

Greg Ridgeway

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Rebecca W. Bushnell Professor of Criminology

[Department of Criminology](#)

[Department of Statistics and Data Science](#)

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Education

- **Ph.D. – Statistics (1999)**

Dissertation: *Generalization of Boosting Algorithms and Applications of Bayesian Inference to Massive Datasets*

[Department of Statistics](#), University of Washington, Seattle, WA

Advisors: [David Madigan](#) and [Thomas Richardson](#)

- **M.S. – Statistics (1997)**

[Department of Statistics](#), University of Washington, Seattle, WA

- **B.S. – Statistics (1995)**

[California Polytechnic State University](#), San Luis Obispo, CA

Professional Experience

- **8/2014-present**, [Department of Criminology](#) and [Department of Statistics and Data Science](#), University of Pennsylvania

- Rebecca W. Bushnell Professor of Criminology (7/2022-present)

- Full Professor (7/2020-present)

- [Data-Driven Discovery Initiative](#), Co-director (2021-present)

- Chair, Department of Criminology (7/2019-6/2025)

- Associate Professor (8/2014-6/2020)
- Undergraduate Chair (7/2023-6/2024)
- [Quattrone Center for the Fair Administration of Justice](#), Penn Law (8/2015-present)
- [Center for Causal Inference](#), Perelman School of Medicine (8/2016-present)
- [Graduate Group in Epidemiology and Biostatistics](#), Perelman School of Medicine (12/2017-present)
- [Warren Center for Network and Data Science](#), SEAS (3/2023-present)
- [Population Studies Center](#) (1/2024-present)
- **1/2021-12/2025**, Co-editor-in-chief, [Journal of Quantitative Criminology](#)
- **7/2012-7/2014**, [National Institute of Justice](#), U.S. Department of Justice
Directed the Department of Justice’s science agency (approximately 80 staff; \$250M/year), advancing science and innovation in forensics, technology, and social science
 - Acting Director (1/2013-7/2014)
 - Deputy Director, Senior Executive Service (7/2012-7/2014)
- **7/2000-6/2012**, [RAND Corporation](#)
Led a major research portfolio on policing, courts, corrections, gangs, guns, drugs, and justice policy (approximately 50-person research team; ~40 proposals/year; ~\$10M/year projects)
 - RAND Safety & Justice Program, Director (1/2009-6/2012)
 - RAND Center on Quality Policing, Director (1/2008-6/2012)
 - RAND Safety & Justice Program, Acting Director (11/2007-1/2009)
 - [RAND Statistics Group](#), Senior Statistician (5/2007-6/2012)
 - RAND Safety & Justice Program, Associate Director (8/2006-11/2007)
 - [RAND Statistics Group](https://www.rand.org/statistics.html, Full Statistician (5/2003-5/2007)
 - [RAND Statistics Group](https://www.rand.org/statistics.html, Associate Statistician (7/2000-5/2003)
- **7/2001-8/2001**, Department of Sociology, University of Washington – Visiting Scholar
- **9/1999-6/2000**, Department of Statistics, University of Washington – Lecturer

- **6/1996-9/1997**, [Microsoft Research](#) – Research assistant
- **9/1993-9/1995**, California Department of Mental Health, [Atascadero State Hospital](#) – Research assistant (Clinical Safety Project)
- **8/1994-9/1995**, UC Berkeley Cooperative Extension – Research assistant (Integrated Hardwood Range Management Program)

University Service

- **2021-present**, Co-director, Data Driven Discovery Initiative
Launched a new data science initiative; staffing; post-doc program; data science for social good; seed grants; data science minor (with Bhuv Jain)
- **2022-present**, Committee member, Senate Committee on Students and Educational Policy
Advises on admissions, instruction, academic integrity, teaching evaluation, grading policies, student records, disciplinary systems, and campus environment
- **2019-2025**, Chair, Department of Criminology
Stimulated grant- and donor-funded research (especially Philadelphia justice policy analysis); secured strategic senior hires; seeded crime policy lab
- **2021-2024**, Committee member, Committee on Planning and Priorities
Advises SAS on emerging issues in education, research, and operations
- **2019-2021**, SAS Data Driven Discovery Working Group
Strategic planning on hiring, programming, data science coverage, and new opportunities
- **2014-2023**, Director, Master of Science in Criminology program
Admissions; career planning; alumni network; placements; joint programs (Fels, SP2, Law)
- **2018-2022**, Committee member, Committee on Undergraduate Education
Advises Dean and faculty on SAS undergraduate educational mission
- **2018-2020**, Committee member, Vice Provost for Education Fellowship Selection Committee
Selects nominees for limited-submission fellowships

Awards

- **2025**, [Fellow](#), American Society of Criminology
- **2024**, [Fellow](#), Academy of Experimental Criminology
- **2013**, [Fellow](#), American Statistical Association
- **2007**, American Statistical Association [Outstanding Statistical Application Award](#) (with J. Grogger) for “Testing for racial profiling in traffic stops from behind a veil of darkness.”
RAND Gold Medal Award for contributions advancing RAND’s mission.

- **2005**, Commendation by ATF Los Angeles Field Division and the Attorney General of California for contributions to reducing firearms-related crimes in Los Angeles.
RAND President’s Choice Award for developing pioneering methods for racial profiling.
- **1999**, Z.W. Birnbaum Award (UW Department of Statistics) for excellence in research and presentation.

Patent Awards

- **2014**
 - US Patent [8,719,210](#): “System and Method for Medical Treatment Hypothesis Testing.” Granted May 6, 2014
- **2013**
 - US Patent [8,538,906](#): “System and method for medical treatment hypothesis testing using relative likelihood of treatment results.” Granted September 17, 2013
- **2003**
 - US Patent [6,606,613](#): “Methods and apparatus for using task models to help computer users complete tasks.” Granted August 12, 2003
- **2001**
 - US Patent [6,330,554](#): “Methods and apparatus using task models for targeting marketing information to computer users based on a task being performed.” Granted December 11, 2001
 - US Patent [6,195,622](#): “Methods and apparatus for building attribute transition probability models for use in pre-fetching resources.” Granted February 27, 2001
- **2000**
 - US Patent [6,154,767](#): “Methods and apparatus for using attribute transition probability models for pre-fetching resources.” Granted November 28, 2000
 - US Patent [6,088,718](#): “Methods and apparatus for using resource transition probability models for pre-fetching resources.” Granted July 11, 2000
 - US Patent [6,012,052](#): “Methods and apparatus for building resource transition probability models for use in pre-fetching resources, editing resource link topology, building resource link topology templates, and collaborative filtering.” Granted January 4, 2000

Grants and Contracts

- **2020-2023** – Principal Investigator, “[Prosecutors and Criminal Justice Reform: Independent Research Partnership with the Philadelphia District Attorney’s Office](#),” Arnold Ventures, \$2,509,009 (with Aurélie Ouss)
- **2020-2022** – Co-Principal Investigator, “Evaluation of Philadelphia Group Violence Intervention,” Urban Affairs Coalition and Philadelphia Office of Violence Prevention, \$150,269 (with Ruth Moyer)

- **2020-2022** – Principal Investigator, “Crime Prevention Through Intelligence & Information Sharing,” Neubauer Family Foundation, \$543,298 (with Aaron Chalfin)
- **2016** – Site PI, “Disrupting Illegal Gun Transfers,” NIJ (prime: RAND), 2013-R2-CX-0016, \$42,118
- **2015-2016** – Site PI, “Replication of the Cardiff Violence Prevention Model in the United States,” RWJF (prime: NFCDC&PI), Grant 72352, \$213,572
- **2011-2012** – Program Director, “Developing the Center of Research and Security Studies,” Ministry of Interior, Abu Dhabi, \$1,500,000
- **2010-2012** – Co-PI, “NLECTC Information and Geospatial Technology Center of Excellence,” NIJ 2010-IJ-CX-K007, \$6,000,000 (with John Hollywood)
- **2010-2012** – Co-PI, “Experimental Evaluation of the BJA DMI Training and Technical Assistance Initiative,” BJA 2010-DJ-BX-1672, \$2,900,000 (with Beau Kilmer and Jessica Saunders)
- **2010-2012** – Co-PI, “Enabling the Police to Serve the Needs of 21st Century Israel,” Israel Ministry of Public Security and RAND Israel Policy Fund, \$1,600,000 (with Steven Popper)
- **2010-2012** – Principal Investigator, “Predictive Policing Analytic and Evaluation Research Support,” NIJ 2009-IJ-CX-K114, \$1,084,846
- **2008-2010** – Principal Investigator, “Case weighting for federal public defender services,” AOUSC USCA08F0404, \$564,510 (with Nick Pace)
- **2008-2012** – Principal Investigator, “Evaluation of the Los Angeles County Juvenile Justice Crime Prevention Act Programs,” LA County Probation, \$1,610,000 (with Terry Fain and Susan Turner)
- **2008** – Principal Investigator, “Development of internal benchmarking system,” New York City Police Foundation, \$32,000
- **2007** – Principal Investigator, “Assessment of racial bias in NYPD stop, question, and frisk practices,” New York City Police Foundation, \$120,000
- **2007-2008** – Principal Investigator, “Strategies for improving police recruiting,” San Diego Police Department, \$160,000
- **2006-2007** – Co-PI, “Analysis of Graduate Driver Licensing - Lower Risk Exposure or Better Driving?,” NICHD 1R03HD052547-01, \$184,122 (with Pinar Karaca-Mandic)
- **2004-2009** – Principal Investigator, “Improving Police-Community Relations in Cincinnati,” City of Cincinnati 45X0028, \$1,581,300
- **2002-2004** – Principal Investigator, “DOJ Racial Profiling Initiative,” City of Oakland

EM3.20.02, \$75,000

- **2001-2008** – Co-PI, “Strategic Disruption of Firearms Markets,” NIJ 2001-IJ-CX-0028, \$647,952 (with George Tita)
- **2001-2002** – Principal Investigator, “Data mining and Columbia counterdrug strategies,” Office of the Secretary of Defense (three projects) \$57,845, \$27,965, \$19,165

Publications

Working papers

G. Ridgeway and C. Loeffler (2027). “Crime Statistics,” *Annual Review of Statistics and Its Applications*, 14.

J.R. Gyourko and G. Ridgeway. “Safeguarding the Credit Records of Youth in Foster Care: What Interventions Reduce Risk of Child Identity Fraud?”

R. Hester, G. Ridgeway, and R. Labrecque. “Fairness Regularized Risk Assessment Models: Balancing Risk Prediction with Racial and Ethnic Equality”

Peer-reviewed articles

G. Ridgeway (to appear). “[A Conditional Ordinal Stereotype Model to Estimate Police Officers’ Propensity to Escalate Force](#),” *Journal of the American Statistical Association*. ([Data and code](#)) ([Supplemental appendix](#)) ([Additional mathematical details](#))

F.A. Amaral, C. Loeffler, and G. Ridgeway (2024). “[Prosecutorial discretion not to invoke the criminal process and its impact on firearm cases](#),” *Journal of Criminal Justice*, 95:102313.

J.R. Gyourko and G. Ridgeway (2024). “[Predictors of Identity Fraud Victimization of Adolescent Youth in Foster Care](#),” *Victims & Offenders*.

V. Nguyen and G. Ridgeway (2023). “[Judges on the Benchmark: Developing a Sentencing Feedback System](#),” *Justice Quarterly*, 41(1):1-37.

E.C. South, J.M. MacDonald, V.W. Tam, G. Ridgeway, and C.C. Branas (2023). “[Effect of Abandoned Housing Interventions on Gun Violence, Perceptions of Safety, and Substance Use in Black Neighborhoods: A Citywide Cluster Randomized Trial](#),” *JAMA Internal Medicine* 183(1):31-39.

Z. F. Meisel, F. Shofer, A. Dolan, E. B. Goldberg, K. V. Rhodes, E. P. Hess, V. R. Bellamkonda, J. Perrone, C. C. Cannuscio, L. Becker, M. A. Rodgers, M. M. Zyla, J. J. Bell, S. McCollum, E. Engel-Rebitzer, M. J. Nguemeni Tiako, G. Ridgeway, and M. M. Schapira (2022). “[A multicentered randomized controlled trial comparing the effectiveness of pain treatment communication tools in emergency department patients with back pain or kidney stone pain](#),” *American Journal of Public Health* 112(S1):S45-S55.

G. Ridgeway, J. Rosenberger, and L. Xue (2021). “[Statisticians Engage in Gun Violence Research](#),” *Statistics and Public Policy* 8(1):73-79.

- Y. Wu and G. Ridgeway (2021). “Effect of Public Transit on Crime: Evidence from SEPTA strikes in Philadelphia,” *Journal of Experimental Criminology* 17:267-286.
- G. Ridgeway, B. Cave, J. Grieco, and C.E. Loeffler (2021). “A Conditional Likelihood Model of the Relationship Between Officer Features and Rounds Discharged in Police Shootings,” *Journal of Quantitative Criminology* 37(1):303-326.
- R. Moyer and G. Ridgeway (2020). “The Effect of Outpatient Methadone Maintenance Treatment Facilities on Place-Based Crime,” *Journal of Experimental Criminology* 16(2):227-245.
- G. Ridgeway, R. Moyer, and S. Bushway (2020). “Sentencing Scorecards: Reducing Racial Disparities in Prison Sentences at Their Source,” *Criminology & Public Policy* 19(4):1113-1138.
- G. Ridgeway (2020). “The Role of Individual Officer Characteristics in Police Shootings,” *The ANNALS of the American Academy of Political and Social Science* 687(1):58-66. (technical appendix showing the decomposition of information)
- G. Ridgeway, J. Grogger, R.A. Moyer, and J.M. MacDonald (2019). “Effect of Gang Injunctions on Crime: A Study of Los Angeles from 1988-2014,” *Journal of Quantitative Criminology* 35(3):517-541.
- C.E. Loeffler, J.M. Hyatt, and G. Ridgeway (2019). “Measuring Self-Reported Wrongful Convictions Among Prisoners,” *Journal of Quantitative Criminology* 35(2):259-286.
- R. Moyer, J.M. MacDonald, G. Ridgeway, and C. Branas (2019). “Effect of Remediating Blighted Vacant Land on Shootings: A Citywide Cluster Randomized Trial,” *American Journal of Public Health* 109(1):140-144.
- G. Ridgeway, M. Nørgaard, T.B. Rasmussen, W.D. Finkle, L. Pedersen, H.E. Bøtker, and H.T. Sørensen (2019). “Benchmarking Danish Hospitals on Mortality and Readmission Rates After Cardiovascular Admission,” *Clinical Epidemiology* 11:67-80.
- Ridgeway, G. (2019). “Experiments in Criminology,” *Annual Review of Statistics and Its Applications*, 6:37-61.
- O. Mitchell and G. Ridgeway (2018). “Assessing the Fairness and Effectiveness of Bicycle Stops in Tampa,” *Police Quarterly* 21(4):461-485.
- J. Lyons, V. Desai, Y. Xu, G. Ridgeway, W. Finkle, P. Solari, S. Sullivan, S. Lanes (2018). “Development and Validation of an Algorithm for Identifying Patients with Hemophilia A in an Administrative Claims Database,” *Value in Health* 21(9):1098-1103.
- S.F. Jacoby, L.M. Kollar, G. Ridgeway, S.A. Sumner (2018). “Health System and Law Enforcement Synergies for Injury Surveillance, Control and Prevention: A Scoping Review,” *Injury Prevention* 24:305-311.
- V. Bacak and G. Ridgeway (2018). “Availability of Health-Related Programs in Private and Public Prisons,” *Journal of Correctional Health Care* 24(1):62-70.
- S.-L. Faraji, G. Ridgeway, and Y. Wu (2018). “Effect of Emergency Winter Homeless Shelters on Property Crime,” *Journal of Experimental Criminology* 14(2):129-140.
- G. Ridgeway (2018). “Policing in the Era of Big Data,” *Annual Review of Criminology*, 1:401-419.
- R. Umbach, A. Raine, and G. Ridgeway (2017). “Aggression and Lost Sleep: a Daylight Saving Time Natural Experiment,” *Journal of Experimental Criminology* 13(4):439-453.

- G. Ridgeway (2017). “[Stop-and-Frisk is Essential... and Requires Restraint](#),” *Journal of Policy Analysis and Management* 36(3):683-689 (with discussion and rejoinder).
- G. Ridgeway and J.M. MacDonald (2017). “[Effect of Rail Transit on Crime: A Study of Los Angeles from 1988-2014](#),” *Journal of Quantitative Criminology* 33(2):277-291.
- G. Ridgeway and B. Kilmer (2016). “[Bayesian inference for the distribution of grams of marijuana in a joint](#),” *Drug and Alcohol Dependence* 165:175-180.
- G. Ridgeway (2016). “[Officer Risk Factors Associated with Police Shootings: A Matched Case-Control Study](#),” *Statistics and Public Policy* 3(1):1-6.
- G. Ridgeway, S. Kovalchik, B.A. Griffin, and M.U. Kabeto (2015). “[Propensity score analysis with survey weighted data](#),” *Journal of Causal Inference* 3(2):237-249.
- J. Saunders, R. Lundberg, A.A. Braga, G. Ridgeway, and J. Miles (2015). “[A Synthetic Control Approach to Evaluating Place-Based Crime Interventions](#),” *Journal of Quantitative Criminology* 31(3):413-434.
- W.D. Finkle, S. Greenland, G. Ridgeway, J.L. Adams, M.A. Frasco, M.B. Cook, J.F. Fraumeni, R.N. Hoover (2014). “[Increased Risk of Non-fatal Myocardial Infarction Following Testosterone Therapy Prescription in Men](#),” *PLOS One* 9(1):e85805.
- G. Ridgeway and J.M. MacDonald. “[A Method for Internal Benchmarking of Criminal Justice System Performance](#),” *Crime & Delinquency* 60(1):145-162.
- A.A. Braga, G.J. Wintemute, G.L. Pierce, P.J. Cook, and G. Ridgeway (2012). “[Interpreting the empirical evidence on illegal gun market dynamics](#),” *Journal of Urban Health* 89(5):779-93.
- D. Golinelli, G. Ridgeway, H. Rhoades, J. Tucker and S. Wenzel (2012). “[Bias and variance trade-offs when combining propensity score weighting and regression: with an application to HIV status and homeless men](#),” *Health Services and Outcomes Research Methodology* 12(2-3):104-118.
- W.D. Finkle, J.S. Der, S. Greenland, J.L. Adams, G. Ridgeway, T. Blaschke, Z. Wang, R.M. Dell, and K.B. VanRiper (2011). “[Risk of Fractures Requiring Hospitalization After an Initial Prescription for Zolpidem, Alprazolam, Lorazepam, or Diazepam in Older Adults](#),” *Journal of the American Geriatrics Society* 59(10):1883-1890.
- G. Ridgeway, A. Braga, G. Tita, and G. Pierce (2011). “[Intervening in gun markets: An experiment to assess the impact of targeted gun law messaging](#),” *Journal of Experimental Criminology* 7(1):103-109.
- J.M. MacDonald, R.J. Stokes, D. Cohen, A. Kofner, and G. Ridgeway (2010). “[The Effect of Light Rail Transit on Body Mass Index and Physical Activity](#),” *American Journal of Preventive Medicine* 39(2):105-112.
- P. Karaca-Mandic and G. Ridgeway (2010). “[Behavioral Impact of Graduated Driver Licensing on Teenage Driving Risk and Exposure](#),” *Journal of Health Economics* 29:48-61.
- G. Ridgeway and J.M. MacDonald (2009). “[Doubly Robust Internal Benchmarking and False Discovery Rates for Detecting Racial Bias in Police Stops](#),” *Journal of the American Statistical Association* 104(486):661-668.
- R. Lin, T.A. Louis, S.M. Paddock, G. Ridgeway (2009). “[Ranking USRDS provider specific SMRs from 1998-2001](#),” *Health Services and Outcomes Research Methodology* 9(1):22-38.

- R.J. Stokes, J.M. MacDonald, and G. Ridgeway (2008). “[Estimating the effects of light rail transit on health care costs](#),” *Health & Place* 14(1):45-58.
- MacDonald, J.M., R.J. Stokes, G. Ridgeway, and K.J. Riley (2007). “[Race, Neighborhood context, and perceptions of injustice by the police](#),” *Urban Studies* 44(13):2567-2585.
- D.F. McCaffrey, A.R. Morral, and G. Ridgeway, B.A. Griffin (2007). “[Interpreting treatment effects when cases are institutionalized after treatment](#),” *Drug and Alcohol Dependence* 89(2-3):126-138.
- G. Tita and G. Ridgeway (2007). “[The impact of gang formation on local patterns and levels of crime](#),” *Journal of Research in Crime and Delinquency* 44(2):208-237.
- R.N. Bluthenthal, G. Ridgeway, T. Schell, R. Anderson, N.M. Flynn, and A.H. Kral (2007). “[Examination of the association between syringe exchange program \(SEP\) dispensation policy and SEP client-level syringe coverage among injection drug users](#),” *Addiction* 102(4):638-646.
- R. Boer, Y. Zheng, A. Overton, G. Ridgeway, D. Cohen (2007). “[Neighborhood Design and Walking Trips in 10 U.S. Metropolitan Areas](#),” *American Journal of Preventive Medicine* 32(4):298-304.
- R. Lin, T.A. Louis, S.M. Paddock, and G. Ridgeway (2006). “[Loss Function Based Ranking in Two-Stage Hierarchical Models](#),” *Bayesian Analysis* 1(4):915-946.
- G. Tita, A. Braga, G. Ridgeway, G. Pierce (2006). “[The criminal purchase of firearm ammunition in Los Angeles, California](#),” *Injury Prevention* 12:308-311.
- J. Grogger and G. Ridgeway (2006). “[Testing for racial profiling in traffic stops from behind a veil of darkness](#),” *Journal of the American Statistical Association* 101(475):878-887. [ASA 2007 Outstanding Statistical Application Award](#)
- S.M. Paddock, G. Ridgeway, R. Lin, T.A. Louis (2006). “[Flexible distributions for triple-goal estimates in two-stage hierarchical models](#),” *Computational Statistics and Data Analysis* 50(11):3243-3262.
- G. Ridgeway (2006). “[Assessing the effect of race bias in post-traffic stop outcomes using propensity scores](#),” *Journal of Quantitative Criminology* 22(1):1-29. [Example code](#) and [dataset](#).
- D.A Cohen, T.A. Farley, K. Mason, and G. Ridgeway (2006). “[The collectivity of sexual behaviour](#),” *International Journal of STD & AIDS* 17(3):151-156.
- C. Guarino, G. Ridgeway, M. Chun, and R. Buddin (2005). “[Latent Variable Analysis: A New Approach to University Ranking](#),” *Higher Education in Europe* 30(2):147-165. [Preprint version](#)
- D. McCaffrey, G. Ridgeway, A. Morral (2004). “[Propensity score estimation with boosted regression for evaluating adolescent substance abuse treatment](#),” *Psychological Methods* 9(4):403-425. [Included in J. Miles and B. Stucky (editors) (2014). *Quantitative Psychology*, SAGE Publications.]
- A.R. Morral, D.F. McCaffrey, G. Ridgeway (2004). “[Effectiveness of community-based treatment for substance abusing adolescents: 12-month outcomes from a case-control evaluation of a Phoenix Academy](#),” *Psychology of Addictive Behaviors* 18(3):257-268.
- G. Ridgeway and D. Madigan (2003). “[A sequential Monte Carlo method for Bayesian analysis of massive datasets](#),” *Data Mining and Knowledge Discovery* 7(3):301-319.
- D. Relles, G. Ridgeway, and G. Carter (2003). “[Data mining and the implementation of a prospective payment system for inpatient rehabilitation](#),” *Health Services and Outcomes Research Methodology* 3:247-266.

- G.M. Carter, D.A. Relles, G. Ridgeway, C.M. Rimes (2003). “[Measuring function for Medicare inpatient rehabilitation payment](#),” *Health Care Financing Review* 24(3):25-44.
- G. Ridgeway and D. Madigan (2002). “[Bayesian analysis of massive datasets via particle filters](#),” *Proceedings of the Eighth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 5-13.
- D. Madigan, N. Raghavan, W. DuMouchel, M. Nason, C. Posse, and G. Ridgeway (2002). “[Likelihood-Based Data Squashing: A Modeling Approach to Instance Construction](#),” *Data Mining and Knowledge Discovery* 6(2):173-190.
- G. Ridgeway (2002). “[Looking for Lumps: Boosting and bagging for density estimation](#),” *Computational Statistics and Data Analysis* 38(4):379-392. ([R script](#))
- D. Rusk, K. Lin, D. Swartz, and G. Ridgeway (2002). “[Bayesian Updating of Damage Size Probabilities for Aircraft Structural Life-Cycle Management](#),” *Journal of Aircraft* 39(4):689-696.
- G. Ridgeway, D. Madigan, T. Richardson, and J. O’Kane (1998). “[Interpretable boosted naïve Bayes classification](#),” *Proceedings, Fourth International Conference on Knowledge Discovery and Data Mining* (R. Agrawal, P. Stolorz, G. Piatetsky-Shapiro, eds.), 101-104.

Peer-reviewed reports

- G. Ridgeway, O. Mitchell, S. Gunderman, C. Alexander, J. Letten (2016). [An Examination of Racial Disparities in Bicycle Stops and Citations Made by the Tampa Police Department](#), COPS-W0801.
- T. Fain, S. Turner, and G. Ridgeway (2012). [Los Angeles County Juvenile Justice Crime Prevention Act: Fiscal Year 2009-2010 Report](#), RAND TR-988.
- N.M. Pace, G. Ridgeway, J.M. Anderson, C. Fan, M. Horta (2011). [Case Weights for Federal Defender Organizations](#), RAND TR-1007-AOUSC.
- T. Fain, S. Turner, and G. Ridgeway (2011). [Los Angeles County Juvenile Justice Crime Prevention Act: Fiscal Year 2008-2009 Report](#), RAND TR-832.
- G. Ridgeway, L.W. Castaneda, A.B. Cross, E. Wilke, and J. Saunders (2010). “The Experience of Domestic Agencies: Police, Fire, and Federal Agencies,” in [Sexual Orientation and U.S. Military Personnel Policy](#), RAND MG-1056-OSD. Volume received 2011 Policy Impact Award from the American Association for Public Opinion Research.
- L.W. Castaneda and G. Ridgeway (2010). [Today’s Police and Sheriff Recruits: Insights from the Newest Members of America’s Law Enforcement Community](#), RAND MG-992-DOJ.
- T. Fain, S. Turner, and G. Ridgeway (2010). [Los Angeles County Juvenile Justice Crime Prevention Act: Fiscal Year 2007-2008 Report](#), RAND TR-746.
- G. Ridgeway (2009). [Cincinnati Police Department’s Traffic Stops: Applying RAND’s Framework to Analyze Racial Disparities](#), RAND MG-914-CC.
- N. Lim, C. Matthies, G. Ridgeway, B. Gifford (2009). [To Protect and to Serve: Enhancing the Efficiency of LAPD Recruiting](#), RAND MG-881-RMPF. (Nominated by LAPD and received honorable mention from IACP’s Excellence in Law Enforcement Research Award.)

- G.F. Treverton, C. Matthies, K.J. Cunningham, J. Goulka, G. Ridgeway, A. Wong (2009). *Film Piracy, Organized Crime, and Terrorism*, RAND MG-742-MPA.
- G. Ridgeway, T.L. Schell, B. Gifford, J. Saunders, S. Turner, K.J. Riley, T.L. Dixon (2009). *Police-Community Relations in Cincinnati*, RAND MG-853-CC.
- G. Ridgeway, N. Lim, B. Gifford, C. Koper, C. Matthies, S. Hajiamiri, A. Huynh (2008). *Strategies for Improving Officer Recruitment in the San Diego Police Department*, RAND MG-724-SDPD.
- B.D. Rostker, L.M. Hanser, W.M. Hix, C. Jensen, A.R. Morral, G. Ridgeway, T.L. Schell (2008). *Evaluation of the New York City Police Department Firearm Training and Firearm-Discharge Review Process*, RAND MG-717-NYPD.
- G. Ridgeway, G.L. Pierce, A.A. Braga, G. Tita, G. Wintemute, W. Roberts (2008). *Strategies for Disrupting Illegal Firearm Markets: A Case Study of Los Angeles*, RAND TR-512-NIJ.
- G. Ridgeway (2007). *Analysis of Racial Disparities in the New York Police Department's Stop, Question, and Frisk Practices*, RAND TR-534-NYCPF.
- T.L. Schell, G. Ridgeway, T.L. Dixon, S. Turner, K.J. Riley (2007). *Police-Community Relations in Cincinnati: Year Three Evaluation Report*, RAND TR-535-CC.
- G. Ridgeway, T. Schell, K.J. Riley, S. Turner, T.L. Dixon (2006). *Police-Community Relations in Cincinnati: Year Two Evaluation Report*, RAND TR-445-CC.
- A.R. Morral, D.F. McCaffrey, G. Ridgeway, A. Mukherji, C. Beighley (2006). *The Relative Effectiveness of 10 Adolescent Substance Abuse Treatment Programs in the United States*, TR-346.
- K. Jack Riley, S. Turner, J. MacDonald, G. Ridgeway, T. Schell, J. Wilson, T.L. Dixon, T. Fain, D. Barnes-Proby, and B. Fulton (2005). *Police-Community Relations in Cincinnati*, RAND TR-333.
- K.J. Riley, N. Rodriguez, G. Ridgeway, D. Barnes-Proby, N. Griffith Forge, V. Webb (2005). *Just Cause or Just Because? Prosecution and Plea-Bargaining Resulting in Prison Sentences on Low-Level Drug Charges in California and Arizona*, RAND MG-288-RWJ.
- D.A. Relles, G. Ridgeway, G.M. Carter, M. Beeuwkes Buntin (2005). *Possible Refinements to the Construction of Function-Related Groups for the Inpatient Rehabilitation Facility Prospective Payment System*, TR-207-CMS.
- L.M. Davis, K.J. Riley, G. Ridgeway, J.E. Pace, S. Cotton-Nelson, P. Steinberg, K. Damphousse, and B.L. Smith (2004). *When Terrorism Hits Home: How Prepared Are State and Local Law Enforcement?*, RAND MG-104-MIPT. [Download research brief \(pdf\)](#)
- G. Ridgeway, K.J. Riley, J. Grogger (2004). *Analysis of Oakland's stop and search data*, Chapter 9 in *Promoting Cooperative Strategies to Reduce Racial Profiling*, Oakland Police Department.
- G. Tita, K.J. Riley, G. Ridgeway, C. Grammich, A.F. Abrahamse, and P. Greenwood (2003). *Reducing Gun Violence in East Los Angeles: Results from an Intervention*, RAND MR-1764-NIJ. (Listed in the 2004 guide of University Press Books Selected for Public and Secondary School Libraries.)
- L.J. Hickman, T. Fain, S. Turner, G.K. Ridgeway, B. Raymond, and J.R. Lockwood (2003). *Evaluation of the Impact of Seattle's DWLS Impound Law*, WR-117-SEA.

G.M. Carter, M. Beeuwkes Buntin, O. Hayden, S.M. Paddock, D.A. Relles, G.K. Ridgeway, M.E. Totten, B.O. Wynn (2002). *Analyses for the Initial Implementation of the Inpatient Rehabilitation Facility Prospective Payment System*. MR-1500.

Book chapters

G. Ridgeway and J.M. MacDonald (2010). *Methods for Assessing Racially Biased Policing* in *Race, Ethnicity and Policing: New and Essential Readings* (S.K. Rice & M.D. White, eds.), New York University Press.

G. Ridgeway (2003). *Strategies and Methods for Prediction* in *The Handbook of Data Mining* (N. Ye, ed.), Lawrence Erlbaum Associates, Mahwah, NJ.

D. Madigan and G. Ridgeway (2003). *Bayesian Learning and Inference* in *The Handbook of Data Mining*(<https://www.routledge.com/The-Handbook-of-Data-Mining/Ye/p/book/9780805849073>) (N. Ye, ed.), Lawrence Erlbaum Associates, Mahwah, NJ.

A. Morral, M. Reti, D. McCaffrey, G. Ridgeway (2001). *Phoenix Academy treatment outcomes: Preliminary findings from the adolescent outcomes study*. NIDA Research Monograph 182:111-112.

D. Madigan, N. Raghavan, W. DuMouchel, M. Nason, C. Posse, and G. Ridgeway (2001). *Likelihood-based Data Squashing: A Modeling Approach to Instance Construction* in *Instance Selection and Construction for Data Mining* (H. Liu & H. Motoda, eds.), Kluwer Academic Publishers.

Commentaries and letters

G. Ridgeway (2020). “[Transparency, Statistics, and Justice System Knowledge Is Essential for Science of Risk Assessment](#),” *Harvard Data Science Review* 2(1).

G. Ridgeway (2013). “[Linking Prediction and Prevention](#),” Policy Essay, *Criminology & Public Policy* 12(3):545-550.

G. Ridgeway and P. Heaton (2011). “[Save Money - Hire Police](#),” Commentary, *Los Angeles Times*, November 22, 2011.

G. Ridgeway and N. Lim (2009). “[The Decline of Racial Profiling](#),” Commentary on cnn.com, July 30, 2009.

G. Ridgeway (2009). “[Summary of the RAND Report on NYPD’s Stop, Question, and Frisk](#),” Testimony presented before the New York City Council Committee on Public Safety and Committee on Civil Rights on April 30, 2009, CT-329.

G. Ridgeway (2008). “[Study Focuses on NYPD Racial Profiling](#).” NPR News & Notes, 8 May 2008.

K.J. Riley and G. Ridgeway (2007). “[Police Need to Do a Better Job of Explaining Stop-and-Frisk](#),” Commentary, *New York Daily News*, December 6, 2007.

G. Ridgeway (2007). “[Laws Are No Substitute to Vigilance](#),” Special to washingtonpost.com’s Think Tank Town, April 18, 2007.

K.J. Riley and G. Ridgeway (2005). “[Racial Profiling Won’t Stop Terror](#),” Special to washington-post.com’s Think Tank Town, October 11, 2006.

G. Ridgeway (2005). “[Racial Profiling: Still a Worry](#),” Letter to the Editor, *Washington Post*, September 6, 2005, Page A24.

G. Ridgeway (2004). “[Commentary: Racial Profiling, Not Always Black and White](#),” *RAND Review* 28(2):46.

K.J. Riley and G. Ridgeway (2004). “[Measuring racial profiling by police](#),” *Law Enforcement News*.

G. Ridgeway and K.J. Riley (2004). “[Police-search statistics don’t lie, but statisticians can](#),” Op-ed, *Dallas Morning News*, February 22, 2004.

Reports, discussions, and conference papers

G. Ridgeway (2023). [Data Analysis of Priests and Brothers Substantiated as Child Sex Abusers Associated with the Illinois Dioceses](#), Report on Catholic Clergy Child Sex Abuse in Illinois, Office of the Attorney General, State of Illinois. pp. 605-633.

A. Chalfin, J.M. MacDonald, G. Ridgeway, R. Ryley (2022). [Crime Prevention Through Intelligence and Information Sharing: An Evaluation of an Information Intervention at the Philadelphia Police Department](#), Penn Crime and Justice Policy Lab Report.

N. Lim and G. Ridgeway (2015). [Progress After Ferguson? Good Ideas Need Good Implementation](#), Commentary on RAND.org.

G. Ridgeway (2013). [The Pitfalls of Prediction](#), *NIJ Journal* 271:34-40.

G. Ridgeway and D.F. McCaffrey (2007). [Comment on ‘Demystifying Double Robustness: A Comparison of Alternative Strategies for Estimating a Population Mean from Incomplete Data’ by Kang and Schafer](#), *Statistical Science* 22(4):540-543.

G. Ridgeway (2007). [Review of All of Nonparametric Statistics by Larry Wasserman](#), *Journal of the American Statistical Association* 102(477):389-389.

G. Ridgeway (April 15, 2006). [Generalized Boosted Models: A guide to the gbm package](#), R vignette.

G. Ridgeway, D.F. McCaffrey, A.R. Morral (June 26, 2006). [Toolkit for Weighting and Analysis of Nonequivalent Groups: A tutorial for the twang package](#), R vignette.

G. Tita, K.J. Riley, G. Ridgeway, and P.W. Greenwood (2005). [Reducing Gun Violence: Operation Ceasefire in Los Angeles](#), NIJ Research Report NCJ 192378.

D. Madigan and G. Ridgeway (2004). [Discussion of “Least Angle Regression”](#), *Annals of Statistics* 32(2):465-469.

D. Rusk, K. Lin, D. Swartz, and G. Ridgeway (2001). [“Bayesian Updating of Damage Size Probabilities for Aircraft Structural Life-Cycle Management”](#), *Proceedings of the 42nd Structures, Structural Dynamics, and Materials Conference, Non-Deterministic Approaches Forum*.

- G. Ridgeway (2000). *Discussion of “Additive Logistic Regression: a Statistical View of Boosting,” by J. Friedman, T. Hastie, and R. Tibshirani*, *Annals of Statistics* 28(2):393-400.
- G. Ridgeway (2000). *Looking for Lumps: Boosting and bagging for density estimation*, In *Proceedings of the International Meeting on Nonlinear Methods and Data Mining* (S. Borra & A. Di Ciaccio, eds.), pp. 11-25.
- G. Ridgeway (2000). *Prediction in the Era of Massive Datasets*, *Proceedings of Statistical Modelling for Data Mining* (P. Giudici, ed.), pp. 109-119.
- G. Ridgeway (1999). *The state of boosting*, *Computing Science and Statistics* 31:172-181.
- G. Ridgeway (1999). *Generalization of Boosting Algorithms and Applications of Bayesian Inference for Massive Datasets*, Ph.D. dissertation, Dept. of Statistics, Univ. of Washington.
- G. Ridgeway, D. Madigan, and T. Richardson (1999). *Boosting Methodology for Regression Problems*, *Proceedings of Artificial Intelligence and Statistics '99* (D. Heckerman & J. Whittaker, eds.), pp. 152-161.
- G. Ridgeway, T. Richardson, and D. Madigan (1999). *Discussion of “Bump Hunting in High-Dimensional Data”*, *Statistics and Computing* 9(2):150-152.
- J.W. O’Kane, G. Ridgeway, and D. Madigan (1999). *Statistical Analysis of Clinical Variables to Predict the Outcome of Surgical Intervention in Patients with Knee Complaints*, Technical report.
- G. Ridgeway and S. Altschuler (1998). *Clustering Finite Discrete Markov Chains*, *Proceedings of the Section on Physical and Engineering Sciences*, pp. 228-229.
- G. Ridgeway (1997). *Finite discrete Markov process clustering*, Technical report MSR-TR-97-24, Microsoft Research, September 1997.
- G. Ridgeway (1996). *Distributed Open Resources for Understanding Statistics – DORUS*, September 1996.

Software development

- **Conditional ordinal stereotype model for police use-of-force**
A conditional likelihood version of Anderson’s ordinal stereotype model, designed to estimate an individual officer’s propensity to escalate force (C++/R)
Development: <https://github.com/gregridgeway/COS-police-use-of-force>
- **fastDR – Fast Doubly Robust Estimation**
Implements doubly robust treatment effect estimation using boosted propensity scores and weighted GLMs
Development: <https://github.com/gregridgeway/fastDR>
- **gbm3 – Generalized Boosted Regression Models**
Latest version of gradient boosting and related models (C++ engine, R frontend)
Development: <https://github.com/gbm-developers/gbm3>
- **gbm – Generalized Boosted Regression Models**
Original version of gradient boosted models (C++ engine, R frontend)
Development: <https://github.com/gbm-developers/gbm>

Presentations

2025

- “Fairness Regularized Risk Assessment Models: Balancing Risk Prediction and Racial and Ethnic Equality,” November, Washington DC, American Society of Criminology. (with Rhys Hester and Ryan Labrecque).
- “Landscape of Criminal Justice Data Sources,” March, American Statistical Association, Committee on Law and Justice Statistics public webinar. [video](#) (password: M7P=o\$Df)

2024

- “Which police officers escalate force?” September, University of Tennessee - Memphis, Bio-statistics seminar series.
- “Which police officers have a high propensity to escalate force?,” September, [Warren Center & ASSET Center Research Mixer](#), University of Pennsylvania, Philadelphia, PA.

2023

- “Conditional Likelihood for Use-of-Force,” November, [Ingram Olkin Forum: Statistical Challenges in the Analysis of Police Use of Force](#), Carleton College, Northfield, MN.
- “Scorecards, Benchmarking, and the Search for Unusual Hospitals, Communities, and Cops,” July, Center for Statistical Research and Methodology, United States Bureau of the Census.
- “Conditional likelihood and use-of-force,” March, University of Massachusetts, Lowell.
- “Scorecards, Benchmarking, and the Search for Unusual Hospitals, Communities, and Cops,” February, [Penn Association of Senior and Emeritus Faculty \(PASEF\)](#).

2021

- “Officer Features and Shooting Risk,” March, ENAR, virtual.
- “Modern Benchmarking and the Search for Unusual Hospitals, Communities, and Cops,” March, Council of State Governments.
- “Exploring a RAND Approach to Measuring Racial Disparity: A Case Example and Dialogue,” January, Center to Advance Racial Equity Policy, RAND Corporation.

2020

- “Officer Features and Shooting Risk,” November, [APPAM Fall Research Conference](#), virtual.
- “Modern Benchmarking and the Search for Unusual Hospitals, Communities, and Cops,” [Keynote, Health Policy Statistics Section](#), August, Joint Statistical Meetings, virtual.
- “Officer Features and Shooting Risk,” August, Joint Statistical Meetings, virtual.

2019

- “Officer Features and Shooting Risk,” June, [Inaugural Ingram Olkin S3 Forum: Gun Violence - The Statistical Issues](#), American Statistical Association, Alexandria, VA. [video](#)
- “Statistics of Police Shootings and Racial Profiling,” April, [Center for Practice and Research at the Intersection of Information, Society, and Methodology](#), New York University, New York, NY.
- “Racial Profiling, Bad Cops, and Police Shootings,” March, Department of Statistics, Iowa State University, Ames, IA.
- “Racial Profiling, Bad Cops, and Police Shootings,” February, Natural Sciences Colloquium, Colgate University, Hamilton, NY.
- “Officer Features and Shooting Risk,” February, AAPSS Workshop on Police Shootings, University of Pennsylvania, Philadelphia, PA.

2018

- “What to Do About Geographic Interventions?,” November, Center for Causal Inference, University of Pennsylvania, Philadelphia, PA.
- “Criminological Data Science,” September, Fields Institute, University of Toronto, Toronto, Canada.

2017

- “Racial Profiling, Bad Cops, and Police Shootings,” November, [Social and Decision Analytics Lab](#), Virginia Tech, Arlington, VA.
- “Criminal Justice Predictions,” September, National Academy of Sciences, Workshop on Predictive Analytics for Human Services and Education, Washington, DC.
- “Computation and Criminology,” September, Current Challenges in Computing: Computational Social Science (CCubed), Napa, CA.
- “Officer Risk Factors Associated with Police Shootings: A Matched Case-Control Study,” February, American Association for the Advancement of Science (AAAS), Boston, MA.
- “Propensity score analysis with survey weighted data,” March, Eastern North American Region of the Biometric Society (ENAR), Washington, DC.

- “[Statistical Applications in Crime and Justice](#),” March, Southern California chapter of the American Statistical Association (SCASA) Annual Applied Statistics Workshop, Duarte, CA. [Complete slides, scripts, and datasets](#)

2016

- “[Racial Profiling, Bad Cops, and Police Shootings](#),” March, Department of Statistics Colloquium, University of Pennsylvania, Philadelphia, PA.
- “[Effect of Rail Transit on Crime: A Study of Los Angeles from 1988-2014](#),” January, Population Studies Center Colloquium, Philadelphia, PA.

2015

- “[Criminal justice system benchmarking: An approach for studying sentencing disparities in New York State](#),” October, New York Sentencing Commission, New York, NY.
- “[Transit systems and their effect on crime in communities: Three decades of crime and transit in Los Angeles](#),” November, Association for Public Policy Analysis and Management, Miami, FL.
- “[Benchmarking Justice Performance](#),” June, Research Coordination Network on Understanding Guilty Pleas, Albany, NY.
- “[Discussion of Plea Bargaining in Wisconsin](#),” June, Research Coordination Network on Understanding Guilty Pleas, Albany, NY.
- “[Advancing forensic science at the National Institute of Justice](#),” April, Committee on Strengthening Forensic Science at the National Institute of Justice, National Academy of Sciences, Washington, DC.

2014

- “[Estimating officer risk factors for police shootings](#),” December, Department of Criminology, University of Pennsylvania, Philadelphia.

2012

- “[Methods for racial profiling analysis](#),” March, Claremont Colleges, Claremont.

2011

- “[Analysis in Support of Public Safety](#),” September, Contemporary Challenges for Strategic Planning of Public Safety, Ministerio de Seguridad, Buenos Aires, Argentina.
- “[Racial Profiling Analysis in a Post-Beer Summit World](#),” March, Google Tech Talks, Santa Monica. ([video](#))

2010

- “What research can do for policing,” September, International Association of Law Enforcement Planners, Scottsdale.
- “Police Performance and the Analysis of Racial Profiling,” September, International Association of Law Enforcement Planners, Scottsdale.
- “What research can do for policing,” April, Southern California Chiefs of Police Association, Palm Springs.

2009

- “Methods for racial profiling analysis,” October, University of Pennsylvania, Philadelphia, Department of Criminology.
- “Operación cese al fuego, Los Ángeles,” Crimen organizado, pandillas y tráfico de armas, triángulo de inseguridad, September, CEDAN - Centro de Diálogo y Análisis Sobre América del Norte, Tecnológico de Monterrey, Campus Ciudad de México.

2008

- “Methods for racial profiling analysis,” October, University of California, Santa Barbara, Department of Probability and Statistics.
- “A Discussion of Disease Prediction and Model Validation,” Discussion for an invited session at the Joint Statistical Meetings, August, Denver.
- “Racial Disparities in the New York Police Department’s Stop, Question, Frisk Practices,” February, The 2nd Fyfe Police Accountability Conference: Stop and Frisk Policy, Practice and Research, John Jay College, New York.

2007

- “The criminal purchase of firearm ammunition,” March, Association for Criminal Justice Research, Sacramento.
- “Methods for racial profiling analysis,” February, University of Cincinnati.
- “Improving Community-Police Relations: Year 2 Results,” January, Testimony to the Public Safety Subcommittee of the Cincinnati City Council.

2006

- “Internal benchmarking using propensity scores for detecting racial bias in police traffic stops,” November, American Society of Criminology, Los Angeles.
- “Internal benchmarking using propensity scores for detecting racial bias in police traffic stops,” September, Junior Empirical Legal Scholars Conference, Cornell Law School.
- “Racial profiling,” February, UCLA Biostatistics Seminar Series.

2005

- “Assessing the effect of race bias in post-traffic stop outcomes using propensity scores,” November, [American Society of Criminology](#), Toronto, Canada.
- “Ammunition Purchases in the City of Los Angeles,” November, [American Society of Criminology](#), Toronto, Canada.
- “Model Selection for Estimating Propensity Scores,” June, WNAR Conference, Fairbanks, AK.
- “Analysis of Post-Stop Outcomes: Citations, Search, and Stop Duration,” April, Fourth National Symposium on Racial Profiling, Rosemont, IL.
- “Strategies for the analysis of observational data,” January, UCLA Division of Geriatrics, Los Angeles, CA.

2004

- “Just Cause or Just Because? Prosecution and Plea Bargaining among Low-Level Drug Offenders in California,” November, American Society of Criminology, Nashville, TN.
- “Not Always Black and White: More Credible Approaches for Detecting Racial Profiling,” November, RAND Board of Trustees Meeting, Santa Monica, CA.
- “Racial Profiling: Not Always Black and White,” October, Statistics and Computer Science Seminar Series, University of California, Irvine, CA.
- “Racial Profiling: Not Always Black and White,” September, One RAND Colloquium, Washington, DC.
- “Racial Profiling: Not Always Black and White,” September, Biostatistics Seminar Series, Johns-Hopkins University, Baltimore, MD.
- “Racial Profiling: Not Always Black and White,” September, RAND Civil Justice Board of Overseers Meeting, Washington, DC.
- “Post-processing boosted regression models: model and variable selection,” Invited session at the [Joint Statistical Meetings](#), August, Toronto, Canada.
- “Enhancing Evidence: Causal Modeling Using Observational Treatment Data,” with Dan McCaffrey and Andrew Morral. Research Methodology Workshop at [Complexities of Co-Occurring Conditions](#), June, Washington, DC.
- “Racial Profiling: Not Always Black and White,” June, Congressional briefing, Washington, DC.
- “Estimating the causal effect of time in treatment using propensity scores,” with Dan McCaffrey and Andrew Morral. Poster presentation at the 2004 meeting of the College on Problems of Drug Dependence, June, San Juan, Puerto Rico.
- “Racial Profiling: Not Always Black and White,” May, One RAND Colloquium, Santa Monica, CA.
- “Statistics, Machine Learning, and Public Policy Analysis - Propensity score analysis of observational data,” April, Stern Business School, New York University, New York.
- “Retooling propensity score techniques with machine learning for evaluating solutions to the Los Angeles drug abuse epidemic,” March, [DIMACS Working Group on Data Mining and Epidemiology](#), Rutgers University, Piscataway, NJ.

2003

- “A Bayesian assessment of the impact of a gun violence reduction initiative in Hollenbeck,” September, [The 7th Case Studies in Bayesian Statistics Workshop](#), Carnegie Mellon University, Pittsburgh, PA. Poster.
- “Propensity scores and causal analysis of observational data,” May, Division of General Internal Medicine & Health Services Research Seminar Series, UCLA, Los Angeles, CA.

2002

- “Bayesian analysis of massive datasets via particle filters,” November, Department of Statistics, UCLA, Los Angeles, CA.
- “Generalized boosted modeling with application to propensity scores,” October, Department of Statistics and Actuarial Science, University of Central Florida, Orlando, FL.
- “Bayesian analysis of massive datasets via particle filters,” October, Department of Statistics, Florida State University, Tallahassee, FL.
- “Bayesian analysis of massive datasets via particle filters,” July, The Eighth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining ([KDD2002](#)), Edmonton, Canada.
- “Statistical Techniques for the Implementation of a Prospective Payment System for Inpatient Rehabilitation,” June, Academy for Health Services Research and Health Policy Annual Research Meeting, Washington, DC. Invited paper for the session on Medicare Reimbursement for Post Acute & Long Term Care: Research Informing Policy.
- “Data Mining for the Development of Public Policy,” April, 34th Symposium on the Interface of Computing and Statistics (Interface 2002), Montreal, Canada. Invited paper for the KDD Featured Session on Data Mining.
- “Predicting Dropouts: Boosting Algorithms and the Identification of Academically At-Risk Youth,” (with [Paul LePore](#)) February, University of Washington, Center for Statistics and the Social Sciences ([CSSS](#)), Seattle, Washington. CSSS Seminar Series.

2001

- “Data mining and the Implementation of a Prospective Payment System for Inpatient Rehabilitation,” December, 2001 International Conference on Health Policy Research, Boston. Invited paper for the session on Data Mining for Health Services Research.
- “Strategies for Boosting and Prediction,” October, [Department of Statistics](#), California Polytechnic State University, San Luis Obispo.
- “Strategies for Boosting and Prediction,” May, [Department of Statistics](#), University of California Riverside.
- “Hypothesis Screening for Serologic Characteristics Associated with Prednisone Using SurroMed Technology,” April, [SurroMed](#), Mountain View, CA.

2000

- “Strategies for Boosting and Prediction,” December, Information and Computer Sciences, University of California Irvine.
- “Strategies for Boosting and Prediction,” Statistics and Applied Probability Seminar, November, University of California Santa Barbara.
- “[Prediction in the Era of Massive Datasets](#),” Workshop on Statistics and Data Mining (SDM2000), October, Pavia, Italy. Invited tutorial presentation.
- “[Looking for Lumps: Boosting and Bagging for density estimation](#),” International Meeting on Nonlinear Methods and Data Mining (NMDM 2000), Rome, Italy, September. Invited presentation.
- “Data mining,” RAND short course series, Santa Monica, CA, September.
- “[Modern prediction methods using Bagging and Boosting](#),” [Center for Statistics and the Social Sciences](#), February, Seattle, Washington. CSSS Seminar Series.

1999

- “Combining Estimators to Improve Performance: Bundling, Bagging, Boosting, and Bayesian Model Averaging,” (with John Elder) Fifth International Conference on Knowledge Discovery and Data Mining ([KDD-99](#)), August, San Diego, California. Tutorial presentation.
- “[The state of boosting](#),” 31st Symposium on the Interface: Models, Predictions, and Computing (Interface 1999), June, Schaumburg, Illinois. Invited talk for the session on Data Mining.
- “[A Method for Bayesian Inference in Massive Datasets](#),” [Boeing](#), March, Bellevue, Washington. Invited seminar presentation.
- “[Boosting Methodology for Regression Problems](#),” Seventh International Workshop on Artificial Intelligence and Statistics ([Uncertainty 1999](#)), January, Fort Lauderdale, Florida.

1998

- “[Interpretable Boosted Naïve Bayes Classification](#),” Fourth International Conference on Knowledge Discovery and Data Mining ([KDD-98](#)), August, New York, New York. Plenary presentation on classification research.
- “[Boosting and the naïve Bayes classifier](#),” [Microsoft Research](#), July, Redmond, Washington.
- “[Application of finite discrete Markov process clustering for understanding Web usage](#),” Spring Research Conference on Statistics in Industry and Technology ([SRC98](#)), Section on Physical and Engineering Sciences, June, Santa Fe, New Mexico.

Professional activities

2021-2025 – Editor-in-chief, [Journal of Quantitative Criminology](#) (with John MacDonald)

2025-2028 – Committee member, [ASA Committee on Law and Justice Statistics](#)

2023-2024 – Chair, ASA [Committee on Law and Justice Statistics](#)
2021-2024 – Committee member, [Policy Committee](#), American Society of Criminology
2018-2020 – Associate Editor, *[Journal of Quantitative Criminology](#)*
2016-2018 – Editorial board, *[Journal of Quantitative Criminology](#)*
2019-2020 – Committee member, [Nominations Committee](#), American Society of Criminology
2009-2010 – Committee member, [ASA Committee on Law and Justice Statistics](#)
2004-2008 – Associate Editor, *[Bayesian Analysis](#)*
2004-2008 – Action Editor, *[Journal of Machine Learning Research](#)*
2000-2007 – Associate Editor, *[Journal of Computational and Graphical Statistics](#)*

2025

External review committee, [Center for Criminal and Sociolegal Studies](#), University of Toronto
Program committee, ACM Conference on Fairness, Accountability, and Transparency ([ACM FAccT](#)), June, Athens, Greece

2023

Social Sciences Area Chair, ACM Conference on Fairness, Accountability, and Transparency ([ACM FAccT](#)), June, Chicago
Analyst, Report on Catholic Clergy Child Sex Abuse in Illinois, Office of the Illinois Attorney General ([report](#))
Analyst, Bailey v. City of Philadelphia, Case 2:10-CV-05952-SD (2023-present)

2020

Program committee, ACM-IMS Foundations of Data Science ([FODS-2020](#)), October, Seattle, WA
Analyst, Chicago PD Consent Decree, Investigation of the Chicago Police Department, Office of the Illinois Attorney General, Case 1:17-CV-06260 (2020-2023)
Analyst, Investigation of the Minneapolis PD, Minnesota Department of Human Rights, Case 27-CV-23-4177 (2020-2022)

2019

Organizer, [Inaugural Ingram Olkin S3 Forum: Gun Violence - The Statistical Issues](#)
Member, External review panel for the [Center for Statistics and Applications in Forensic Evidence](#), National Institute of Standards and Technology
Member, Research Advisory Board, Police Executive Research Forum

2017

Analyst, Baltimore PD Consent Decree, US Department of Justice, Civil Rights Division, Case 1:17-CV-00099-JKB (2017-present)

Analyst, Investigation of the Chicago Police Department, Office of the Illinois Attorney General, Case 1:17-CV-06260 (2017-2019)

2016

Analyst, Investigation of the Chicago Police Department, US Department of Justice, Civil Rights Division (2016-2017)

Analyst, Maricopa County Sheriff Consent Decree, US Department of Justice, Civil Rights Division, Case 2:07-CV-02513-GMS (2016-present)

2011

California Attorney General's Guns, Gangs, and Organized Crime Working Group

2007

California Department of Justice, Firearms Division Committee on the AFS Redesign

2006

Program committee, 12th International Conference on Knowledge Discovery and Data Mining (KDD-2006), August, Philadelphia.

Vice-chair, 2006 SIAM International Conference on Data Mining (SDM-2006), April. Bethesda, MD.

2005

Program committee, The 22nd International Conference on Machine Learning (ICML-2005), August. Bonn, Germany.

Program committee, 11th International Conference on Knowledge Discovery and Data Mining (KDD-2005), August, Chicago.

Program committee, 2005 SIAM International Conference on Data Mining (SDM-2005), April. Newport Beach, CA.

2004

Program committee, Tenth International Conference on Knowledge Discovery and Data Mining (KDD-2004), August, Seattle.

Program committee, Fourth SIAM International Conference on Data Mining (SDM-2004), April, Kissimmee, FL.

2003

Program committee, 2003 IEEE International Conference on Data Mining (ICDM-2003), November, Melbourne, Florida.

Chair, Analysis panel for the Centers for Disease Control and Prevention on the analysis plan for the Anthrax Vaccine Research Program, October, Atlanta, GA.

Program committee, Ninth International Conference on Knowledge Discovery and Data Mining (KDD-2003), August, Washington DC.

Program committee, Third SIAM International Conference on Data Mining (SDM-2003), May, San Francisco, CA.

2002

Participant, Workshop on the statistical analysis of massive data streams, National Academies of Sciences, Committee on Applied & Theoretical Statistics, December.

Program committee, The 2002 IEEE International Conference on Data Mining (ICDM02), December, Maebashi City, Japan.

Program committee, Eighth International Conference on Knowledge Discovery and Data Mining (KDD-2002), July, Edmonton, Alberta, Canada.

Program committee, Second SIAM International Conference on Data Mining (SDM-2002), April, Arlington, VA.

2001

Panelist, Anthrax Vaccine Research Program, Centers for Disease Control and Prevention (CDC), September, Atlanta, GA.

Program committee, Seventh International Conference on Knowledge Discovery and Data Mining (KDD-2001), August, San Francisco, CA.

Program committee, The Eighteenth International Conference on Machine Learning (ICML-2001), June. Williamstown, Massachusetts.

Organizing and session chair, Session on massive datasets, Interface 2001, June, Costa Mesa, CA.

Member of the Advisory Board for the [Handbook of Data Mining](#)

Panelist, National Science Foundation initiative on Information Technology Research (NSF ITR).

Program committee, Eighth Workshop on Artificial Intelligence and Statistics, January, Key West, FL.

2000

Program committee, Sixth International Conference on Knowledge Discovery and Data Mining (KDD-2000), August, Boston, MA.

1999

Session chair, Session on mining temporal data, KDD-1999, August, San Diego, CA.

1997

Mathematical Techniques to Mine Massive Data Sets (M3D), August, Chicago, Illinois. Invited participant.

1996

Second International Conference on Knowledge Discovery and Data Mining (KDD-96), August, Portland, Oregon. Conference participant.

Teaching and student advising

Course notes

- **Criminal Justice Data Analytics** (CRIM4002/6002) [R4Crim](#)
- **Machine Learning for Social Science** (CRIM4012/6012) [ML4SocialScience](#)

Ph.D. students

2024 – John Gyourko, *Credit Checks and Credit Freezes for Children and Youth in Foster Care: Tracking, Remediating, and Preventing Identity Fraud Victimization* (committee member)

2023 – Alex Knorre, *Essays on Gun Violence in the United States* (committee member)

2023 – David Mitre Becerril, *The Effects of Neighborhood Investments on Public Safety* (committee member)

2022 – Viet Nguyen, *Understanding the trade-offs for less punitive sentencing practices* (committee member)

2020 – Ruth Moyer, *Changes Within the Urban Environment and Their Effect on Crime and the Criminal Justice System* (committee chair)

2020 – Jacob Kaplan, *The Effect of Lighting and Building Security on Crime* (committee member)

2020 – Yuhao Wu, *Empirical Studies of the Effects of Legal Reforms on the Criminal Justice System in China* (committee member)

2020 – Li Sian Goh, *The Policy Evaluation of Measures to Reduce Police Use of Force* (Ph.D. committee member)

2018 – Rebecca Umbach, *Etiology and Treatment of Neuropsychological and Cognitive Deficits in Relation to Antisocial Behavior* (Ph.D. committee member)

2007 – Brent Fulton, *Incorporating Traffic Enforcement Racial Profiling Analyses into Police Department Early Intervention Systems* (Ph.D. committee member)

2007 – Arnab Mukherji, *Agrarian Households in Semi-Arid Tropics: Evaluating Policy Options* (Ph.D. committee member)

2006 – Ben Vollaard, *Police Effectiveness: Measurement and Incentives* (Ph.D. committee member)

2005 – Matt Dixon, *The Costs of Aging Aircraft: Insights from Commercial Aviation* (Ph.D. committee member)

2004 – Joshua Weed, *Effective Capital Provision Within Government* (Ph.D. committee chair)

Courses

Year	Course	Enrollment	Institution
2025	Machine Learning for Social Science	18	University of Pennsylvania
	Data Analytics in R	32	
2024	Machine Learning for Social Science	29	
	Data Analytics in R	28	
2023	Data Analytics in R	36	
2022	Data Analytics in R	30	
	Criminology in Practice	9	
2021	Data Analytics in R	31	
	Criminology in Practice	13	
2020	Criminal Justice	134	
	Research Methods	13	
	Mathematical Statistics for Criminology	5	
	Data Analytics in R	38	
	Criminology in Practice	15	
2019	Data Analytics in R	32	
	Criminology in Practice	14	
2018	Statistics for Social Science	27	
	Criminal Justice Data Analytics	33	
	Criminology in Practice	17	
2017	Statistics for Social Science	15	
	Criminal Justice Data Analytics	36	
	Criminology in Practice	19	
2016	Statistics for Social Science	18	
	Criminal Justice Data Analytics	23	
	Criminology in Practice	16	
	Research Methods	20	
2015	Criminology in Practice	23	
	Criminal Justice Data Analytics	32	
	Criminal Justice Data Analytics	14	
2014	Criminology in Practice	12	
2011	Applied Statistics	39	

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Year	Course	Enrollment	Institution
2010	Applied Statistics	25	UC Irvine
2009	Empirical Analysis	23	RAND School of Public Policy
	Applied Statistics	21	UC Irvine
2008	Empirical Analysis	21	RAND School of Public Policy
	Applied Statistics	20	UC Irvine
2007	Empirical Analysis	18	RAND School of Public Policy
	Applied Statistics	21	UC Irvine
2006	Modern Prediction and Modeling Methods	19	RAND School of Public Policy
	Empirical Analysis	20	
	Applied Statistics	24	UC Irvine
2005	Applied Statistics	21	
2004	Calculus	15	RAND School of Public Policy
	Modern Prediction and Modeling Methods	12	
2003	Mathematics for Policy Analysis	15	
2002	Modern Prediction and Modeling Methods	6	
2000	Basic Statistics	150	University of Washington
	Statistical Computing	10	
1999	Basic Statistics	150	
	Introduction to Mathematical Statistics	45	
1998	Probability and Statistics in Engineering and Science	74	