CURRICULUM VITAE

JAMES H. ALBERT
June 2020

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Contact Information

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Academic Degrees

Ph.D., Statistics, Purdue University, August 1979
M.S., Mathematical Statistics, Purdue University, December 1977
B.S., Mathematics, Bucknell University, June 1975

Academic Positions

2020-present   Emeritus Professor, Bowling Green State University
2018-2020   Professor, Bowling Green State University
1994-1995   Visiting Professor, Institute of Statistics and Decision Sciences, Duke University
1990-2018   Professor of Mathematics and Statistics, Bowling Green State University
1985-1990   Associate Professor of Mathematics and Statistics, Bowling Green State University
1986-1987   Visiting Fellow, Faculty of Mathematical Studies, University of Southampton
1979-1985   Assistant Professor of Mathematics and Statistics, Bowling Green State University
1975-1979   Teaching Assistant, Purdue University

Honors and Awards

Distinguished University Professor, Bowling Green State University, February 2018

Founders Award from the American Statistical Association, August 2015

Fellow of the American Statistical Association, August 2000

Significant Contributor to Statistics in Sports 2004, an award given by the Section of Statistics in Sports of the American Statistical Association

The Sporting News-SABR Baseball Research Award in 2001 for Curve Ball: Baseball, Statistics and the Role of Chance in the Game

Research Interests

Bayesian Analysis, Statistical Decision Theory, Statistical Computing and Graphics, Contingency Tables, Mathematical Statistics, Exploratory Data Analysis, Teaching of Statistics, Analysis of Sports Data.

Computer Experience

I have programmed extensively using the languages FORTRAN, PASCAL, BASIC, C, APL, and MATLAB. In addition, I am familiar with the statistical packages S, SAS, SPSS-X, BMDP, GAUSS, GLIM, MINITAB, and R.

Statistical software written:

1. JSTAT - a Macintosh statistics package for an elementary statistics class. This package emphasis basic exploratory data analysis techniques, probability simulation, sampling distributions and basic statistical inference.

2. bayes35 - a Bayesian computing package for the Macintosh. This program implements an adaptive quadrature approach for the summarization of 1, 2 and 3 parameter posterior distributions. It can compute various posterior moments and plots one and two dimensional marginal posterior distributions.

3. Bayes/Minitab - a collection of Minitab macros designed for teaching Bayesian concepts at an elementary level. The macros perform basic inference for means and proportions using discrete and continuous models. In addition, the macros can be used to summarize arbitrary one or two parameter posterior distributions.

4. Ordinal Regression Toolbox (with Val Johnson) - a collection of MATLAB functions for fitting and checking a variety of binomial and ordinal regression models

5. LearnBayes – a R package to implement Bayesian calculations.

6. LearnEDA – a R package to accompany MATH 4470/5470 Exploratory Data Analysis

7. BayesTestStreak – a R package to accompany "Looking at Spacings to Access Streakiness", published in *Journal of Quantitative Analysis of Sports*, 2013.

8. TeachBayes – a R package to assist in the teaching of the "Beginning Bayes" course for datacamp.com.

9. BApredict – a R package to accompany Improved Component Predictions of Batting and Pitching Measures, *Journal of Quantitative Analysis of Sports,* 2016.

10. ProbBayes - a R package to accompany the text *Probability and Bayesian Modeling*

Research or Professional Consultantships

Summer 1980 - Summer 1983 Assistant Director, Statistical Consulting Center, Bowling Green State University

Spring 1983 Interim Director, Statistical Consulting Center, Bowling Green State University

1977-1978 Statistical Consultant, Purdue University

Research Projects or Grants

ONLS in Mathematics - Building a PK-5 Foundation for Success, Ohio Department of Education, July 2015 – August 2017.

EXTREEMS-QED: Computational Mathematics and Statistics Program, supported by the National Science Foundation, September 2013 – June 2018.

Beyond Introductory Statistics: Generalized Linear and Multilevel Models (with Brad Hartlaub), a PREP workshop supported by the Mathematical Association of America, Summer 2012.

Teaching Statistics Using Active Learning and Technology (with Brad Hartlaub), a PREP workshop supported by the Mathematical Association of America, Summer 2011.

Teaching Statistical Thinking Through Sports, a PREP workshop supported by the Mathematical Association of America, Summer 2010.

Developing Reasoning about Data and Chance, supported by the Ohio Department of Education, July 2007-June 2009.

One of the participants in a grant awarded to BGSU and University of Toledo in 2003 to develop a set of on-line courses in mathematics and statistics for inservice teachers

Sports Modules for Teaching Introductory Statistics, supported by National Science Foundation, June 2000-June 2002.

A Probability/Activity Approach for Teaching Introductory Statistics, supported by National Science Foundation, June 1998-June 2000.

Funded participant at the AMS Summer Research Conference on Markov Chain Monte Carlo Methods, June 1994.

Funded participant at the International Workshop on Hierarchical Modeling, Rio de Janeiro, Brazil, December 1993.

Funded participant at the 4th Valencia International Meeting on Bayesian Statistics, April 1991. Travel was partially supported by National Science Foundation and local expenses were supported by the Province of Valencia.

Funded participant at the AMS summer research conference on Statistical Multiple Integration, June 1989.

NSF/CBMS Conference in Mathematical Sciences on Hierarchical and Empirical Bayesian Models and Methods, funded by the National Science Foundation, March 1986-February 1987.

Funded participant at the NSF-CBMS regional conference on Multivariate Estimation, January 1985.

Funded participant at the NSF-CBMS regional conference on Nonparametric Priors, June 1985.

Faculty Research Associateships, Bowling Green State University, Summers 1980, 1981, 1984, 1986, 1990.

Faculty Research Committee travel grant to the Second International Meeting on Bayesian Statistics, September 1983.

Faculty Development Committee Speed Grant: "Computer Science and Statistics: 14th Annual Symposium on the Interface", June, 1983.

Faculty Development Committee Speed Grant: "Conference on Teaching of Statistics and Statistical Consulting", September 1982.

Research Assistant, National Science Foundation, Purdue University; 1978-1979.

David Ross Fellowship, Purdue University, 1978-1979

Administrative Experience

1986   NSF/CBMS Conference in Mathematical Sciences on Hierarchical and Empirical Bayesian Models and Methods. As the conference director, I arranged the program, speakers and coordinated all of the housing, transportation and social events.

1987   The 4th Ohio Statistics Conference. Arranged the program and speakers for this one day program, designed to encourage undergraduate students to study statistics.

1989-91 Graduate Coordinator, Department of Mathematics and Statistics, Bowling Green State University. Supervision of a masters and Ph.D. program of 50 students.

1992   The Second Eugene Lukacs Conference on Order Restricted Inference. I helped in the coordination of the program for the 3-day meeting and coordinated all of the housing, transportation and social events.

1997   The Seventh Eugene Lukacs Conference. I helped in the coordination of the program for the 3-day meeting and coordinated all of the housing, transportation and social events.

1997   The 14th Ohio Statistics Conference. Arranged the program and speakers for this one day program, designed to encourage undergraduate students to study statistics.

2000-02 Undergraduate Coordinator, Department of Mathematics and Statistics, Bowling Green State University.

2006   Beyond the AP Statistics Workshop. I organized this meeting for high school teachers in the Northwest Ohio area who were interested in the AP Statistics program.

2010-11 Undergraduate Coordinator, Department of Mathematics and Statistics, Bowling Green State University.

2011-13 Foundational Mathematics Coordinator, Department of Mathematics and Statistics, Bowling Green State University.

2014-2018 Undergraduate Coordinator, Department of Mathematics and Statistics, Bowling Green State University

Editorial/Refereeing Activity

1. Editor of Chance Magazine, 2015-

2. Associate Editor of Journal of Quantitative Analysis of Sports, 2015-

3. Executive Editor of Journal of Quantitative Analysis of Sports, 2011-2014

4. News Editor of Significance Magazine, 2010-2011.

5. Associate Editor of Journal of Statistics Education, 2009-

6. Associate Editor of JASA/TAS Reviews, 2007-2011.

7. Executive Editor of The American Statistician, 2003-2005.

8. Associate Editor of the Journal of the American Statistical Association, 1996-2002.

9. Associate Editor of Communications of Statistics, 1993-1998.

10. Have served as a reviewer for the Annals of Statistics, the Journal of the American Statistical Society, the American Statistician, Applied Statistics, Biometrika, Communciations in Statistics, Statistics and Probability Letters, the Journal of Educational Statistics, Biometrics, Canadian Journal of Statistics, Statistics and Decisions, Journal of Statistical Education, and Psychometrika.   Also, I have reviewed proposals sent to the Probability and Statistics section of the National Science Foundation, and have served on Screening Panels for the Statistics section of NSF.

Publications

Citation Counts

On May 22, 2020, my publications have received a total of 8425 citations and 2423 since 2015. The one paper "Bayesian analysis of binary and polychotomous response data" has received 3377citations (this paper was listed number 13 in the list of most cited statistics papers since 1993 in Ryan and Woodall (2005) Journal of Applied Statistics).

Books

1996   Bayesian Computation Using Minitab, Duxbury Press.

1999   Ordinal Data Modeling (with Val Johnson), Springer-Verlag.

2001   Workshop Statistics, Discovery with Data, A Bayesian Approach (with Allan J Rossman), Key College Press

2001   Curve Ball : Baseball, Statistics, and the Role of Chance in the Game (with Jay Bennett), Copernicus Books. (Revised paperback version published in 2003.) (Japanese translation published in 2004.)

2003   Teaching Statistics Using Baseball, Mathematical Association of America (Revision published in January 2017.)

2005   Anthology of Statistics in Sports, SIAM, (edited volume with Jay Bennett and James Cochran)

2007   Bayesian Inference Using R, Springer. (Revision published in 2009.) (Japanese translation published in 2010.)

2007   Statistical Thinking in Sports, CRC (edited volume with Ruud Koning)

2011   Data Analysis and Probability for Teachers

2011   R by Example (with Maria Rizzo), Springer

2013   Analysis of Baseball Data Using R (with Max Marchi), CRC (Revision with Ben Baumer be published January 2019)

2017   Anthology of Statistics in Sports II, Oxford University Press (edited volume with Jay Bennett and James Cochran)

2017   Handbook of Statistics in Sports, CRC, edited volume with Mark Glickman, Ruud Koning, and Tim Swartz

2017   Visualizing Baseball, CRC in the ASA-CRC Series on Statistical Reasoning in Science and Society

2019   Probability and Bayesian Modeling (with Monika Hu), CRC, published December 2019.

Articles

1. 1981 Simultaneous estimation of Poisson means. Journal of Multivariate Analysis , 11, 400-417.

2. 1981 Pseudo-Bayes estimation of multinomial proportions. Communications in Statistics, A, 10, 1587-1611.

3. 1981 Bayesian estimation in 2x2 contingency tables (with A. K. Gupta). Proceedings of the Social Statistics Section of the American Statistical Association, 1980, 461 466.

4. 1982 Mixtures of Dirichlet distributions and estimation in contingency tables (with A. K. Gupta). Annals of Statistics, 10, 1261-1268.

5. 1983 Estimation in contingency tables using prior information (with A. K. Gupta). Journal of the Royal Statistical Society, Series B , 45, 60-69.

6. 1983 A pseudo-Bayes confidence region for p Poisson means. Journal of Statistical Computation and Simulation, 17, 11-29.

7. 1983 Models for reflecting prior beliefs of association in contingency tables (with A. K. Gupta). Communications in Statistics, A, 12, 1241-1260.

8. 1983 Bayesian estimation methods for 2x2 contingency tables using mixtures of Dirichlet distributions (with A. K. Gupta). Journal of the American Statistical Association, 78, 708-717.

9. 1984 Empirical Bayes estimation of a set of binomial probabilities. Journal of Statistical Computation and Simulation, 20, 129-144.

10. 1985 Bayesian methods for binomial data with applications to a nonresponse problem (with A. K. Gupta). Journal of the American Statistical Association, 80, 167-173.

11. 1985 A Bayesian treatment of nonresponse when sampling from a dichotomous population. Communications in Statistics, A, 14,947-961.

12. 1985 Bayesian estimation methods for incomplete two-way contingency tables using prior beliefs of association. In Bayesian Statistics 2 (Proceedings of the Second Valencia International Meeting on Bayesian Statistics) , 589-602.

13. 1985 Simultaneous estimation of Poisson means under exchangeable and independence models. Journal of Statistical Computation and Simulation, 23, 1-14.

14. 1987 Empirical Bayes estimation in contingency tables. Communications in Statistics, A, 16, 2459-2485.

15. 1987 Bayesian estimation of odds ratios under independence and exchangeable models. Journal of Statistical Computation and Simulation 27, 251-268.

16. 1988 Estimation of a Poisson mean using discrete mixtures of conjugate priors. Communications in Statistics, A,   17, 245-261.

17. 1988 Computational methods using a Bayesian hierarchical generalized linear model.

Journal of the American Statistical Association 83, 1037-1045.

18. 1988 Bayesian estimation methods for Poisson means using a hierarchical log-linear model. Bayesian Statistics 3 (Proceedings of the Third Valencia International Meeting on Bayesian Statistics), 519-531.

19. 1989 Nuisance parameters and the use of exploratory graphical methods in a Bayesian analysis. The American Statistician., 43, 191-196.

20. 1989 A Bayesian approach to some overdispersion models (with P.A. Pepple). Canadian Journal of Statistics 17, 333-344.

21. 1990 A Bayesian Test for a Two-Way Contingency Table Using Independence Priors. Canadian Journal of Statistics 18, 347-363.

22. 1991 Discussion on papers by Geweke, Wolpert, Evans, Oh and Kass, et. al. Contemporary Mathematics , Vol. 115.

23. 1991 A class of distributions for robustness studies (with M. Delampady and W. Polasek). Journal of Statistical Planning and Inference 28, 291-304.

24. 1992 Algorithms for Bayesian computing and Mathematica. Proceedings of the 22nd Annual Symposium on the Interface of Computer Science and Statistics.

25. 1992 Invited discussion of "Parametrization issues in Bayesian inference" by Hills and Smith. Bayesian Statistics 4 (Proceedings of the Third Valencia International Meeting on Bayesian Statistics) .

26. 1992 Using a probability plot to summarize a unimodal posterior density. Computational Statistics and Data Analysis, 14, 193-205.

27. 1992 A Bayesian analysis of a Poisson random effects model for homerun hitters. The American Statistician 46, 246-253.

28. 1992 Bayesian estimation of normal ogive response curves using Gibbs sampling. Journal of Educational Statistics 17, 251-269.

29. 1992 Bayesian estimation of the polychoric correlation coefficient. Journal of Computational Statistics and Simulation, 44, 47-61.

30. 1993 Bayesian inference of autoregressive time series with mean and variance subject to Markov jumps (with S. Chib). Journal of Business and Economic Statistics, 11, 1-15.

31. 1993 Bayesian regression analysis of binary and polychotomous response data (with S. Chib). Journal of the American Statistical Association, 88, 657-667.

32. 1993 Teaching Bayesian statistics using sampling methods and MINITAB. The American Statistician , 47, 182-191.

33. 1993 Discussion of "A Statistical Analysis of Hitting Streaks in Baseball" by S. Christian Albright. Journal of the American Statistical Association , 88, 1184-1188.

34. 1993 Answering questions about baseball using statistics (with Bill James and Hal Stern). Chance, 6, 17-22.

35. 1994 A Bayesian approach to estimation of GPA's of University of Iowa freshmen under order restrictions. Journal of Educational Statistics , 19, 1-22.

36. 1994 Selecting the normal population with the best regression value - a Bayesian approach (with D. Fong and M. Chow). Journal of Statistical Planning and Inference, 40, 97-111.

37. 1994 Exploring baseball hitting data: what about those breakdown statistics. Journal of the American Statistical Association, 89, 1066-1074.

38. 1995 Bayesian residual analysis for binary response regression models (with Sid Chib). Biometrika, 82, 747-759.

39. 1995 Teaching inference about proportions using Bayes and discrete models. Journal of Statistical Education, v. 3, n. 3.

40. 1996 A MCMC algorithm to fit a general exchangeable model. Communications in Statistics - Simulation and Computation, 25, 575-592.

41. 1996 Computation in Bayesian Econometrics: An Introduction to Markov Chain Monte Carlo (with Sid Chib). In Advances in Econometrics Vol. 11, C. Hill and T. Fomby, JAI Press.

42. 1996 Bayesian probit modeling of binary repeated measures data with an application to a cross-over trial (with Sid Chib).   In Bayesian Biostatistics Casebook , D. Berry and D.   Stangl, editors, Marcel Dekker.

43. 1996 Bayesian selection of log-linear models. Canadian Journal of Statistics, 24, 327-347.

44. 1997 Bayesian tests and model diagnostics in conditionally independent hierarchical models (with Sid Chib). Journal of the American Statistical Association, 92, 916-925.

45. 1997 Bayesian testing and estimation of association in a two-way contingency table.   Journal of the American Statistical Association, 92, 685-693.

46. 1997 Teaching Bayes' rule: a data-oriented approach. The American Statistician, 51, 247-253.

47. 1998 The homerun hitting of Mike Schmidt. Chance 11, 3-11.

48. 1998 Sabermetrics, Encyclopedia of Statistical Sciences, Vol 3, Kotz and Read, eds.

49. 1998 Bayesian analysis of probit models (with Sid Chib), Encyclopedia of Statistical Sciences, Vol 3, Kotz and Read, eds.

50. 1999 MATLAB as an environment for Bayesian computation. Proceedings of the Bayesian Section of the American Statistical Association 1998.

51. 1999 Criticism of a hierarchical model using Bayes factors. Statistics in Medicine, Vol 18, 3, 287-305.

52. 1999 Comment to "Bridging Different Eras in Sport" by Berry, Reese, and Larkey, Journal of the American Statistical Association, 94, 677-680.

53. 2000 Using a Sample Survey Project to Assess the Bayesian Approach for Teaching Statistical Inference, Journal of Statistics Education, Vol 8, num. 1.

54. 2000 Item Response Modeling (with Malay Ghosh). In Generalized Linear Models: a Bayesian Perspective, D. Dey et al, editors.

55. 2001 Using Model/Data Simulations to Detect Streakiness (with Patricia Pepple). The American Statistician, Vol 55, 41-50.

56. 2001 Sequential Ordinal Modeling with Applications to Survival Data (with Sid Chib). Biometrics, Vol. 57, num 3.

57. 2002 Teaching Statistics Using Baseball, Journal of Statistics Education,

58. 2002 Hitting with Runners in Scoring Position, Chance

59. 2002 Teaching Introductory Statistics from a Bayesian Perspective, Proceedings of the International Conference on Teaching Statistics, Cape Town, South Africa.

60. 2002 Smoothing Career Trajectories of Hitters, By the Numbers (Newsletter of the Statistical Analysis Committee of the Society of American Baseball Research), Vol 12, 3, 9-19.

61. 2003 Concepts of Probability of College Students, The American Statistician, Vol 57.

62. 2003 Statistics in Sports (with Jay Bennett), Encyclopedia of Statistical Sciences, Kotz and Read, eds.

63. 2004 Bayesian Methods for Contingency Tables, Encyclopedia of Biostatistics

64. 2004 Bayesian Methods and Simulation-Based Computation for Contingency Tables, Handbook of Statistics, Vol. 25, Bayesian Thinking, Modeling, and Computation

65. 2004 Making Sense of Baseball Statistics: A Statistician's Perspective. Entertainment and Sports Lawyer , November issue.

66. 2004 Streakiness in Team Performance, Chance, Vol. 17, 37-43.

67. 2005 A Batting Average: Does it Represent Ability or Luck?, STATS, 44, Fall 2005/Winter 2005.

68. 2005 An Honors Seminar on Statistics and Sports, Proceedings of the Section of Statistics and Sports of the American Statistical Association.

69. 2005   The Use of Sports in Teaching Statistics (with James Cochran), Anthology of Statistics in Sports, SIAM.

70. 2006 Interpreting Probabilities and Teaching the Subjective Viewpoint, 2006 NCTM Yearbook on Thinking and Reasoning about Data and Chance.

71. 2006 Pitching Statistics, Talent and Luck, and the Best Strikeout Seasons of All-Time, Journal of Quantitative Analysis of Sports, Vol. 2.

72. 2007 Hitting in the Pinch, Statistical Thinking in Sports, J. Albert and R. Koning, editors, Chapman and Hall, accepted 2006.

73. 2007 Numb3rs, Sabermetrics, Joe Jackson, and Steroids, STATS, Fall 2006/Winter 2006

74. 2007 Streaky Hitting in Baseball, Journal of Quantitative Analysis of Sports

75. 2008 Knowledgeable People Can Infer Covariation from a Single X,Y Observation (with Doherty, M. E., Anderson, R. B., Kelley, A. M.), Cognitive Science, Volume 33, Issue 2, pages 183–205, March/April 2009,

76. 2008 Great Streaks, By the Numbers (the Newsletter of the SABR Statistical Analysis Committee), November, 9-13. (This article also appeared with extended discussion in The Baseball Research Journal, Fall 2010, 58-64.

77. 2009 Is Roger Clemens' WHIP Trajectory Unusual?, Chance, Vol 22, 2, 8-20.

78. 2009 Exploring Pitch F/X Data, Proceedings of the 2nd International Conference on Mathematics in Sport, 2009.

79. 2009 Discrete Bayes with R, Technology Innovations in Statistics Education, 3(2).

80. 2009 Comment on "Hierarchical Bayesian Modeling of Hitting Performance in Baseball" (with Phil Birnbaum), Bayesian Analysis, Vol. 4, 4, 653-660.

81. 2010 Sabermetrics: The Past, the Present, and the Future, in Mathematics and Sports, J. Gallian, editor, Mathematical Association of America.

82. 2010 Good Smoothing, in Frontiers of Statistical Decision Making and Bayesian Analysis, edited by M. Chen, D. Dey, P. Muller, D. Sun, and K. Ye, Springer.

83. 2010 Baseball Data at Season, Play-by-Play and Pitch-by-Pitch Levels, Journal of Statistics Education, Vol. 18, Number 3.

84. 2010 Using the Count to Measure Pitching Performance, Journal of Quantitative Analysis of Sports, Vol. 6, Number 4.

85. 2010 Great Streaks, Baseball Research Journal, Vol 39, 2, Fall 2010, 58-64. (This is a republished paper with a new discussion.)

86. 2011 Discrepancy measures for item fit analysis in item response theory (with Sherwin Toribio), Journal of Statistical Computation and Simulation, published on 15 February 2011.

87. 2011 A Graphical View of the SABR Era, Baseball Research Journal, Vol. 40, Issue 2.

88. 2012 Looking Ahead – A Bright Future for JQAS, Journal of Quantitative Analysis of Sports, January 2012

89. 2013 Using Fun in the Statistics Classroom: An Exploratory Study of College Instructors' Hesitations and Motivations (with Lawrence Lesser, Dennis Pearl, Rob Carver, Patricia Erickson, Shonda Keiper, Michael Posner, Amitra Wall, Shu-Min Liao, and Nadia Martin), Journal of Statistics Education.

90. 2013 Logit, Probit, and other Response Functions, accepted for publication in Handbook of Item Response Theory: Models, Statistical Tools, and Applications, Wim van der Linden and Ronald Hambleton, editors, Chapman and Hall.

91. 2013 Looking at Spacings to Access Streakiness, Journal of Quantitative Analysis of Sports, Vol 9, Issue 2, 151-163.

92. 2013 Was Joe DiMaggio Streaky? Baseball Prospectus website (www.baseballprospectus.com), September 24, 2013.

93. 2014 The effect of cerclage in twin gestations with short cervix: A Bayesian analysis (with William Holcomb and Erol Ammon), The Journal of Maternal-Fetal & Neonatal Medicine.

94. 2014 Streakiness in Home Run Hitting. CHANCE, 27(3), 4-9.

95. 2014 Interview with Carl Morris. CHANCE, 27(3), 17-24.

96. 2015 Beyond Runs Expectancy, Journal of Sports Analytics, 1, 1-16.

97. 2015 Introduction to Bayesian item response modelling." International Journal of Quantitative Research in Education 2, no. 3-4: 178-193.

98. 2015 Player evaluation using win probabilities in sports competitions. Wiley Interdisciplinary Reviews: Computational Statistics, 7(5), 316-325.

99. 2015 Attracting Undergraduates to Statistics Through Data Science (with Mark Glickman), Comment to Cobb, G., "Mere Renovation is Too Little Too late: We Need to Rethink Our Undergraduate Curriculum From the Ground Up," The American Statistician, 69.

100. 2016 Improved Component Predictions of Batting and Pitching Measures, *Journal of Quantitative Analysis of Sports*, 12, 2.

101. 2017 Situational Data, Clutch Hitting, and Streakiness, *Handbook on Statistics in Sports*, Chapman and Hall.

102. 2016 An Undergraduate Program in Data Science (with Maria Rizzo), Proceedings of the Meeting of the American Statistical Association.

103. 2017 A Multilevel Bayesian Approach for Modelling Server-Specific Time-to-Serve in Professional Tennis (with Stephanie Kovalchik), *Journal of Quantitative Analysis of Sports*, vol. 13, number 2.

104. 2017 The Do's and Don'ts of Sports Metrics: The Tennis ATP Leaderboard (with Stephanie Kovalchik), Chance, February issue.

105. 2018 Statistical Modeling of the Case Information from the Ohio Attorney General's Sexual Assault Kit Testing Initiative (with Jaimie E. Kerka, Derek J. Heckman, Jon E. Sprague and Lewis O. Maddox), *Journal of Forensic Sciences*, Vol. 63, No. 4, 1122-1133.

106. 2019 Developing Statistical Knowledge for Teaching Graphing of Bivariate Categorical Data (with Stephanie Casey and Andrew Ross), *Journal of Statistics Education*.

107. 2019 Technical Note: Comparison of decision tree and logistic regression models for utilization in sexual assault kit processing (with Jaimie E. Kerka, Chloe Wentzlof, Jon E. Sprague and Lewis O. Maddox), *Journal of Forensic Sciences.*

108. 2020. The Home Run Explosion, to appear in *Science Meets Sport, Cambridge Scholars Publishing.*

109. 2020. Online Statistics Teaching and Learning (with Mine Cetinkaya-Rundel and Jingchen Chen), *Teaching and Learning Mathematics Online,* Chapman and Hall.

Web Articles for Significance Magazine

2010   Defining athletes by statistics: the magical .300 batting average. Published October 21, 2010.

2010   Is Derek Jeter a good fielder? Pubished November 19, 2010.

2010   The Joy of Stats. Published December 07, 2010.

2011   Fans of poor teams have hope for next year – the regression effect,. Published January 4, 2011.

2011   Baseball Hall of Fame … Who didn't get elected? Were steroids to blame? Published January 8, 2011.

2011   Why do home teams win? Published Februrary 4, 2011.

2011   Two streaky performances in Ohio. Published February 14, 2011.

Reviews

1993   Review of The Analysis of Contingency Tables (second edition) by B. S. Everitt, Technometrics, 35, 327-328.

1994   Review of the resampling method of teaching statistics (with Mark Berliner), The American Statistician, 48, 129-131.

2000   Review of Bayesian Methods: An Analysis for Statisticians and Interdisciplinary Researchers, by T. Leonard and J. Hsu, Journal of the American Statistical Association

2001   Review of Applied Stochastic Modeling, Journal of the American Statistical Association

2002   Review of Calculated Bets, The American Statistician, November 2002.

2006   Review of Baseball All-Time Best Hitters, Mathematical Intelligencer, Winter 2006, Vol 28, p. 63-66.

2008   Review of Statistics for Real-Life Sample Surveys: Non-Simple-Random Samples and Weighted Data, Siam Review.

2008   Review of Contemporary Bayesian and Frequentist Statistical Research Methods for Natural Resource Scientists, Journal of the American Statistical Association, December 2008, Vol 103, No. 484, 1708-1709..

2008   Review of Elementary Bayesian Biostatistics, Journal of the American Statistical Association, December, 2008, Vol 103, No. 484, 1712-1713.

2009   Review of Data Manipulation with R, The American Statistician, May 2009.

2009   Review of Bayesian Reliability, Journal of the American Statistical Association, June 2009.

2009   Review of Bayesian Methods for Data Analysis, Third Edition, Journal of the American Statistical Association, June 2009.

2009   Review of Introduction to Probability with R, The American Statistician, May 2009.

2009   Review of The Theory and Practice of Item Response Theory, Journal of the American Statistical Association, December 2009, Vol. 104, No. 488, 1755.

2010   Review of A First Course in Bayesian Statistical Methods, Journal of the American Statistical Association, June 2010.

2011   Review of Bayesian Analysis for the Social Sciences, The American Statistician, February 2011, Vol. 65, No. 1, 62-63.

2011   Review of Bayesian Item Response Modeling: Theory and Applications, Journal of the American Statistical Association, September 2011, Vol. 106, No. 495, 1220.

2011   Review of The Pleasures of Statistics: The Autobiography of Frederick Mosteller, Journal of the American Statistical Association, March 2011, Vol. 196, 378-379.

2011   Review of Moneyball: Brad Pitt, the statistician and the movie (with Ray Stefani),

Significance, Vol.8, No. 4.

2012   Review of Bayesian Decision Analysis: Principles and Practice, Journal of the American Statistical Association, March, 2012

2015   Review of Graphical Data Analysis, Significance, March 2015.

2015   Review of Analytic Methods in Sports, Significance, December 2015.

Active Blogs

Exploring Baseball Data with R https://baseballwithr.wordpress.com

Bayesian Thinking http://learnbayes.wordpress.com/

Exploratory Data Analysis https://exploredata.wordpress.com

Technical Reports

1979   Robust Bayes estimation. Mimeograph Series No. 79-9, Department of Statistics, Purdue University.

1981   Bayes estimation of multivariate hypergeometric proportions with applications to contingency tables (with A. K. Gupta). Technical Report No. 81-09, Department of Mathematics and Statistics, Bowling Green State University.

1983   A gamma-minimax approach for estimating a binomial probability. Technical Report, Department of Mathematics and Statistics, Bowling Green State University.

1984   Estimation of a normal mean using mixtures of normal priors. Technical Report, Department of Mathematics and Statistics, Bowling Green State University.

1989   On the use of power transformations to simplify posterior distributions. Technical Report, Department of Mathematics and Statistics, Bowling Green State University.

1991   Exploring baseball statistics: measuring batting performance.   Technical Report, Department of Mathematics and Statistics, Bowling Green State University.

1992   Applying a Markov switching model to baseball hitting data. Technical Report, Department of Mathematics and Statistics, Bowling Green State University.

1992   Teaching statistical inference using Bayes. Technical Report, Department of Mathematics and Statistics, Bowling Green State University.

1993   Bayesian model checking for binary and categorical response data (with Sid Chib). Technical Report, Department of Mathematics and Statistics, Bowling Green State University.

1993   A practical Bayes approach for longitudinal probit regression models with random effects (with Sid Chib). Technical Report, Department of Mathematics and Statistics,   Bowling Green State University.

1997   Bayesian methods for cumulative, sequential, and two-step ordinal data regression models (with Sid Chib). Technical Report, Department of Mathematics and Statistics,

Bowling Green State University.

2002   Using play-by-play baseball data to develop a better measure of batting performance. Technical Report, Department of Mathematics and Statistics, Bowling Green State University

2005   A Breakdown of a Batter's Plate Appearance: Four Hitting Rates

2006   Introducing Bayes in a First Statistics Class

2008   Lessons from BGSU's web-based mathematics placement exam system (with David Meel and Diem Nguyen)

2009   Bayesian IRT: The Past, the Present, and the Future

2011   On-Base Percentage: The Moneyball Statistic

2018   A Bayesian Redesign of the First Probability/Statistics Course

2019   Bayesian Computing in the Statistics and Data Science Curriculum (with Monika Hu)

Theses Supervised

Ph.D.
        Patricia A. Pepple, "Simultaneous estimation of exponential means and normal variances using Bayesian methods," 1986.

        De-xin Chen, "Bayesian computation methods for the Poly t density," 1992.

        Norman Preston, "Bayesian diagnostics for generalized linear models," 1999.

        Sherwin Toribio, "Bayesian model checking for dichotomous item response models", 2006.

        Fangalong Dong, "Bayesian model checking for multivariate discrete regression problems", 2008.

        Adam Combs, "Bayesian Model Checking Methods for Dichotomous Item Response Theory and Testlet Models", 2014.

M.S.
        John Zimmerman, "Point estimation of a normal mean using exponential power series and t-family priors," 1985.

        Elise Goldie, "Graphics of William Playfair", 1991.

        Kyle Leber, "Park effects", 2006.

        Martina Tayek, "A statistical analysis of banning of literature in Japan between 1926 and 1944", 2008.

        Gina Deom, "A Statistical Analysis of Changes in Ethnic Identity and Ethnic/Racial Self-Classification", 2015.

        Ashley Spangler, "An Exploration of the First Pitch in Baseball", 2017.

        Sarah Kruez, "An Analysis of the Variation in Dressage Judge Scoring", 2017.s

D.J. Heckman, "A Comparison of Classification Methods in Predicting the Presence of DNA Profiles in Sexual Assault Kits, 2018.

Chloe Wentzlof, "A Comparison of Classification Models for Predicting Criminal Case Disposition of Police Crime in the United States, 2019.

Membership in Professional Organizations

Mathematical Association of America
American Statistical Association

Offices Held

Program Chair - Section of Bayesian Statistical Science of the American Statistical Association, 1997.

Program Chair - Section on Statistics in Sports of the American Statistical Association, 1998.

Section Chair - Section on Statistics in Sports of the American Statistical Association, 2000.

Chair, Caucus of Academic Representatives, American Statistical Association, 2008-2011.

Section Chair – Section on Statistics Education of the American Statistical Association, 2014.