the ASA, 31 March 2011.

Invited seminar, *Effect of influential observations on penalized regression estimators* (with G.V. Rocha), Carnegie Mellon University, 1 April 2011.

Invited seminar, *Length biased sampling in randomized cancer screening trials* (with P.C. Prorok), University of Cincinnati, 14 April 2011.

Invited seminars, (1) *Length biased sampling in randomized cancer screening trials*; (2) *Statistical analysis of bullet lead*: Northern Illinois University, 21-22 April 2011.

Invited presentation, *The National Academy of Sciences Report on Review of Scientific Approaches used during the investigation of the 2001 Anthrax Letters,* 8th International Conference on Forensic Inference and Statistics (ICFIS'2011), University of Washington, Seattle, 18-21 July 2011.

Invited paper, *Effect of influential observations on penalized regression estimators* (with G.V. Rocha), Joint Statistical Meetings, Miami, 31 July 2011.

Invited paper, *Design of genomic studies for understanding adaptability of organisms to water environments* (with G.V. Rocha, A. Moczak, J.S. Andrews, E. Snell-Rood, T. Kijimoto), 58th World Statistics Congress of the International Statistical Institute, Dublin, 25 August 2011.

Invited tutorial, *Exploratory Data Analysis of Massive Data,* Workshop on Massive Data Sets, Air Force Insitute of Technology, Dayton, Ohio, 6 September 2011.

Invited seminar, *Length biased sampling in randomized cancer screening trials* (with P.C. Prorok), University of Maryland School of Medicine, Baltimore, 18 October 2011.

Contributed paper, *Design of microarray experiments: The square combining table,* Army Conference on Applied Statistics, Annapolis, 19 October 2011.

Contributed paper, *Design and Analysis of Microarray Studies Based on the Square Combining Table,* Bernouilli Society, Istanbul, July 2012.

Chair and Co-Organizer, Invited Session, *The Best of The Annals of Applied Statistics,* Joint Statistical Meetings, San Diego, 2 Aug 2012.

Topic contributed paper, *Estimating Mixture Components from QQ plots: Gene Expression Vectors in Beetles,* Joint Statistical Meetings, San Diego, 1 Aug 2012.

Invited paper, *Design of microarray experiments: The square combining table,* International Conference on Robust Statistics, Burlington VT, 9 Aug 2012.

Invited paper, *Effect of outliers on penalized regression estimators,* COMPSTAT'2012, Cyprus, Aug 2012.

Organizer, *Statistics and High-Energy Physics,* SAMSI Massive Data Sets Opening Workshop, Research Triangle Park, 11 Sep 2012.

Contributed paper, *Geographical adjustment for spatial data,* Army Conference on Applied Statistics, Monterey, CA, 25 Oct 2012.

Panel Chair and Organizer, *Data, Statistics & Pattern Recognition in Forensic Sciences,* NSF Workshop on Strengthening Forensic Science Through Connections with Analytical Sciences, 3-4 Dec 2012, Arlington.

Invited speaker, *Massive Data Sets: Challenges for Statistics,* Draper Laboratories, Cambridge, Massachusetts, 24 Jan 2013.

Invited session speaker, *The Critical Role of Statistics in Development and Validation of Forensic Methods,* American Association for Advancement of Science (AAAS) Annual Meeting, Boston, 20 Feb 2013.

Invited class speaker, *Statistical Methods and Displays for Large Data Sets,* Utah State Univ, 4 Apr 2013.

Invited seminar speaker, *The Critical Role of Statistics in Forensic Science,* Utah State Univ, 5 Apr 2013.

Invited session speaker, *Future directions for Statistics in High-Energy Physics,* SAMSI Program in Massive Data Sets, Durham, North Carolina, 21 May 2013.

Invited speaker, *Useful Statistical Methods for Forensic Science: Research and Process Improvement,* FBI Laboratory, Quantico, VA, 6 Jun 2013.

Topics contributed session speaker, *A Quality Metric for Assessing Quality of Individual Minutiae in Latent Fingerprints* (K. Kafadar, A. Peskin, E. Tabassi), Joint Statistical Meetings, Montreal, Aug 2013.

Keynote Speaker, *Statistical displays and robust methods for analyzing large data sets,* International Association for Statistical Computing Satellite Meeting on Big Data, Seoul, Korea, 22-24 Aug 2013.

Invited speaker, *Effect of length biased sampling and overdiagnosis on survival from screen-detected disease* (with P.C. Prorok), ERCIM on Computational & Methodological Statistics, London, 14-16 Dec 2013.

Invited speaker, *Contributions of Women in Science: Ingredients for Success,* Women in Statistics Conference, Durham, North Carolina, 15-18 May 2014.

Invited panelist, *Editors for Statistics Journals,* Women in Statistics Conference, Durham, 15-18 May 2014.

Invited session organizer, *Statistical models for spatial & high-dimensional data,* Joint conference of International Chinese Statistical Assoc & Korean International Statistical Society, Portland, 15-18 Jun 2014.

Invited speaker, *Data Summaries and Noise Reduction in High-Volume Particle Physics Data,* Joint Statistical Meetings, Boston, 3-7 Aug 2014.

Invited speaker, *Distinguishing "typical" from "exotic" in streaming data sets,* Fourth International Workshop on the Perspectives on High-dimensional Data Analysis (HDDA-IV), Banff, 8-10 Aug 2014.

Colloquium speaker, *Statistical issues in Evaluating Randomized Screening Trials,* UVA, 3 Oct 2014.

Contributed presentation, *Statistical Issues in Evaluation Reliability of Eyewitness Identification Procedures,*

Forensic Science Error Management Conference, Crystal City, Virginia, July 20-24, 2015.

Invited speaker, *The Role of Statistics in Forensic Science: Past, Present, and Future,* Opening Workshop for SAMSI's Program in Forensic Science, Research Triangle Park, Aug 31 - Sep 2, 2015.

Invited speaker, *Methodology Inspired by Applications: Some Examples from John W. Tukey's Work,* John W. Tukey 100th Birthday Celebration, Princeton, 18 Sep 2015.

Invited presenter, *Statistical Issues in the Evaluation and Reliability of Eyewitness Identification Procedures,* Committee on Science, Technology & Law, National Academy of Sciences, 27 Sep 2015.

Invited speaker, *Contributions to Industrial Statistics and their Impact on Medical Screening,* Conference on *From Industrial Statistics to Big Data*, Ann Arbor, MI, 2-3 Oct 2015.

Presenter, *Quality Metrics for Pattern Evidence: Development and Evaluation,* NIST-CSAFE Workshop, National Institute of Standards and Technology, Gaithersburg, 14 Jan 2016.

Invited session speaker, *Statistical Issues in Evaluating the Reliability of Eyewitness Identification Procedures,* Annual Meeting of the American Association for the Advancement of Science, (AAAS), Washington DC, 14 Feb 2016.

Invited lecture, *Statistical Issues in Compositional Analysis of Bullet Lead as Forensic Evidence,* SAMSI Graduate Course in Statistics and Forensic Science, Research Triangle Park, 16 Feb 2016.

Invited speaker, *Statistics and Pattern Evidence in Forensic Science,* SAMSI Undergraduate Workshop in Statistics and Forensic Science, Research Triangle Park, 22-23 Feb 2016.

Invited colloquium, *Statistical Issues in Assessing Reliability of Eyewitness Identification,* Quantitative Collaborative Colloquium, UVA, 25 Feb 2016.

Presenter, *Careers in Statistics,* UVA Statistics Graduate Student Seminar, 24 Mar 2016.

Invited colloquium, *Statistical Methods and Displays for Large Data Sets,* Department of Statistics and Data Science, University of Texas, Austin, 25 March 2016.

Invited speaker, *Life as a Graduate Student at Princeton under John Tukey: A Young Jim Thompson,* Rice University, Houston, 26 April 2016.

Invited session speaker and organizer, *Quality metrics for latent prints,* Transition Workshop in Statistics and Forensic Science, SAMSI, Research Triangle Park, 9 May 2016.

Keynote speaker, *Detecting tiny signals in massive data,* Virginia Academy of Sciences annual meeting, University of Mary Washington, Frederick, Virginia, 19 May 2016.

Contributed Poster, *Statistics and Forensic Science at UVA,* Applied Research Instituteâs Third Annual Conference on National Defense and Intelligence (CNDI): Exploring the Impact of Fundamental Research on National Security and Strategy, Applied Research Institute, University of Virginia, 13 June 2016.

Invited speaker, *Statistical Issues in Assessing Reliability of Eyewitness Identification,* Joint Statistical Meetings, Chicago, 31 July 2016.

Keynote Address, *Beyond the Ivory Tower: Scientific Contributions and Research in Industry, Public Policy, and Government,* Women of Mathematical Psychology Professional Development Symposium, Rutgers University, 4 Aug 2016.

Invited speaker, *Statistical Issues in Assessing Reliability of Eyewitness Identification,* Forensic Science Workshop 1, Isaac Newton Institute, Cambridge U.K., 2 Sep 2016.

Invited presenter, *Quantifying Weight of Pattern Evidence: General Concepts,* Statistics Panel, 11th Meeting of the National Commission on Forensic Science, Washington DC, 13 Sep 2016.

Invited presenter, *Quality Metrics for Pattern Evidence: Development and Evaluation,* Forensic Science Workshop

3, Isaac Newton Institute, Cambridge U.K., 11 Nov 2016.

Invited presenter, *Statistical Issues in Evaluating Screening for Disease,* American Association for the Advancement of Science (AAAS), Boston, 19 Feb 2017.

Contributed paper, *Statistical Modeling and Analysis of Trace Element Concentrations in Forensic Glass Evidence,* Forensic Science International Conference on Error Management, Gaithersburg, 25 July 2017.

Invited colloquium, *Statistical Issues in Assessing Reliability of Eyewitness Identification,* Dept of Statistics, Univ of Michigan, Ann Arbor, 13 Oct 2017.

Invited colloquium, *Statistical Issues in Forensic Science,* Second Annual Conference of National Center for Forensic Science, University of Central Florida, Orlando, 17 Oct 2017.

Invited colloquium, *To Screen or Not to Screen? Statistical Issues in Evaluating Screening for Disease,* UVA Cancer Center, Univ of Virginia, Charlottesville, 20 Oct 2017.

Invited presenter, *The Critical Role of Statistics in Demonstrating Reliability of Expert Evidence,* Committee on Federal Rules of Evidence, Boston, 27 Oct 2017.

Invited colloquium, *Statistical Evaluation of Forensic Glass Evidence.* Dept of Statistics, George Mason Univ, Fairfax VA, 8 Dec 2017.

Special OSAC session, *Statistics for Forensic Science: Never Having to Say You're Certain.* Annual Meeting, American Association of Forensic Science (AAFS), Seattle, 21 Feb 2018.

Co-Organizer and Presenter (with Brandon Garrett), *Forensics, Statistics, and the Law,* University of Virginia School of Law, 26 Mar 2018.
https://content.law.virginia.edu/news/201803/conference-focus-evolution-forensic-evidence

WSS President's Invited Seminar, *The Critical Role of Statistics in Evaluating Forensic Evidence,* Washington Statistical Society, 3 May 2018.

Invited Presentation, *Using Trace Element Concentrations in Forensic Glass Evidence,* Ninth Annual Prescriptions for Criminal Justice Forensics Conference, Fordham University School of Law, 31 May 2018.

Invited Special Lecture, *The Role of Statistics in Forensic Science,* Isobel Loutit Lecture, Statistical Society of Canada Annual Meeting, Montreal, 6 June 2018.

Invited presentation, *2019 ASA Presidential Initiatives,* Statistics Department Chairs Workshop, American Statistical Association, Alexandria, 21 June 2018.

Invited paper, *The Importance of Statistics in Distinguishing Opinion, Relevance, and Demonstrably Sufficient Science,* Joint Statistical Meetings, Vancouver, 29 July 2018.

Invited paper, *The Roots of James Thompson: Life as a Graduate Student at Princeton,* Joint Statistical Meetings, Vancouver, 30 July 2018.

Chair, Invited Paper Session, *The Best of The Annals of Applied Statistics, Joint Statistical Meetings, Vancouver, 30 July 2018.*

Invited Seminar, *The Critical Role of Statistics in Forensic Science,* Department of Statistics, University of Waterloo, 13 September 2018.

Invited Special Lecture, *Making an Impact: Statistics in Forensic Science,* First James R. Thompson Distinguished Lecture Series, Department of Statistics, Rice University, Houston, 1 October 2018.

Presentation, *To Screen or Not to Screen? Evaluating Benefits and Biases in cancer screening trials,* Initiative for Dynamics of Healthy Development, Univ of Virginia, 10 Oct 2018.

Invited Speaker, *Statistical Issues in Evaluating Screening for Disease,* Annual Meeting, ASA Nevada Chapter, Las

Vegas, 13 October 2018.
(community.amstat.org/nevadachapter/events/pastevents/2018events/2018fallsymposium)

Invited presentation, *Using Quality Metrics for Forensic Evidence,* Workshop on Blind Proficiency Testing, Allegheny County of Medical Examiners, Pittsburgh, 1 November 2018.

Invited presentation, *The National Academy of Science Report on Strengthening* Forensic Science in the U.S.: Ten Years Later, Ten Years After "A Path Forward": Strengthening the Connection Between Forensics, Statistics, and Law, Duke Law School, 6 March 2019.

Invited seminar, *The Critical Role of Statistics in Evaluating Forensic Evidence,* Purdue, 16 Apr 2019.

Invited presentation, *The Critical Role of Statistics in Evaluating Forensic Evidence,* Boston Chapter of the ASA, Cambridge MA, 6 May 2019.

Presentation, *The Role of Human Factors in Forensic Science,* All-hands meeting, Center for Statistical Applications in Forensic Evidence (CSAFE), Ames Iowa, 21 May 2019.

Invited session, *The Critical Role of Statistics in Evaluating Forensic Evidence,* International Chinese Statistical Association, Raleigh, 12 June 2019.

Keynote address, *Statistical Considerations in the Analysis of Randomized Cancer Screening Trials,* Non-clinical Biostatistics Conference, New Brunswick NJ, 17 June 2019.

ASA President's Invited Address, *Reinforcing the Impact of Statistics on Society,* Joint Statistical Meetings, Denver, 30 July 2019. (ww2.amstat.org/meetings/jsm/2019/webcasts/index.cfm)

Invited Session, *The Critical Role of Statistics in Evaluating Forensic Evidence,* World Statistical Congress, Kuala Lumpur, 19 August 2019.

Invited Panel of Statistical Society Presidents, *ASA and the Global Community,* World Statistical Congress, Kuala Lumpur, 20 August 2019.

Invited Congressional Testimony, *The Roles of Science and Statistics in Advancing Forensic Science and Standards,* House Committee on Science, Space, and Technology, Washington DC, 10 Sept 2019. https://republicans-science.house.gov/legislation/hearings/full-committee-hearing-raising-bar-progress-and-future-needs-forensic-science

Invited seminar, *Statistical Issues in Assessing Reliability of Eyewitness Identification,* Dept of Statistics, Cornell Univ, Ithaca NY, 9 Oct 2019.

Plenary address, *ASA, Statistics, and "Data Science": Making an Impact,* 2nd Annual Meeting of the Virginia Chapter of the ASA, 25 October 2019.

Keynote address, *ASA, Statistics, and "Data Science": Making an Impact,* Annual Career Day, Southwestern Michigan Chapter of the ASA, Grand Valley State University, 15 November 2019.

Invited Session, *Cliff Spiegelman: NBS, Forensic Science, and More,* Special session in memory of Clifford H. Spiegelman, Joint Statistical Meetings (virtual), 4 August 2020.

Invited Discussant, *The Best of AOAS: Public Policy and Consumer Behavior,* Joint Statistical Meetings (virtual), 5 August 2020.

Invited Session, *P-values: Assumptions, Replicability, and Significance,* Joint Statistical Meetings (virtual), 6 Aug 2020.

Moderator, *The ASA and Data Science* (panel organized by Mark Glickman), Joint Statistical Meetings (virtual), 5 August 2020.

Invited speaker, *Reinforcing the Impact of Statistics on Society,* Department of Mathematics and Statistics, San Diego State University, 4 Dec 2020 (virtual).

Invited panelist, *Exploring the Impact of Statistics in Automated Driving Systems,* ASA Webinar, 27 Jan 2021 (https://youtu.be/48EvJMTsO54).

Invited panelist, *Covid19, Vulnerable Populations & Disinformation:* Research Areas from the Perspective of Migrants & Refugees, ASA Webinar, 6 May 2021 (https://www.youtube.com/watch?v=BDHhdVSmg-0)

Invited panelist, *The Annals of Applied Statistics: Guidelines for publishing papers,* New Researcher's Writing Workshop, National Institute of Statistical Sciences, August 6, 2021.

Organizer & moderator, *The Best of Annals of Applied Statistics,* Joint Statistical Meetings, Aug 11, 2021.

Invited discussant, *Comments on "Statistics in the Pursuit of Justice: A More Principled Strategy to Analyze Forensic Evidence" presented by Alicia Carriquiry,* Joint Statistical Meetings, Aug 12, 2021.

Keynote Address, *The Critical Role of Statistics in Evaluating Forensic Evidence,* International Conference on Advances in Interdisciplinary Statistics and Combinatorics, (UNC-Greensboro), Oct 8, 2021.

Invited seminar, *Accounting for Overdiagnosis in Estimating Components of Survival in Cancer Screening Trials,* Dept of Statistics, George Mason University, Oct 29, 2021.

Distinguished Lecturer, *To Screen or Not to Screen? Using data from randomized screening trials to quantify risks & benefits of cancer screening,* Haverford College, 14 Mar 2022.

Distinguished Lecturer, *Reinforcing the Impact of Statistics on Society,* Haverford College, 14 Mar 2022.

Invited Speaker, *Statistics Meets CSI: The Critical Role of Statistics in Evaluating Forensic Evidence* (Celebrating the Retirement of Professor Katherine Halvorsen), Smith College, 8 April 2022.

Organizer and Chair, *The Best of AOAS* (invited), Joint Statistical Meetings, Washington DC, 7 Aug 2022

Invited speaker, *Statistics Research Driven by Real Problems: The Expanding Legacy of John Tukey's Career in Data Analysis, Robustness, and Service to Science,* (invited session: *Tukey (1962) and the Subsequent Sixty Years of Data Analysis: Perspectives from Government and Social Science Applications*), Joint Statistical Meetings, Washington DC, 7 Aug 2022.

Organizer, *Statistics for Strengthening Inferences from Forensic Evidence* (topic contributed papers), Joint Statistical Meetings, Washington DC, 8 Aug 2022.

Invited speaker, *The Key Roles of Significance Tests, P-Values, and Statistical Methods in Scientific Research* (invited session: *Should Science Abandon Statistical Significance?*), Joint Statistical Meetings, Washington DC, 10 Aug 2022.

Invited Colloquium Speaker, *Statistics Meets CSI: The Critical Role of Statistics in Evaluating Forensic Evidence,* University of Texas-Rio Grande Valley, Edinburgh TX, 19 Sept 2022.

Invited Plenary Speaker, *To Screen or Not to Screen? Using Data From Randomized Screening Trials to Quantify Risks & Benefits of Cancer Screening,* International Conference on Advances in Interdisciplinary Statistics and Combinatorics (AISC), UNC-Greensboro, Oct 8, 2022.

Invited Plenary Speaker, *The Impact of Statistics for Data Science in Society,* Big Data Analytics Symposium 2023, Univ of Central Florida, Orlando: 22 Mar 2023.

Invited Plenary Speaker, *Accounting for overdiagnosis in estimating components of survival time in randomized cancer screening trials* (with Philip C. Prorok), 12th International Conference of the International Biometric Society's Eastern Mediterranean Region, Izmir, Turkey: 8-11 May 2023.

Contributed paper, *Estimating error rates in binary decisions with inconclusive outcomes* (with Sydney Campbell and Jordan Rodu), 11th Int'l Conference on Forensic Inference and Statistics, Lund, Sweden: 12-15 June 2023.

Contributed paper, *Estimating error rates in binary decisions with inconclusive outcomes* (Sydney Campbell, Jordan Rodu), 64th International Statistical Institute World Statistics Congress, Ottawa, Ontario: 16-20 July 2023.

Special Invited Paper Session, *Statistical Computing in 2023: The critical role of Robust Statistical Methods for Big Data,* IASC President's Invited Session, 64th International Statistical Institute World Statistics Congress, Ottawa, Ontario: 16-20 July 2023.

Invited Session Organizer, *James J. Filliben: 53 years of Impact on Statistical Engineering*

Invited Session Speaker, *Jim Filliben's contributions to statistical computing, methodology, and junior colleagues' careers,* Joint Statistical Meetings, Toronto, Ontario: 8 August 2023.

Invited Speaker, *Estimating Error Rates in Binary Decisions with Inconclusive Outcomes,* DaSSWeb - Data Science and Statistics Webinar (virtual), University of Porto, Portugal: 18 Oct 2023.

Henry A. Wallace Memorial Distinguished Lecture, *Robust Methods, Visual Displays, and Statistical Computing: Critical Statistical Methods for Big Data,* 75th Anniversity Research Conference, Dept of Statistics, Iowa State University, Ames, Iowa: 29 Sep - 1 Oct 2023

Invited Speaker, *Statistical Computing, Robust Methods, and Visual Displays: Statistical Methods for Big Data,* Academica Sinica, Taipei, Taiwan: 11-15 December 2023.

Invited paper, *Estimating error rates in binary decisions with inconclusive outcomes* (with Sydney Campbell and Jordan Rodu), 16th International Conference of the ERCIM Working Group on Computational and Methodological Statistics (CMStatistics 2023), Berlin, Germany: 16-18 December 2023.

Invited Speaker, *Statistical Computing, Robust Methods, and Visual Displays: Statistical Methods for Big Data,* IMS International Conference on Statistics and Data Science (ICSDS), Lisbon, Portugal: 18-21 December 2023.

Invited remarks, *Guidance from the 'American Statistical Association Position on Statistical Statements for Forensic Evidence' on Rules of Evidence,* Duke Law Conference on the 2023 Rule 702 Amendments and the Future of Forensic Expert Evidence, Duke University, Jan 26, 2024.

Organizer and moderator, *Covid-19: Data, Statistics, and Policy Lessons for the Future,* American Association for the Advancement of Science Annual Meeting, Denver: 15-17 February 2024.

President's Invited Address, *Statistics FOR Data Science: Combining Statistics and Exploratory Data Analysis,* Statistical Society of Canada Annual Meeting: St John's Newfoundland, 2-5 June 2024. (ssc.ca/en/meeting/annual/presentation/statistics-data-science-combining-statistics-and-exploratory-data)

Topic contributed talk, *Interpretable Classification and Communication in Forensic Nursing,* Joint Statistical Meetings, Portland, 4-7 Aug 2024.

Topic contributed talk, *Error rates with inconclusives* (presented by Sydney Campbell), Joint Statistical Meetings, Portland, 4-7 Aug 2024.

Invited lecture, *Statistics in Law and Forensic Evidence,* Workshop on Law and Technology for Judges (Federal Judicial Center and Bolch Judicial Institute), Duke University, 4-6 Sept 2024.

Invited seminar, *Accounting for overdiagnosis in estimating components of survival time in randomized cancer screening trials,* Dept of Biostatistics, Univ of Florida, Gainesville, 25 Oct 2024.

Courses taught at CU-Denver:

Fall 1993:
Math 6381 Graduate mathematical statistics I
Math 4387 Statistical Methods I

Spring 1994:
Math 6382 Graduate mathematical statistics II
Math 5330 Statistical consulting workshop

Fall 1994:

Math 6027 Robust methods
Math 3800 Probability and Statistics for Engineers

Spring 1995:
Math 5330 Statistical consulting workshop
Math 4820 Introduction to mathematical statistics
Math 4926 Independent Study (Kim Mouty)

Fall 1995:
Math 4027 Exploratory Data Analysis (new course)
Math 6381 Graduate mathematical statistics I
Math 4926 Independent Study (Kim Mouty)

Spring 1996:
Math 6382 Graduate mathematical statistics II
Math 5330 Statistical consulting workshop
Math 4926 Independent Study (Joseph Stasiak)

Fall 1996:
Math 7926 Independent Study (Markus Emsermann)

Spring 1997:
Math 5330 Statistical consulting workshop

Fall 1997:
Math 6381 Graduate mathematical statistics I
Math 7926 Readings: Sampling Theory

Spring 1998:
Math 6382 Graduate mathematical statistics II
Math 7926 Readings: Functional Data Analysis

Fall 1998:
Math 4027 Exploratory Data Analysis
Math 6926 Readings: Advanced methods in EDA
Math 7926 Independent Study (Arnold Levinson)

Spring 1999:
Math 4820 Introduction to Mathematical Statistics
Math 7926 Readings: Advanced Statistical Methods

Fall 1999:
Math 6381 Graduate mathematical statistics I
Math 7926 Readings: Jackknife and Bootstrap

Spring 2000:
Math 6382 Graduate mathematical statistics II
Math 5387 Math Clinic: Survivability of Mars Lander

Fall 2000:
Math 7926 Readings: Methods for data mining

Spring 2001:
Math 4820 Introduction to Mathematical Statistics
Math 6388 Statistical Methods II

Fall 2001:
Math 6926 Readings: Bioinformatics (co-instructors: Greenberg, Briggs)

Spring 2002:
Math 5394 Experimental Design
Math 5330 Statistics Consulting Workshop

Fall 2003:
Math 6381 Graduate mathematical statistics I

Spring 2004:
Math 6382 Graduate mathematical statistics II

Fall 2004:
Math 5060 Exploratory Data Analysis
Math 5776 Math Clinic: Detecting abnormal events in disease data

Spring 2005:
Math 7926: Readings in Advanced methods for EDA

Fall 2005:
Stat 590b Exploratory Data Analysis (Iowa State University)

Spring 2006:
Math 6382 Mathematical Statistics II

Fall 2006:
Math 5060 Exploratory Data Analysis
Math 5396 Bayesian Statistics

Courses taught at Indiana University

Fall 2008:
Stat S470/670 Exploratory Data Analysis

Spring 2009:
Stat S490/690 Statistical Consulting
Stat S710 Statistical Computing

Fall 2009:
Stat S470/670 Exploratory Data Analysis
Stat S480/680 Functional Data Analysis

Spring 2010:
Stat S490/690 Statistical Consulting

Fall 2010:
Stat S470/670 Exploratory Data Analysis

Spring 2011:
Stat S490/690 Statistical Consulting

Fall 2011:
Stat S470/670 Exploratory Data Analysis
Stat S681 Topics: Large-Scale Inference

Spring 2012:
Stat S490/690 Statistical Consulting

Fall 2012:
Stat S470/670 Exploratory Data Analysis
Stat S490/690 Statistical Consulting

Spring 2013:
Stat S699/799 Fundamentals of Exploratory Analysis of Variance

Fall 2013:
Stat S470/670 Exploratory Data Analysis

Courses taught at University of Virginia

Spring 2015:
Stat 5390: Exploratory Data Analysis
Stat 5510: Contemporary Topics in Statistics (with D.J. Spitzner)

Fall 2015:
Stat 5390: Exploratory Data Analysis
Stat 6510: Research in Statistics

Spring 2016:
Stat 5510: Contemporary Topics in Statistics

Fall 2016:
Stat 5390: Exploratory Data Analysis

Spring 2017:
Stat 4995: Statistical Consulting for Undergraduates

Fall 2017:
Stat 5390/5559: Exploratory Data Analysis / Modeling Migration

Spring 2018:
Stat 7995: Statistical Consulting (Graduate Course).

Fall 2018:
Stat 7995: Statistical Consulting (Graduate Course).

Spring 2020:
Stat 7995: Statistical Consulting (Graduate Course).
(Stat 3080: From Data to Knowledge, last 4 weeks only)

Fall 2020:
Stat 7995: EDA/Statistical Consulting (virtual)

Spring 2021:
Stat 7995: Statistical Consulting (virtual)

Spring 2022:
Stat 7995: Statistical Consulting

Fall 2022:
Stat 7995: Statistical Consulting

Fall 2023:
Stat 5390: Exploratory Data Analysis

Spring 2024:
Stat 7995: Statistical Consulting

Fall 2024:
Stat 5390: Exploratory Data Analysis

Spring 2025:
Stat 7995: Statistical Consulting

Spring 2026:
Stat 7995: Statistical Consulting

List of Students and titles of M.S. theses/Ph.D. dissertations (Primary adviser)

1. Carol Siegel, M.P.H. (UCHSC), February 1996: *Geographic analysis of Bordetella pertussis infection in an urban area: A tool for health services planning*
2. Deborah Leigh Hall, Ph.D. (UCHSC), August 1996: *Methodology to determine homology and clustering as applied to intronic regions of regulatory cancer genes and non-regulatory genes*
3. Jennifer Newman, M.S. (UCD), May 1996: *An introduction to genetic statistics and an examination of non-random mating populations*
4. Caroline Bublitz, M.S. (UCD), Dec 1996: *Multiple Comparison Procedures with Unequal Variances*
5. Jean M. Ethredge, M.S. (UCD), December 2000: *Calculating the Effect of Length Biased Sampling on Screen-Detected Cases in Randomized Controlled Screening Trials*
6. Constance L. Tull, M.S. (UCD), December 2001: *A spectral analysis of astrophysical data*
7. Tressa Fowler, M.S. (UCD), December 2002: *Bootstrap Confidence Intervals for the Binomial Parameter: How Good is their Coverage When the Sample Size is a Poisson Random Variable?*
8. Martin Straley, M.S. (UCD), December 2002 (project).
9. Andy Kim, M.S. (UCD), June 2006: Statistical process control procedures applied to disease incidence data from Colorado Department of Public Health and the Environment.
10. Olga Pillitteri, M.S. (UCD), June 2007
11. Joseph Darschewski, M.S. (UCD), December 2007.
12. Mark Werner, Ph.D. (UCD), May 2003: *Identification of multivariate outliers in large data sets.*
13. Gregory Lobser, Ph.D. (UCD), August 2006: *Classification of Continuous Shape Data.*
14. Kathe E. Bjork, Ph.D. (UCHSC), May 2006: *Robust identific.ation and detection of gene expression.*
15. Sonya Heltshe, Ph.D. (UCHSC), July 2007: *Quantification of length biased sampling in randomized cancer screening trials.*
16. Armen Zakharyan, Ph.D. (UCD), May 2009: *Stochastic diffusion model of heterogeneous populations.*
17. A. Melissa Santos, Ph.D. (UCD), August 2011: *Robust estimation of heavy-tailed mixtures.*
18. Zhida Zheng, M.S. (IU), 2014.
19. Maria Ferrara, M.S. (UVA), 2015.
20. Alice Jia Liu, Ph.D. (UVA), May 2020: *Errors-In-Variables and Random Forests: Theory and Application to Eyewitness Identification Data.*
21. Karen Deanna Huang Pan, Ph.D. (UVA), May 2020: *Covariance Estimation for Small Sample Data with Applications to Forensic Glass*
22. Justin Benjamin Weinstock, Ph.D. (UVA), May 2020: *Improving Evaluations of Cancer Screening through Better Methods of Estimating Preclinical Duration Distributions.*

23. Jesse E. Helman, Ph.D. (UVA), 2023 (co-advised with Mark Conaway): *Considering dose reductions and dose interruptions in oncology dose-finding trial design.*
24. Evan M. Bagley, Ph.D. (UVA), May 2023 (co-advised with Nolan Wages): *Phase I cancer clinical trial designs for cell therapies.*
25. Sydney Campbell-Aron, Ph.D. (UVA), Expected May 2025 (co-advised with Jordan Rodu).
25. Connor Celum, Ph.D. (UVA), Expected May 2025 (co-advised with Mark Conaway)

Examining committee member for:

1. Thomas Kammerling, M.S. (UCD, May 1994)
2. Yiming Zhang, Ph.D. (UCHSC, Nov 1995)
3. Anthony Gojanovic, M.S. (UCD, May 1997)
4. Craig Williamson, M.S. (UCD, January 1998)
5. Norman Lemay, M.S. (UCD, May 1998)
6. Anthony Fagan, M.S. (UCD, May 1999)
7. Kathleen Macneal, M.S. (UCD, May 1999)
8. Aaron Harburg, M.S. (UCD, March 2001)
9. David Weizenkamp, Ph.D. (UCHSC, June 2002)
10. Stephen Fisher, M.S. (UCD, June 2006)
11. Jason Gonzales, M.S. (UCD, May 2007)
12. Hasemi Mazdak, Ph.D. (UC-Boulder, December 2007)
13. William Wyatt, Ph.D. (IUB-School of Health & Education, October 2010)
14. Jonathan Warren, Ph.D. (IUB, School of Library & Information Sciences, Dec 2010)
15. Andrew Cornett, Ph.D. (IUB-School of Health & Education, July 2011)
15. Yong Li, Ph.D. (IUB-School of Informatics & Computing, August 2011)
15. Brent Hatfield, Ph.D. (IUB, HPER, expected 2015)
16. J. Samantha Pan, Ph.D. (IUB, Psychology, April 2014)
17. Caitlin Steiner, Ph.D. (UVA, Statistics, April 2016)
18. Miao Lu, Ph.D. (UVA, Statistics, November 2016)
19. Qiannan Yin, Ph.D. (UVA, Statistics)
20. Paul Diver, Ph.D. (UVA, Statistics, April 2017)
21. Maria L. Tackett, Ph.D. (UVA, Statistics, April 2018)
22. Heitor Haselmann Arakawa, Ph.D. (UVA, Systems Engineering, July 2019)
23. Alison Towner, Ph.D. (UVA, Astrophysics, July 2020)
24. Jesse Grabman, Ph.D. (UVA, Psychology, April 2022)
25. Haiyun Jin, Ph.D. (UVA, Statistics, April 2022)
26. Zhen Pu, Ph.D. (UVA, Statistics, Expected May 2024)
27. Eleanor McSpirit, Ph.D. (UVA, Mathematics, Expected May 2024)

BIBLIOGRAPHY - Karen Kafadar
28 April 2025

Publications: Refereed Journals and Book Chapters

1. Kafadar, K.: A biweight approach to the one-sample problem. *Journal of the American Statistical Association 77,* 416-424, 1982.
2. Kafadar, K.: Using biweights in the two-sample problem. *Communications in Statistics (Theory and Methods) 11(17),* 1883-1901, 1982.
3. Kafadar, K.: The efficiency of the biweight as a robust estimator of location. *NBS Journal of Research 88 (2),* 105-116, 1983.
4. Kafadar, K., Rice, J.A., Spiegelman, C.H.: One-sided trimming in small samples with asymmetric contamination. *Communications in Statistics (Theory and Methods) 12(4),* 477-496, 1983.
5. Kafadar, K.: Appendix to: Measurement assurance program for transmittance standards for spectrophotometer linearity testing: Preparation and calibration (K. Eckerle, J. Hsia, V. Widener). *NBS Journal of Research 88(1),* 25-36, 1983.
6. Kafadar, K., Eberhardt, K.R.: Statistical analysis of some gas chromatographic measurements. *NBS Journal of Research 88(1),* 37-46, 1983.
7. Filliben, J.J., Kafadar, K., Shier, D.R.: Testing for homogeneity of two-dimensional surfaces. *Mathematical Modelling 4,* 167-189, 1983. (core.ac.uk/download/pdf/82176209.pdf)
8. Kafadar, K.; Eberhardt, K.R.: Some basic statistical methods for chromatographic data. Chapter 1 in *Advances in Chromatography, Volume 24* (Eds. J.C. Giddings, E. Grushka, J. Cazes, P.R. Brown). CRC Press: New York, 1984, pp. 1-34.
(routledge.com/Advances-in-Chromatography-Volume-24/Giddings/p/book/9780824772536)
9. Suehle, J.S., Linholm, L.W., Kafadar, K.: Minimum test chip sample size selection for characterizing process parameters. *IEEE Transactions on Electron Devices 31(2),* 257-263, 1984.
10. Gaver, D.P., Kafadar, K.: A retrievable recipe for inverse *t*. *American Statistician 38(4),* 308-311, 1984.
11. Kafadar, K.: Monte carlo swindle. In: *Encyclopedia of Statistical Sciences, Volume 5* (Johnson, N.L., Kotz, S., Read, C., Eds.). Wiley: New York, 1985, pp. 617-618.
12. Kafadar, K.: Notched box-and-whisker plot. *Encyclopedia of Statistical Sciences, Volume 6* (Johnson, N.L., Kotz, S., Read, C., Eds.). Wiley: New York, 1985, pp. 367-370.
13. Kafadar, K.: One-wild distribution. *Encyclopedia of Statistical Sciences, Volume 6* (Johnson, N.L., Kotz, S., Read, C., Eds.). Wiley: New York, 1985, pp. 426-427.
14. Kafadar, K., Spiegelman, C.H.: An alternative to ordinary q-q plots: Conditional q-q plots. *Computational Statistics and Data Analysis 4,* 167-184, 1986.
15. Kafadar, K.: Gaussian white-noise generation for digital signal synthesis. *IEEE Transactions on Instrumentation and Measurement IM-35(4),* 492-495, 1986.
16. Kafadar, K.: Robust-resistant line. *Encyclopedia of Statistical Sciences, Volume 8* (Johnson, N.L., Kotz, S., Read, C., Eds.). Wiley: New York, 1988, pp. 169-170.
17. Kafadar, K.: Slash Distribution. *Encyclopedia of Statistical Sciences, Volume 8* (Johnson, N.L., Kotz, S., Read, C., Eds.). Wiley: New York, 1988, pp. 510-511.
18. Kafadar, K.: Stem-and-leaf display. *Encyclopedia of Statistical Sciences, Volume 8* (Johnson, N.L., Kotz, S., Read, C., Eds.), Wiley: New York, 1988:761-763.
19. Kafadar, K., Plouse, L.M.: Circuit design using statistical data analysis. *Hewlett Packard Journal,* Jun 1988, 12-17.

20. Kafadar, K.: Statistical calibration of a vector demodulator. *Hewlett Packard Journal,* Jun 1988, 18-25.

21. Kafadar, K.: Twicing. *Encyclopedia of Statistical Sciences, Volume 9* (Johnson, N.L., Kotz, S., Read, C., Eds.). Wiley: New York, 1988:366.

22. Kafadar, K., J.W. Tukey. A Bidec *t* table. *Journal of the American Statistical Association 83,* 532-539, 1988.

23. Foung, S., Perkins, S., Kafadar, K., Gessner, P., Zimmermann, U.: Development of microfusion techniques to generate human hybridomas. *Journal of Immunological Methods 134:* 35-42, 1990.

24. Kafadar, K.: Designing experiments in research and development: Four case studies. Chapter 2 in *Design of Experiments with Applications in Physical Sciences and Industry* (Ed. S. Ghosh). Marcel Dekker: New York, 1990, pp. 35-72.

25. Kafadar, K., Stroup, D.F.: Analysis of aberrations in public health surveillance data: Estimating variances on correlated samples. *Statistics in Medicine 11:* 1551-1568, 1992.

26. Kafadar, K., Karon, J.M.: An analysis of AIDS incidence data by clustering trends, *Statistics in Medicine 12:* 311-326, 1993.

27. Stroup, D.F., Wharton, M., Kafadar, K., Dean, A.G.: An evaluation of a method for detecting aberrations in public health surveillance data, *American Journal of Epidemiology 137:* 373-380, 1993.

28. Kafadar, K., Tukey, J.W.: U.S. cancer death rates: A simple adjustment for urbanization. *International Statistics Review 61(2):* 257-281, 1993.

29. Kafadar, K., Prorok, P.C.: A data-analytic approach for estimating lead time and screening benefit based on survival curves in randomized clinical trials, *Statistics in Medicine* 13(5/6/7), 569-586, 1994.

30. Kafadar, K.: Invited comment: Imrey, Peter B., Statistical Values, Quality, and Certification, *The American Statistician* 48(2), 79-82, 1994.

31. Kafadar, K.: An application of nonlinear regression in R&D: A case study from the electronics industry, *Technometrics* 36(3), 237-248, 1994.

32. Kafadar, K.: Choosing among two-dimensional smoothers in practice. *Computational Statistics and Data Analysis 18,* 419-439, 1994.

33. Kafadar, K., Prorok, P.C.: Computer simulation experiments for randomized screening trials. *Computational Statistics and Data Analysis 23(2),* 263-291, 1996.
(doi:10.1016/S0167-9473(96)00029-1)

34. Kafadar, K., Freedman, L.S., Goodall, C.R., Tukey, J.W.: Urbanicity-related trends in lung cancer mortality in U.S. counties, White Females and White Males, 1970-1987. *International Journal of Epidemiology,* 25(5), 918-932, 1996.

35. Kafadar, K.: Smoothing geographical data, particularly rates of disease. *Statistics in Medicine 15(23):* 2539-2560, 1996.
(PMID 8961462; 10.1002/(SICI)1097-0258(19961215)15:23<2539::AID-SIM379>3.0.CO;2-B)

36. Kafadar, K.: Geographic trends in prostate cancer mortality: An application of spatial smoothers and the need for adjustment, *Annals of Epidemiology* 7(1), 25-35, 1997. (PMID: 9034405; doi: 10.1016/s1047-2797(96)00101-9)

37. Kafadar, K., Prorok, P.C.: Estimating the difference in location parameters of two survival curves with applications to screening. *Journal of Statistical Planning and Inference,* 57(2), 165-179, 1997.

38. Siegel, Carol; Davidson, Arthur; Kafadar, Karen; Norris, Jill M.; Todd, James; Steiner, John: Geographic analysis of *Bordetella pertussis* infection in an urban area: A tool for health services planning. *American Journal of Public Health 87(12), 2202-2203, Dec 1997.*

39. Kafadar, K.: Geographical Trends in Cancer Mortality: Nonlinear Smoothers and Indirect Adjustment, *The Practice of Data Analysis: Essays in Honor of John W. Tukey* (ed. D.R. Brillinger, L.T. Fernholz, S. Morgenthaler), Princeton University Press, 1997, 217-234.

40. Kafadar, K., Prorok, P.C., Smith, P.J.: An estimate of the variance of estimators for lead time and screening benefit in randomized cancer screening trials. *Biometrical Journal* 40(7):801-821, 1998.

41. Goodall, C.R., Kafadar, K., Tukey, J.W.: Computing and using rural versus urban measures in statistical applications, *The American Statistician 52(2),* 101-111, 1998; doi.org/10.2307/2685467

42. Kafadar, K., Morris, M.D.: Discussion of "Consulting: Real problems, real interactions, real outcomes," by Tweedie et al. *Statistical Science 13(1),* February 1998, 25-29.

43. Curran-Everett, D., Taylor, S., Kafadar, K.: Fundamental concepts in statistics: Elucidation and illustration, *Journal of Applied Physiology* 85(3): 775-786, 1998 (invited review).

44. Kafadar, K., Andrews, J.S.: Investigating the occurrence of health effects and hazards in the community. Chapter 5 of *Statistics in Public Health:* Quantitative Solutions to Public Health Problems (Eds. D.F. Stroup, S.L. Teutsch), Oxford University Press, New York, 1998, 93-122.

45. Hall, D.L., Kafadar, K., Malkinson, A.W.: Statistical Methodology for Assessing Homology of Regulatory Cancer Genes and Non-regulatory Genes Based on Intronic Regions, *Canadian Journal of Statistics* 26(3), 455-465, 1998.

46. Denby, L., Kafadar, K., Land, T.: Modeling circuit board yields. Chapter 17 in *Statistical Case Studies: A Collaboration Between Academe and Industry,* (Eds. R. Peck, L.D. Haugh, A. Goodman), Society for Industrial and Applied Mathematics, Philadelphia, 1998, 217-234.

47. Kafadar, K.: Simultaneous smoothing and adjusting mortality rates in U.S. counties: Melanoma in White Females and White Males. *Statistics in Medicine* 18(23):3167-3188, 1999.
(PMID: 10602143; doi: 10.1002/(sici)1097-0258(19991215)18:23<3167::aid-sim308>3.0.co;2-n)

48. Kafadar, K.: Forty years of *Technometrics*: Past, Present, Future. *Technometrics* 42(1), 2-4, 2000.

49. Kafadar, K.: In Memoriam: John W. Tukey, 1915-2000. *Technometrics* 43(3), 251-255, 2001.

50. Lund, Robert B., Seymour, Lynne, Kafadar, K.: Temperature Trends in the United States, *Environmetrics* 12, 673-690, 2001.

51. Brown, E.R., MaWhinney, S., Young, B., Johnson, S. Kuritzkes, D., Kafadar, K. and Jones, R.H.: Improving the fit of bivariate smoothing splines when estimating longitudinal immunological and virological markers in HIV patients with individual antiretroviral treatment strategies. *Statistics in Medicine* 20:2489-2504, 2001.

52. Kafadar, K.; Horn, P.S.: Smoothing. In: *Encyclopedia of Environmetrics, Volume 4* (Abdel H. El-Shaarawi and Walter W. Piegorsch, editor), Wiley, pp. 2014-2020 (2002).

53. Horn, P.S.; Kafadar, K.: Trimming and Winsorization. In: *Encyclopedia of Environmetrics, Volume 4* (Abdel H. El-Shaarawi and Walter W. Piegorsch, editor), Wiley, pp. 2264-2267 (2002).

54. Kafadar, K.; Morris, M.D.: Nonlinear smoothers in two dimensions for environmental data. *Chemometrics and Intelligent Laboratory Systems* 60,113-125, 2002.

55. Kafadar, K.: The influence of John Tukey's work in Robust Methods for Chemometrics and Environmetrics, *Chemometrics and Intelligent Laboratory Systems* 60:127-134 (2002).

56. Piasecki, Melissa P.; Antonuccio, David O.; Steinagel, Gerri M.; Kohlenberg, Barbara S.; Kafadar, Karen: Penetrating the blind in a study of an SSRI, *Journal of Behavior Therapy and Experimental Psychiatry* 33:234-238 (2002).

57. Kafadar, K., Prorok, P.C.: Alternative definitions of comparable case groups and estimates of lead time and benefit time in randomized cancer screening trials, *Statistics in Medicine* 22(1): 83--111, 2003. (PMID: 12486753; doi:10.1002/sim.1331)

58. Kafadar, K.; Phang, Tzulip: Transformations, Background Estimation, and Process Effects in the Statistical Analysis of Microarrays, *Computational Statistics & Data Analysis* **44**(1-2), 313-338, 2003.

59. Kafadar, K.: John Tukey and Robustness. *Statistical Science* 18(3), 319-331, 2003.

60. (with many others) *Weighing the Evidence: Forensic Analysis of Bullet Lead,* (Kenneth O. MacFadden, Chair), National Research Council, National Academies Press (ISBN 0-309-09079-2), 2004 (www.nap.edu/catalog/10924/forensic-analysis-weighing-bullet-lead-evidence)
Appendices E,F,G,H,I: Statistical analyses.

61. Beall, Jeffrey; Kafadar, K.: The effectiveness of copy cataloging at eliminating typographical errors in shared bibliographic records, *Library Resources & Technical Services* 48(2):92-101 (April 2004).

62. Kafadar, K.; Wegman, E.J.: Graphical displays for internet traffic data. *Proceedings of CompStat 2004, 158-170* (refereed), 2004.

63. Kafadar, K.; Prorok, Philip C.: Computational Methods in Medical Decision Making: To Screen or Not to Screen? *Statistics in Medicine* 24(4): 569-581, 2005. (PMID: 15678410; doi:10.1002/sim.2037)

64. Corbett, Kitty K.; Gonzales, Ralph; Leeman-Castillo, Bonnie A.; Flores, Estavan; Maselli, Judy; Kafadar, Karen: Appropriate antibiotic use: Variation in knowledge and awareness by hispanic ethnicity and language, *Preventive Medicine* 40(1): 162-169, 2005.

65. Gonzales, Ralph; Corbett, Kitty K.; Leeman-Castillo, Bonnie A.; Glazner, Judith; Erbacher, Kathleen; Darr, Carol A.; Wong, Shale; Maselli, Judith H.; Sauaia, Angela; Kafadar, Karen: The 'Minimizing Antibiotic Resistance in Colorado' Project: Impact of Patient Education in Improving Antibiotic Use in Private Office Practices, *Health Services Research* 40(1), 101-116, 2005.

66. Kafadar, Karen: "Microarray Experiments," in *The Encyclopaedic Companion to Medical Statistics,* Hodder Arnold, 222-224, 2005.

67. Kafadar, Karen: "Screening Studies," in *The Encyclopaedic Companion to Medical Statistics,* Hodder Arnold, 315-317, 2005.

68. Beall, Jeffrey; Kafadar, Karen: The Proportion of NUC Pre-56 Titles Represented in OCLC WorldCat, *College & Research Libraries* 66(5), 431-435, 2005.

69. Kafadar, Karen: John Tukey. *Encyclopedia of Biostatistics, Wiley:*
DOI: 10.1002/0470011815.b2a17150, 2005.

70. Kafadar, Karen; Wegman, Edward J.: Visualizing ''typical'' and ''exotic'' Internet traffic data. *Computational Statistics and Data Analysis* **50**, 3721-3743, 2006.

71. Spiegelman, Clifford H.; Kafadar, Karen: Data Integrity and the Scientific Method: The Case of Bullet Lead Data as Forensic Evidence (with discussion), *Chance* 19(2), 17-25, 2006. (published online 02-Aug-2013; doi:10.1080/09332480.2006.10722780)

72. Saha, Nilanjan; Watson, Layne T.; Kafadar, Karen; Onufriev, Alexey; Ramakrishnan, Naren; Vasquez-Robinet, Cecilia; Watkinson, Jonathan: A General Probabilistic Model of the PCR Process, *Applied Mathematics and Computation* 182(1), 232-243, 2006.

73. Du, Yunzhi; Davisson, Muriel T.; Kafadar, Karen; Gardiner, Katheleen: A-to-I pre-mRNA editing of the serotonin 2C receptor: Comparisons among inbred mouse strains, *Gene 382: 39-46 (1 Nov 2006).* Available online at http://www.sciencedirect.com.

74. Beall, Jeffrey; Kafadar, Karen: Measuring Typographical Errors' Impact on Retrieval in Bibliographic Databases (invited), *Cataloging & Classification Quarterly 44(3/4), 197-211, 2007.*

75. Saha, Nilanjan; Watson, Layne T.; Kafadar, Karen; Ramakrishnan, Naren; Onufriev, Alexey; Rao Mane, Shrinivas; Vasquez-Robinet, Cecilia: Validation and Estimation of Parameters for a General Probabilistic Model of the PCR Process, *Journal of Computational Biology* **14**(1), 97-112, 2007.

76. Bjork, Kathe E.; Kafadar, Karen: Systematic order dependent effect in expression values, variance, detection calls and differential expression in Affymetrix GeneChips(R), *Bioinformatics* 2007; doi: 10.1093/bioinformatics/btm450

77. Beall, Jeffrey; Kafadar, Karen: Measuring the Extent of the Synonym Problem in Full-text Searching, *Evidence Based Library and Information Practice* 2008 3(4), 18-33.

78. Gehrke, Allison; Sun, Shaojun; Kurgan, Lukasz A.; Kafadar, K.; Resing, Katheryn A.; Cios, Krzysztof J.: Improved machine learning methods for analysis of gas phase chemistry of peptides, *Bioinformatics* 2008 9:515; doi:10.1186/1471-2105-9-515.

79. Kafadar, K.; Bjork, K.E.: Microarray analysis. *Encyclopedia of Quantitative Risk Assessment, Volume 1* (Edward L. Melnick and Brian S. Everitt, eds.), Wiley, 2008.

80. Gonzales, Ralph; Corbett, Kitty K.; Wong, Shale; Glazner, Judith; Gershman, Kenneth; Deas, Ann; Leeman-Castillo, Bonnie A.; Maselli, Judith H.; Severt-Kuhlmann, Ann; Wigton, Robert S.; Flores, Estevan; Kafadar, Karen: ''Get Smart Colorado'': Impact of a Mass Media Campaign to Improve Antibiotic Use,'' *Medical Care* 2008 46(6), 597-605.

81. (with many others) *Strengthening Forensic Science in the United States: A Path Forward,* (The Honorable H.T. Edwards and C. Gatsonis, Co-Chairs), National Research Council, The National Academies Press (ISBN-10: 0-309-13127-8; ISBN-13: 978-0-309-13127-8), 2009. (http://books.nap.edu/catalog.php?record_id=12589)

82. Kafadar, K.; Prorok, P.C.: Effect of length-biased sampled sojourn times on the survival distribution in randomized cancer screening trials. *Statistics in Medicine, 28(16):2116-2146, 2009.* (doi:10.1002/sim.3601)

83. Peskin, Adele P.; Kafadar, K.; Santos, A.M.; Haemer, Gillian G.: Robust Volume Calculations of Tumors of Various Sizes. *Proceedings of the 2009 International Conference on Image Processing, Computer Vision, and Pattern Recognition.* (Refereed; CD).

84. Peskin, Adele P.; Kafadar, K.; Dima, Alden; Bernal, Javier; Gilsinn, David: Synthetic Lung Tumor Data Sets for Comparison of Volumetric Algorithms. *Proceedings of the 2009 International Conference on Image Processing, Computer Vision, and Pattern Recognition.* (Refereed; CD).

85. (with many others) *An Assessment of NASA's National Aviation Operations Monitoring Service,* (Vijay Nair and Clint Oster, co-chairs), National Research Council, The National Academies Press (ISBN-10: 0-309-14646-1; ISBN-13: 978-0-309-14646-3), 2009. (https://books.nap.edu/catalog.php?record_id=12795)

86. Peskin, Adele P.; Kafadar, K.; Dima, Alden: A Quality Pre-Processor for Biological Cell Images, *Proceedings of the Fifth International Symposium on Visual Computing* (Computational Bio-imaging track; refereed). (G. Bebis et al. (Eds.): ISVC 2009, Part II, LNCS 5876, pp. 1051-1062. Springer, Heidelberg, 2009)

87. Kafadar, K; Bjork, K.E.: ''Microarray Experiments,'' in *The Encyclopaedic Companion to Medical Statistics, 2nd ed.,* Hodder Arnold, 2010.

88. Kafadar, K: ''Screening Studies,'' in *The Encyclopaedic Companion to Medical Statistics, 2nd ed.,* Hodder Arnold, 2010.

89. *Evaluating Testing, Costs, and Benefits of Advanced Spectroscopic Portals: Final Report (Abbreviated Version)* (Robert Dynes, chair; Richard Blahut; Robert Borchers; Philip E. Coyle III, Rober Hagengruber, Carl Henry, John M. Holmes, Karen Kafadar, C. Michael Lederer, Keith Marlow, John Poston, Henry Willis), National Research Council, The National Academies Press (ISBN-10: 0-309-18617-X; ISBN-13: 978-0-309-18617-9), 2011. (http://books.nap.edu/catalog.php?record_id=13082)

90. (with many others) *Review of the Scientific Approaches Used During the FBI's Investigation of the Anthrax Letters* (Alice P. Gast and David Relman, chairs), National Research Council, The National Academies Press (ISBN-10: 0-309-18719-2; ISBN-13: 978-0-309-18719-0), 2011. (http://books.nap.edu/catalog.php?record_id=13098)

91. Kafadar, K.: Statistics in Neuroscience, *The Annals of Applied Statistics* 5(2B), 1127--1131 (doi: 10.1214/11-AOAS485), 2011.

92. Kafadar, K: Modern Multivariate Analysis, *The Annals of Applied Statistics* 5(4), 2265, 2011.

93. Hoaglin, D.C.; Kafadar, K.: Department of Statistics at Princeton University (1965-1985). In: *Strength in Numbers: The Rise of Statistics Departments in the United States* (Alan Agresti, Xiao-Li Meng, Ed.), 2012.

94. Wu, Dongfeng; Kafadar, K; Rosner, Gary L.; Broemeling, Lyle D.: The lead time distribution when lifetime is subject to competing risks in cancer screening, *The International Journal of Biostatistics* 8(1),

ISSN:1557-4679, doi: 10.1515/1557-4679,1363, 2012.

95. Moczek, Armin P.; Kijimoto, Teiya; Pespeni, Melissa; Snell-Rood, Emilie; Rocha, Guilherme V.; Kafadar, Karen: Evolutionary and ecological genomics of plasticity: novel approaches and first insights from the study of horned beetles. In: *Ecological Genomics: Advances in Experimental Medicine and Biology* (C. Landry and N. Aubin-Horth, eds.), 781 (Springer-Verlag): 127-148, 2014.

96. (with many others) *Identifying the Culprit: Assessing Eyewitness Identification* (The Honorable J.S. Rakoff and Thomas D. Albright, Co-Chairs), National Research Council, The National Academies Press (ISBN-13: 978-0-309-31059-8), 2014.
(www.nap.edu/catalog/18891/identifying-the-culprit-assessing-eyewitness-identification)

97. Wu, Dongfeng; Kafadar, Karen; Rosner, Gary L.: Inference of long-term effects and over-diagnosis in periodic cancer screening. *Statistics Sinica* 24: 815-831, 2014.

98. Kafadar, K.: Contributions of Women in Science: Ingredients for Success (invited), *Chance* (online), November 2014 (http://chance.amstat.org/2014/11/contributions-of-women).

99. Kijimoto, Teija; Snell-Rood, Emilie C.; Pespeni, Melissa H.; Rocha, Guilherme V.; Kafadar, Karen; Moczek, Armin P.: The nutritionally responsive transcriptome of the polyphenic beetle *Onthophagus taurus* and the importance of sexual dimorphism and body region. *Proceedings of the Royal Society B* 2014 Dec 22; 281(1797). pii: 20142084. doi: 10.1098/rspb.2014.2084.

100. Kafadar, K.: Statistical Issues in Assessing Forensic Evidence, *International Statistical Review* 83:1, 111-134, 2015. (doi: 10.1111/insr12069)

101. Billard, Lynne; Kafadar, K.: Women in Statistics: Scientific Contributions versus Rewards. Chapter 7 in *Advancing Women in Science: An International Perspective* (Ed. Willie Pearson Jr., Lisa M. Frehill, Connie L. McNeely), Springer, 201-234, 2015.

102. Heltshe, Sonya L.; Kafadar, Karen; Prorok, Philip C.: Quantification of length-bias in screening trials with covariate-dependent test sensitivity, *Biometrical Journal* 57:5, 777-796
doi: 10.1002/bimj.201400152, 2015.

103. Pescosolido, Bernice A.; Martin, Jack K.; Olafsdottir, Sigrun; Long, J. Scott; Kafadar, Karen; Medina, Tait: The Theory of Industrial Society and Cultural Schemas: Does the "Cultural Myth of Stigma" Underlie the WHO Schizophrenia Paradox? *American Journal of Sociology* 121(3): 783-825, 2015.

104. Pierson, Steve; Kafadar, Karen: Statisticians and Forensic Science: A Perfect Match, *Chance* 29(1):4-8, 2016 (doi:10.1080/09332480.2016.1156352; (chance.amstat.org/2016/02/statisticians-and-forensic-science).

105. Saks, Michael J.; Albright, Thomas; Bohan, Thomas L.; Bierer, Barbara E.; Bowers, Michael; Bush, Mary A.; Bush, Peter J.; Casadevall, Arturo; Cole, Simon A.; Denton, M. Bonner; Diamond, Shari Seidman; Dioso-Villa, Rachel; Epstein, Jules; Faigman, David; Faigman, Lisa; Fienberg, Stephen E.; Garrett, Brandon L.; Giannelli, Paul C.; Greely, Henry T.; Imwinkelried Edward; Jamieson, Allan; Kafadar, Karen; Kassirer, Jerome P.; Koehler, Jonathan; Korn, David; Mnookin, Jennifer; Morrison, Alan B.; Murphy, Erin; Peerwant, Nizam; Peterson, Joseph L.; Risinger, D. Michael; Sensabaugh, George F. Jr.; Spiegelman, Clifford; Thompson, William C.; Wayman, James L.; Zabell, Sandy; Zumwalt, Ross E.: Forensic Bitemark Identification: Weak Foundations, Exaggerated Claims, *Journal of Law and the Biosciences,* doi: 10.1093/jlb/lsw045.

106. Munoz-Rubke, Felipe; Kafadar, Karen; James, Karin H.: A new statistical model for analyzing rating scale data pertaining to word meaning, *Psychological Research* (doi:10.1007/s00426-017-0864-8), April 2016.

107. Hofmann, Heike; Kafadar, Karen; Wickham, Hadley: Letter-value plots: Boxplots for large data. *Journal of Computational and Graphical Statistics* 26(3):469-477, 2017
(doi:10.1080/10618600.2017.1305277).

108. Kafadar, K.: Life as a Graduate Student at Princeton under John Tukey: A Young Jim Thompson, *Models and Reality: Festschrift for James Robert Thompson* (James Dobelman, ed.), T&NO, 60-72.

109. Kafadar, Karen: *The Critical Role of Statistics in Demonstrating the Reliability of Expert Evidence, Fordham Law Review* 86(4), https://ir.lawnet.fordham.edu/flr/vol86/iss4/6.

110. Pan, Karen D.; Kafadar, Karen: Statistical Modeling and Analysis of Trace Element Concentrations in Forensic Glass Evidence. *The Annals of Applied Statistics* 12(2):788-814, 2018 (doi: 10.1214/18-AOAS1180). Correction: *AOAS* 13(2):1319-1328, 2019.

111. Salyards, Michael Jeffrey; MacCrehan, William; Denton, M.B.; Kafadar, K; Lednev, Igor; Stern, Hal; Thompson, William: Letter to the Editors Regarding Rodriguez-Cruz, S.E. and R.S. Montreuil: "Assessing the quality and reliability of the DEA drug identification process," *(Forensic Chemistry* 6 (2017): 36-43), 2019.

112. Kafadar, Karen (2019), The need for objective measures in forensic evidence, *Significance* (Special Issue on Forensic Science and Statistics), April 2019, pp.17-20, doi.org/10.1111/j.1740-9713.2019.01249.x

113. Wu, Dongfeng; Kafadar, Karen; Rai, Shesh N.: Inference of Long-Term Screening Outcomes for Individuals with Screening Histories, *Statistics and Public Policy,* 5:1, 1-10, 2019. doi.org/10.1080/2330443X.2018.1438939.

114. Kafadar, Karen; Pan, Karen (2019), ‘‘Latent Fingerprints,’’ Chapter 5 in *Open Forensic Science in R*, ed. Sam Tyner, sctyner.github.io/OpenForSciR/

115. Kelley, Sharon; Gardner, Brett O.; Murrie, Daniel; Pan, Karen D.H.; Kafadar, Karen: How Do Latent Print Examiners Perceive Proficiency Testing? An Analysis of Examiner Perceptions, Performance, and Print Quality, *Science and Justice* 60(2), 120-127, 2020.

116. Kafadar, Karen: Reinforcing the Impact of Statistics on Society, *Journal of the American Statistical Association* 115(530):491-500, 2020 (doi: 10.1080/01621459.2020.1761217) (ww2.amstat.org/meetings/jsm/2019/webcasts/index.cfm)

117 Bernice A. Pescosolido, Bernice A.; Lee, Byungkyu; Kafadar, Karen: Cross-level sociodemographic homogeneity alters individual risk for completed suicide, *Proceedings of the National Academy of Sciences* 117(42) 26170-26175, 2020. (Cozarelli Prize Finalist, Social Science category) (www.pnas.org/content/117/42/26170; doi.org/10.1073/pnas.2006333117)

118. Banks, David L.; Kafadar, Karen; Kaye, David L.; Tackett, Maria L. (Editors): *Handbook of Statistics in Forensic Science*, Chapman & Hall/CRC Press, 2020. (ISBN 9780367527709, doi:10.1201/9780367527709)

119. Pan, Karen D.H.; Kafadar, Karen: Forensic glass evidence. Chapter 18 in *Handbook of Statistics in Forensic Science* (eds. Banks, David L.; Kafadar, Karen; Kaye, David L.; Tackett, Maria L.), 411-442, 2020.

120 Liu, Alice J.; Kafadar, Karen; Garrett, Brandon L.; Yaffe, Joanne: Bringing new statistical approaches to eyewitness evidence. Chapter 21 in *Handbook of Statistics in Forensic Science* (eds. Banks, David L.; Kafadar, Karen; Kaye, David L.; Tackett, Maria L.), 499-540, 2020.

121. Garrett, Brandon L.; Liu, Alice J.; Kafadar, Karen; Yaffe, Joanne; Dodson, Chad S.: Factoring the Role of Eyewitness Evidence in the Courtroom. *Journal of Empirical Legal Studies* 17(3): 556-579, 2020. (onlinelibrary.wiley.com/doi/epdf/10.1111/jels.12259; doi.org/10.1111/jels.12259)

122. Dodson, Chad S.; Garrett, Brandon L.; Kafadar, Karen; Yaffe, Joanne: Eyewitness Identification Speed: Slow identifications from highly confident eyewitnesses hurt perceptions of their testimony, *Journal of Applied Research in Memory and Cognition, 2021.* (doi.org/10.1016/j.jarmac/2020.08.015)

123. Kafadar, Karen: Editorial: Statistical significance, P-values, and replicability, *The Annals of Applied Statistics* 15(3), 1081-1083, 2021 (doi: 10.1214/21-AOAS1500).

124. Yoav Benjamini, Richard D. De Veaux, Bradley Efron, Scott Evans, Mark Glickman, Barry I. Graubard, Xuming He, Xiao-Li Meng, Nancy Reid, Stephen M. Stigler, Stephen B. Vardeman, Christopher K. Wikle, Tommy Wright, Linda J. Young, Karen Kafadar: The 2019 ASA president’s task force statement on statistical significance and replicability, *The Annals of Applied Statistics* 15(3), 1084-1085, 2021 (doi: 10.1214/21-AOAS1501).

125. Kafadar, Karen: Statistical Significance and Replicabilitty, *IMS Bulletin* 50(5):15, 2021 (imstat.org/wp-content/uploads/2021/05/Bulletin50_5.pdf).

126 Benjamin J. Lobo, Denise Bonds, Karen Kafadar: Estimating local prevalence of obesity via survey under cost constraints: Stratifying ZCTAs in Virginia's Thomas Jefferson Health District, *Statistics and Public Policy* 9(1):8-19, 2022 (doi.org/10.1080/2330443X.2021.2016083)

127. Brandon L. Garrett, Chad S. Dodson, Karen Kafadar, Joanne Yaffe: *New Directions in Eyewitness Evidence Research and Practice: Six Years After the National Academy of Sciences Report,* https://eyewitness.projects.law.duke.edu

128. Kafadar, Karen: Statistical Issues in Assessing the Reliability of Eyewitness Identification. Chapter 11 in: *Statistics in the Public Interest: In Memory of Stephen E. Fienberg* (Section 3: Statistics and the Law), (eds. Alicia Carriquiry, William F. Eddy, Judith M. Tanur, Margaret Smykla), Springer, 187-206, 2022.

129. Rodu, Jordan; Kafadar, Karen: The qq boxplot. *Journal of Computational and Graphical Statistics* 31(1):26-39, 2022 (doi.org/10.1080/10618600.2021.1938586)

130. Garrett, Brandon L.; Crozier, William; Modjadidi, Karima; Liu, Alice J.; Kafadar, Karen; Yaffe, Joanne; Dodson, Chad S.: Sensitizing jurors to eyewitness confidence using "reason-based" judicial instructions. *Journal of Applied Research in Memory and Cognition 21(1),* 147-157, 2022. (doi:10.1037/mac0000035)

131. Kafadar, Karen; Carriquiry, Alicia L.: Challenges in Modeling, Interpreting, and Drawing Conclusions from Images as Forensic Evidence, *Statistics in Imaging* 1(1):1-13 (doi.org/10.1080/29979676.2024.2401758).

132. Panagides, Reanna; Kafadar, Karen; Laughon, Kathryn: Enhancing foundational validity of forensic findings in nonlethal medico-legal strangulation examinations, *Journal of Forensic and Legal Medicine* (doi.org/10.1016/j.jflm.2025/102800).

Accepted for Publication (to appear)

1. Dodson, Chad; Seale-Carlisle, Travis M.; Garrett, Brandon L.; Kafadar, Karen; Yaffe, Joanne: Persistence of the verbal overshadowing and weapon focus effects on lineup identification performance. To appear in *Journal of Applied Research in Memory and Cognition.* Advance online publication: https://doi.org/10.1037/mac0000195

Submitted for Publication

In revision (responding to referee commenrs)

1. Kafadar, Karen; Prorok, Philip C.: Estimating Average Durations of Survival Time Components in Screen-Detected Cases Accounting for Overdiagnosis, for *Statistics in Medicine.*

In active preparation

1. Panagides, Reanna; Kafadar, Karen; Laughon, Kathryn: Examining characteristics and injuries of nonlethal strangulation and sexual assault cases presenting to the emergency department.
2. Rodu, Jordan; Kafadar, Karen: The Likelihood Ratio Plot. To be submitted to *Law, Probability, and Risk.*
3. Campbell-Aron, Sydney; Kafadar, Karen; Rodu, Jordan: Estimating Error Rates with Inconclusive Outcomes.
4. Dodson, Chad S.; Garrett, Brandon L.; Kafadar, Karen; Yaffe, Joanne: Examining the relative influence of five factors on eyewitness accuracy: Face recognition ability, the weapon focus effect, same versus cross-race identifications, simultaneous versus sequential lineup presentation and fair versus biased lineups.

Other manuscripts

1. Moczek, Armin P.; Kafadar, K.; Kijimoto, Teiya; Pespeni, Melissa; Rocha, Guilherme V.; Snell-Rood, Emile C.: The nutritionally responsive transcriptome of the polyphenic beetle *Onthophagus taurus* and the importance of gender and body region.
2. Kafadar, K.; Rocha, G.V.: Design and Analysis of microarray experimental data using the square combining table.
3. G.V. Rocha, K. Kafadar: Effect of influential observations on penalized regression estimators.
4. Peskin, Adele P.; Kafadar, Karen: A New Measurement for the Quality of Individual Minutiae in Latent Fingerprints.

Technical reports, Papers in Proceedings and Non-refereed Journals

1. Cox, L.H., Johnson, M.M., Kafadar, K.: Exposition of statistical graphics technology. *Proceedings of the ASA Statistical Computing Section 1982,* Cincinnati, 55-56.
2. Kafadar, K.: Graphical displays in the RF/Microwave measurement industry. *Proceedings of the National Computer Graphics Association 1986,* Anaheim, 677-684.
3. Kafadar, K.: Digital signal synthesis tools model real-world environments. *Electronic Design News,* 239-248, November 12, 1987.
4. Kafadar, K.: A clearer view of the data: Smoothing scatterplots with applications to measurement processes. *Proceedings of the Measurement Science Conference 1988,* Riverside, 283-291.
5. McHenry, E. and Kafadar, K.: Statistical calibration assures accurate vector measurements, *Measurement Science News,* March 1988, 70-76.
6. Geographical Trends in Cancer Mortality: Using Spatial Smoothers and Methods for Adjustment, *Proceedings of the International Symposium on Computer Mapping in Epidemiology and Environmental Health,* eds. Robert T. Aangeenbrug, Paul A. Leaverton, Thomas J. Mason, Graham A. Tobin, World Computer Graphics Foundation, Alexandria, Virginia, April 1997, 82-95.
7. Horn, P.S., and Kafadar, K.: An R-squared for Robust Regression. *Proceedings of the 1995 Joint Statistical Meetings Section on Statistical Computing,* American Statistical Association, 1996.
8. Kafadar, K.: Two dimensional smoothing: Procedures and applications to engineering data. Technical Report No.87, Center for Computational Mathematics, University of Colorado at Denver, 1996.
9. Denby, L.; Kafadar, K.: Modeling printed circuit board yields. *Proceedings of 1996 Joint Statistical Meetings Section on Physical Engineering and Sciences,* American Statistical Association, 1997.
10. Emsermann, M. and Kafadar, K.: Smoothing non-Gaussian data in two dimensions, *Proceedings of the 29th Symposium on the Interface,* Houston, May 1997.
11. Brown, E.R., MaWhinney, S., Young, B., Johnson, S. Kuritzkes, D., Kafadar, K. and Jones, R.H.: Modeling the dynamics in plasma viral load and CD4+ lymphocyte count as a response to treatment changes. XII International Conference on AIDS, Geneva, 1998: 43473.
12. Kafadar, K.: On the job as a statistician, *Stats Magazine* 21 (Winter 1998), 22-23.
13. Chair's corner, *Statistical Computing and Graphics Newsletter,* February 1999 and August 1999.
14. Kafadar, K.; Chang, Insung; Duran, David; Ethredge, Jean; Gojanovic, Anthony; Tilford, William; Tremayne, Ashley; Uiyyasathian, Chariya; Werner, Mark: *Survivability of the Mars Lander.* Technical Report No.113, Center for Computational Mathematics, University of Colorado at Denver, 2000.
15. Kafadar, K.: John Tukey and Robustness. Proceedings of the Annual Meeting of the American Statistical Association, August 5-9, 2001 (Atlanta).
16. Kafadar, K. (adviser); Kim, A.K.; Al-Ramuaizan, S.; Ayalya, C.; Been, A.; Chen, J.; Cook, J.; Duarte, G.; Durso, C.; Gonzales, J.; Huynh, C.; Huynh, T.; Lashuk, I.; Wagner, D.; Sanabria, S.: *Evaluation of statistical methods for detecting disease clusters in space* and time, Technical Report No.219, Center for Computational

Mathematics, University of Colorado at Denver, 2004.

17. Saha, Nilanjan; Watson, Layne T.; Kafadar, Karen; Onufriev, Alexey; Ramakrishnan, Naren; Vasquez-Robinet, Cecilia; Watkinson, Jonathan: A General Probabilistic Model of the PCR Process. Technical Report TR-04-06, Computer Science, Virginia Tech, 2004.
18. Kafadar, K.; Prorok, P.C.: Effect of Length Biased Sampling of Unobserved Sojourn Times on the Survival Distribution When Disease is Screen-Detected. Technical Report No.244, Center for Computational Mathematics, University of Colorado at Denver, June 2007.
19. Peskin, A.; Kafadar, K.; Dima, A.; Bernal, J.; Gilsinn, D.: Synthetic Lung Tumor Data Sets for Comparison of Volumetric Algorithms. The 2009 World Congress in Computer Science, Computer Engineering, and Applied Computing, Las Vegas, NV, July 2009.
20. Peskin, A.; Kafadar, K.; Dima, A.; Bernal, J.; Gilsinn, D.: Robust Volume Calculations of Tumors of Various Sizes, The 2009 World Congress in Computer Science, Computer Engineering, and Applied Computing, Las Vegas, NV, July 2009.
21. Santos, A.M.; Kafadar, K.: Robust Estimation of Mixtures, *Proceedings of the 15th Army Conference on Applied Statistics.*
22. Kafadar, K.: Statistical Issues in Assessing Forensic Evidence. Technical Report 11-01, Indiana University, Dept of Statistics.
23. Kafadar, K.; Jacobsen, R.G.: Statistical issues in the analysis of massive data in high-energy physics experiments. Technical Report 11-02, Indiana University, Dept of Statistics.

24 Kafadar, Karen: *The Roles of Science and Statistics in Advancing Forensic Science and Standards,* Congressional Testimony, 10 Sept 2019, republicans-science.house.gov/legislation/hearings/full-committee-hearing-raising-bar-progress-and-future-needs-forensic-science

Columns and Articles in *Amstat News*

1. *New Year's Resolution: Working Together to Make an Impact with Statistics,* 2 Jan 2019 (1036 views), https://magazine.amstat.org/blog/2019/01/02/new-years-resolution-working-together-to-make-an-impact-with-statistics/

2. *Statistics: Proactive or Reactive?* 1 February 2019 (2,446 views), https://magazine.amstat.org/blog/2019/02/01/statistics-proactive-reactive/

3. *Statistics, Fake News, and AI: Who's on First?* 1 March 2019 (4,593 views), https://magazine.amstat.org/blog/2019/03/01/fakenews/

4. *P-values: To Own or Not to Own?* 1 April 2019 (3,104 views), https://magazine.amstat.org/blog/2019/04/01/pvalues19/

5. *Statistics* **for** Data Science, 1 May 2019 (3,315 views), https://magazine.amstat.org/blog/2019/05/01/statistics-for-data-science/

6. *Statistics and Unintended Consequences,* 1 June 2019 (2,630 views), https://magazine.amstat.org/blog/2019/06/01/unintended-consequences/

7. *2019 Joint Statistical Meetings: Worth Attending in Person?* 1 July 2019 (759 views), https://magazine.amstat.org/blog/2019/07/01/jsm_inperson/

8. *'Making an Impact' in 25 years,* 1 August 2019 (1,191 views), https://magazine.amstat.org/blog/2019/08/01/making-an-impact-in-25-years/

9. *Statistics and Science Policy,* 1 September 2019 (830 views), https://magazine.amstat.org/blog/2019/09/01/prescolumn_sept19/

10. *On Becoming Indispensable,* 1 October 2019 (997 views), https://magazine.amstat.org/blog/2019/10/01/kk_oct2019/

11. *Making a Statistical Impact with Text Data,* 1 November 2019 (948 views), https://magazine.amstat.org/blog/2019/11/01/making-a-statistical-impact-with-text-data/

12. *The Year in Review ... And More to Come,* 1 December 2019 (2,566 views), https://magazine.amstat.org/blog/2019/12/01/kk_dec2019/

13. *A statistician's life* (Celebrating Women in Statistics), 1 March 2019 (1,394 views), https://magazine.amstat.org/blog/2019/03/01/karen-kafadar/

Book Reviews

1. *Robust Inference* (M.L. Tiku, W.Y. Tan, N. Balakrishnan: Marcel Dekker, New York, 1987). *Journal of the American Statistical Association 83,* 270-271, 1988.
2. *Robust Regression and Outlier Detection* (Rousseeuw, P.J., and Leroy, A.M.: Wiley: New York, 1987, 329 pp.). *Journal of the American Statistical Association 84(406),* 617-618, 1989.
3. *Configural Polysampling: A Route to Practical Robustness* (Stephan Morganthaler and John W. Tukey, Eds.: Wiley: New York, 1991), *Journal of the American Statistical Association* 89(425), 355-356, (March 1994).
4. *Time Series Prediction: Forecasting the Future and Understanding the Past.* Andreas S. Weigend and Neil A. Gershenfeld, eds., Addison-Wesley, 1994. *Journal of the American Statistical Association* 89(427), p.1149-50 (September 1994).
5. *Nonlinear Modeling and Forecasting,* Martin Casdagli and Stephen Eubank, Santa Fe Institute, 1992. *Journal of the American Statistical Association* 89(428), p.1569 (December 1994).
6. *The Collected Works of John W. Tukey, Volume VIII: Multiple Comparisons,* 1948-1953. Henry I. Braun, Editor, Chapman & Hall, 1994. *Journal of the American Statistical Association* 89(428), p.1569 (Dec 1994).
7. *Outliers in Statistical Data, 3rd Edition,* Vic Barnett and Toby Lewis, Wiley, 1994. *Journal of the American Statistical Association* 90(429), p.395 (March 1995).
8. *Developments in Time Series Analysis in Honor of Maurice B. Priestly,* T.S. Rao, Ed., Chapman and Hall, 1993. *Journal of the American Statistical Association* 90(430), 810 (June 1995).
9. *Aspects of Uncertainty: A Tribute to D.V. Lindley,* Eds. P.R. Freedman, A.F.M. Smith, Wiley 1994. *Journal of the American Statistical Association* 90(431), 1136 (September 1995).
10. *Statistical Methods for Physical Science,* Eds. J.L. Stanford, S.B. Vardeman, Academic Press, 1994. *Journal of the American Statistical Association* 90(431), 1136 (September 1995).
11. *Time Series, 3rd Edition.* Sir Maurice Kendall and J. Keith Ord, Edward Arnold Publishing, 1990. *Journal of the American Statistical Association* 90(432), 1492-1493 (December 1995).
12. *Time Series, Volumes I and II,* Andrew Harvey, Editor; Edward Elgar Publishing Ltd., 1994. *Journal of the American Statistical Association* 90(432), 1493 (December 1995).
13. *Analysis of Economic Time Series: A Synthesis,* Marc Nerlove, David M. Grether, Jose L. Carvalho, Academic Press, 1995. *Journal of the American Statistical Association* 91(434), 916 (June 1996).

14. *Clinical Trials Dictionary,* Curtis L. Meinert, Johns Hopkins University Press, 1996. *Journal of the American Statistical Association* 91(435), 1380 (September 1996).

15. *CRC Standard Mathematical Tables and Formulae, 30th Ed.* Daniel Zwillinger, Editor; CRC Press, 1996. *Journal of the American Statistical Association* 91(436), 1755 (December 1996).

16. *Cambridge Dictionary of Statistics in the Medical Sciences,* Brian S. Everitt, Cambridge University Press, 1995. *Journal of the American Statistical Association* 92(437), (March 1997).

17. *Green, Brown, and Probability,* Kai Lai Chung, World Scientific Publishing, 1995. *Journal of the American Statistical Association* 92(437), (March 1997).

18. *CRC Handbook of Tables for the Use of Order Statistics in Estimation,* H.L. Harter and N. Balakrishnan, CRC Press, 1996. *Journal of the American Statistical Association* 92(437), (March 1997).

19. *Understanding Medical Research: A Practitioner's Guide,* J.L. Garb, Little, Brown, and Co. 1996. *Journal of the American Statistical Association* 92(438), 798 (June 1997).

20. *Time Series Models in Econometrics, Finance, and Other Fields,* D. R. Cox, D. V. Hinkley & O. E. Barndorff-Nielsen, eds., Chapman and Hall 1996. *Journal of the American Statistical Association* 92(438), 799 (June 1997).

21. *Numerical Algorithms with C/Fortran,* G.E. Mullges & F. Uhlig, Springer 1996. *Journal of the American Statistical Association* 92(438), 800-801 (June 1997).

22. *Statistics and Manufacturing with Subthemes in Environmental Statistics, Graphics and Imaging,* M.E. Meyer and J.L. Rosenberger, eds., Interface Foundation 1995. *Journal of the American Statistical Association* 92(438), 800 (June 1997).

23. *Statistics of Quality,* S. Ghosh, W.R. Schucany, W.B. Smith, eds., Marcel Dekker 1997. *Journal of the American Statistical Association* 92(438), 800 (June 1997).

24. *Festschrift for Lucien Le cam: Research Papers in Probability and Statistics,* D. Polland, E. Torgersen, G.L. Yang, eds., Springer-Verlag 1997. *Journal of the American Statistical Association* 92(440), 1651 (Dec 1997).

25. *Matrix Analysis for Statistics,* James R. Schott, Wiley 1996. *Journal of the American Statistical Association* 92(440), 1653 (Dec 1997).

26. *Encyclopedia of Statistical Sciences, Updated Volume 1,* S. Kotz, C. Read, D. Banks, eds., Wiley 1997. *Journal of the American Statistical Association* 92(440), 1653-4 (Dec 1997).

27. *Discrete Multivariate Distributions,* N.L. Johnson, S. Kotz, N. Balakrishnan, Wiley 1997. *Journal of the American Statistical Association* 92(440), 1654 (Dec 1997).

28. *Geographical and Environmental Epidemiology: Methods for Small Area Studies,* P. Elliott, J. Cuzick, D. English, R. Stern, eds., Oxford University Press, 1996. *Journal of the American Statistical Association* 92(440), 1654-5 (Dec 1997).

29. *The Craft of Scientific Writing, 3rd edition,* Michael Alley, Springer 1996, and *Handbook of Writing for the Mathematical Sciences,* Nicholas J.. Higham, SIAM, 1993. *Journal of the American Statistical Association* 92(440), 1655 (Dec 1997).

30. *Methods for Statistical Data Analysis of Multivariate Observations, 2nd ed.,* R. Gnanadesikan, Wiley 1997. *Journal of the American Statistical Association* 92(440), 1656 (Dec 1997).

31. *Encyclopedia of Statistical Sciences, Update Volume 2,* S. Kotz, N.L. Johnson, D. Banks eds., Wiley 1997. *Journal of the American Statistical Association* 93(443), 1250 (Sept 1998).

32. Neyman, Constance Reid, Springer, 1998, *Journal of the American Statistical Association* 93(443), 1250 (Sept 1998).

33. Recent Advances in Descriptive Multivariate Analysis, T. Wojtek., J. Krzanowski, Academic Press, 1995. *Journal of the American Statistical Association* 93(443), 1251 (Sept 1998).

34. Handbook of Statistics, Volume 3: Time Series: Frequency Domain, D.R. Brillinger, ed., Elsevier Science, 1983. *Journal of the American Statistical Association* 93(443), 1251 (Sept 1998).

35. Sampling Inspection Tables: Single and Double Sampling Plans, Second Edition, H.F. Dodge, H.G. Romig. *Journal of the American Statistical Association* 93(443), 1252 (Sept 1998).

36. *Modern Applied Statistics Using S-Plus, 2nd ed.,* W. Venables, B. Ripley, Springer-Verlag, 1998. *The American Statistician* 86-87 (Feb 1999; with James Koehler)

37. Practical Handbook of Spatial Statistics, Sandra L. Arlinghaus, CRC Press, 1996. *Journal of the American Statistical Association* 94(445), 341 (Mar 1999).

38. *Statistics: Concepts and Controversies, 4th ed.,* David S. Moore, W.H. Freeman and Co., 1997. *The American Statistician,* 53(2), 170 (May 1999).

39. *Statistical Process Control: The Deming Paradigm and Beyond, Second Edition,* James R. Thompson and Jacek Kornoacki, Chapman and Hall, 2001. *Technometrics* 45(1), 103-105 (February 2003).

40. *Testing for Normality,* Henry C. Thode, Jr., Marcel Dekker, 2002. *Journal of the American Statistical Association* 98(463), 765 (September 2003).

Present Address:

University of Virginia
Department of Statistics
Halsey Hall, P.O. Box 400135
Charlottesville, VA 22904
(434) 924-3096 (voice)
(434) 924-3076 (fax)

Residence:
5440 Nassau Circle East
Englewood, Colorado 80113-5134

email: kkafadar@virginia.edu
Citizenship: United States